



Conformance Test Report

IEC 61851-1, DIN 70121 and ISO 15118 (SLAC & V2G message) test cases — SECC under test (VTB)

Report generated: 2026-10-11 08:00:25

Overall: FAIL

System Under Test

Manufacturer	-
Model / type	-
Software / firmware	Everest testing/main @ 2e710bc8191bd5a29c16a4d0815c6bcd9318c51d
Serial / identification	-
Notes	Nightly CI, all SECC stacks Evse15118D20. SUT config: config-test-conformance-dc-full-ocpp.yaml (one of the nightly's rig cycles, each with its own report)
Transfer mode	DC

Black-box DUT: the internal software stack is not observable by the test system; the identification above was entered by the test operator.

Declared capability profile (PICS/PIXIT)

Capability	PICS/PIXIT	Declared
Energy transfer mode	PICS_CMN_CMN_ChargingMode	dc
Payment options offered	PIXIT_SECC_CMN_PaymentOption / PICS_CMN_CMN_IdentificationMode	ExternalPayment, Contract
Certificate services offered	PIXIT_SECC_CMN_CertificateHandling	Install, Update
Certificate validity checked against current time	PICS_SECC_CertificateValidationCheck	yes
Tester CSMS is the DUT's OCPP backend	PIXIT_SECC_TesterCSMS	yes
Transport security accepted	PIXIT_SECC_CMN_TLS	tcp, tls
Value-added service list (VAS)	PIXIT_SECC_CMN_VAS == serviceDetail / PICS_SECC_VAS	no
Internet access service	PIXIT_SECC_CMN_InternetAccess == internetAccess	no
Metering receipts requested	PIXIT_SECC_CMN_ReceiptRequired	yes

Capability	PICS/PIXIT	Declared
MeterInfo in charge-loop responses	PIXIT_SECC_CMN_MeterInfo == meterInfo	yes
MeteringConfirmation requested (ISO 15118-20)	PICS_CMN_MeteringConfirmationRequested	no
SalesTariff in schedules	PIXIT_SECC_CMN_SalesTariff == salesTariff	no
Control modes offered (ISO 15118-20)	PICS_CMN_ControlMode	Dynamic, Scheduled
Schedule initially unavailable (ISO 15118-20)	PIXIT_SECC_ScheduleRetrievalSuspended	no
DepartureTime considered	PICS_SECC_CMN_DepartureTime	yes
MaxEntriesSAScheduleTuple considered	PICS_SECC_CMN_MaxEntriesSAScheduleTuple	yes
Renegotiation supported	PICS_CMN_CMN_Renegotiation	no
CP State D (ventilation) during charging	PICS_SECC_CMN_EvStateInChargeProgress == D	no
Pause / resume supported	PICS_SECC_CMN_Pause	no
Welding detection supported	PICS_SECC_DC_WeldingDetection	yes
ISO 15118-2 supported	PICS_SECC_CMN_ISO15118_2	yes
ISO 15118-20 supported	PICS_SECC_CMN_ISO15118_20	yes
DIN SPEC 70121 supported (DC)	PICS_SECC_DC_DIN70121	yes
DC energy transfer mode(s) advertised	PIXIT_SECC_DC_SupportedEnergyTransferMode	DC_extended
CableCheck answers Ongoing	PIXIT_SECC_DC_CableCheckOngoing == ongoing	yes
Authorization answers Ongoing	PIXIT_SECC_CMN_AuthorizationOngoing == ongoing	no
ChargeParameterDiscovery answers Ongoing	PIXIT_SECC_CMN_ChargeParameterDiscoveryOngoing == ongoing	no
CM_VALIDATE (BCB-toggle validation)	PIXIT_SECC_CMN_CmValidate == cmValidate	no
Architecture makes validation unnecessary	PIXIT_SECC_CMN_ArchitectureValidationNotRequired	no
CM_AMP_MAP supported	PIXIT_CMN_CMN_CmAmpMap	no
SECC initiates CM_AMP_MAP	PICS_CMN_CMN_InitiateCmAmpMap	no

Capability	PICS/PIXIT	Declared
Self-initiated wake-up from pause	PIXIT_CMN_CMN_WakeUp < PICS_CMN_CMN_WakeUp	no
AC connection-loss handling	PIXIT_SECC_AC_ConnectionLossHandling	n/a (AC-only)
AC CP duty cycle after plug-in	PIXIT_SECC_AC_InitialDutyCycle	n/a (AC-only)
IEC 61851-1 basic charging (AC)	PIXIT_SECC_IEC61851_1_BasicCharging	n/a (AC-only)
Identification modes supported	PICS_CMN_CMN_IdentificationMode	ExternalPayment
Certificate services used	PIXIT_EVCC_CMN_CertificateHandling	none
Renegotiation supported	PICS_CMN_CMN_Renegotiation	no
Pause / resume (sleep mode) supported	PIXIT_EVCC_CMN_Pause	no
Optimises the charging profile against sales tariffs	PIXIT_EVCC_CMN_ChargingProfileOptimization	unknown
States MaxNumberOfPhasesInUse (AC)	PIXIT_EVCC_AC_MaxNumberOfPhasesInUse	n/a (AC-only)
Queries value-added services (ServiceDetail)	PIXIT_EVCC_CMN_VAS	no
Transport security requested	PIXIT_EVCC_CMN_TLS	none_
Welding detection performed (DC)	PIXIT_EVCC_DC_WeldingDetection	weldingDetection
Reaction to a Pmax=0 W schedule	PICS_EVCC_CMN_PmaxSchedulewithZeroPow	noSleep
SLAC validation (CM_VALIDATE / BCB toggle)	PIXIT_EVCC_CMN_CmValidate	unknown
AC connection-loss handling	PIXIT_EVCC_AC_ConnectionLossHandling	n/a (AC-only)
CM_AMP_MAP supported	PIXIT_CMN_CMN_CmAmpMap	no
EV initiates CM_AMP_MAP	PICS_CMN_CMN_InitiateCmAmpMap	no

Declared by the test operator (profile v1); the test-case selection of this run was derived from this declaration, mirroring the ISO 15118-4 ATS control part ([V2G4-018]/[V2G4-019]). Test cases the declaration marks not applicable were deselected by default; any that were explicitly force-run are annotated "declared N/A (operator force-run)" at their result.

Test families & variants

ISO 15118-3 SLAC (-5)	DUT (dut)
ISO 15118-2 message layer (-4)	DUT (dut)

DIN SPEC 70121 DC charging (DIN 70122)	DUT (dut)
ISO 15118-20 (ISO 15118-21 ATS)	DUT (dut)
PIONIX interop testing (vendor-defined)	DUT (dut)

Test Environment

Test suite version	-
Test suite git SHA	-
Test suite branch	-
Mode	HW (CHARGEBRIDGE, BLACK-BOX DUT)
Host	CI runner
Kernel	6.8.0-86-generic
PLC taps (EVSE / EV)	- / cb_plc_ev
MQTT broker	/tmp/everest-conformance-mqtt.sock:1883
EVERest prefix	-
Pause between TCs	3 s
EV BSP module id	ev_bsp

Totals

ISO 15118-3 SLAC (-5)

DUT (dut)
45 pass
3 fail
0 not run
1 inconclusive

ISO 15118-2 message layer (-4)

DUT (dut)
150 pass
0 fail
1 not run
0 inconclusive

DIN SPEC 70121 DC charging (DIN 70122)

DUT (dut)
111 pass
4 fail
0 not run
0 inconclusive

ISO 15118-20 (ISO 15118-21 ATS)

DUT (dut)
123 pass
9 fail
0 not run
0 inconclusive

PIONIX interop testing (vendor-defined)

DUT (dut)
6 pass
0 fail
0 not run
0 inconclusive

Verdict semantics: expected failures (author-flagged known deviations / non-deterministic cases) are reported as

FAIL EXPECTED — genuine reds that are not hidden and must be explicitly accepted by the operator. A FAIL (or FAIL EXPECTED) accepted by the operator is reported as **ACCEPTED FAIL** with the mandatory justification and does not count against the overall verdict. Overall verdict is PASS only if no test case FAILs (or is left FAIL EXPECTED without acceptance) on any variant.

Summary matrix — ISO 15118-3 SLAC (-5)

Test case	DUT (dut)	
	Verdict	Duration
CmSlacParm		
TC_SECC_CMN_VTB_CmSlacParm_001	PASS	4.77 s
TC_SECC_CMN_VTB_CmSlacParm_002	PASS	4.00 s
TC_SECC_CMN_VTB_CmSlacParm_003	PASS	4.00 s
TC_SECC_CMN_VTB_CmSlacParm_004	PASS	54.49 s
TC_SECC_CMN_VTB_CmSlacParm_005	PASS	54.89 s
TC_SECC_CMN_VTB_CmSlacParm_006	PASS	55.09 s
TC_SECC_CMN_VTB_CmSlacParm_007	PASS	21.05 s
TC_SECC_CMN_VTB_CmSlacParm_008	PASS	9.32 s
TC_SECC_CMN_VTB_CmSlacParm_009	PASS	9.15 s
AttenuationCharacterization		
TC_SECC_CMN_VTB_AttenuationCharacterization_001	PASS	6.03 s
TC_SECC_CMN_VTB_AttenuationCharacterization_002	PASS	5.80 s
TC_SECC_CMN_VTB_AttenuationCharacterization_003	PASS	6.03 s
TC_SECC_CMN_VTB_AttenuationCharacterization_004	PASS	6.56 s
TC_SECC_CMN_VTB_AttenuationCharacterization_005	PASS	6.40 s
TC_SECC_CMN_VTB_AttenuationCharacterization_006	PASS	7.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_007	PASS	6.60 s
TC_SECC_CMN_VTB_AttenuationCharacterization_008	PASS	5.99 s
TC_SECC_CMN_VTB_AttenuationCharacterization_009	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_010	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_011	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_012	PASS	5.79 s
TC_SECC_CMN_VTB_AttenuationCharacterization_013	PASS	5.60 s
TC_SECC_CMN_VTB_AttenuationCharacterization_014	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_015	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_016	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_017	PASS	6.00 s
TC_SECC_CMN_VTB_AttenuationCharacterization_018	PASS	6.00 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_CMN_VTB_AttenuationCharacterization_019	PASS	21.02 s
TC_SECC_CMN_VTB_AttenuationCharacterization_020	INCONCLUSIVE precondition not established	19.04 s
CmValidate		
TC_SECC_CMN_VTB_CmValidate_010	FAIL	4.40 s
CmSlacMatch		
TC_SECC_CMN_VTB_CmSlacMatch_001	PASS	5.14 s
TC_SECC_CMN_VTB_CmSlacMatch_003	PASS	5.20 s
TC_SECC_CMN_VTB_CmSlacMatch_005	PASS	15.41 s
TC_SECC_CMN_VTB_CmSlacMatch_007	PASS	15.00 s
TC_SECC_CMN_VTB_CmSlacMatch_009	PASS	15.00 s
TC_SECC_CMN_VTB_CmSlacMatch_011	PASS	15.00 s
TC_SECC_CMN_VTB_CmSlacMatch_013	PASS	15.00 s
TC_SECC_CMN_VTB_CmSlacMatch_015	PASS	15.00 s
TC_SECC_CMN_VTB_CmSlacMatch_017	PASS	15.00 s
TC_SECC_CMN_VTB_CmSlacMatch_019	PASS	15.20 s
TC_SECC_CMN_VTB_CmSlacMatch_021	PASS	15.80 s
TC_SECC_CMN_VTB_CmSlacMatch_023	PASS	20.20 s
PLCLinkStatus		
TC_SECC_CMN_VTB_PLCLinkStatus_001	PASS	5.06 s
TC_SECC_CMN_VTB_PLCLinkStatus_002	PASS	20.12 s
TC_SECC_CMN_VTB_PLCLinkStatus_003	PASS	5.28 s
TC_SECC_CMN_VTB_PLCLinkStatus_004	PASS	4.61 s
TC_SECC_CMN_VTB_PLCLinkStatus_005	FAIL	6.99 s
TC_SECC_DC_VTB_PLCLinkStatus_004	FAIL	15.01 s
TC_SECC_DC_VTB_PLCLinkStatus_005	PASS	18.84 s

Summary matrix — ISO 15118-2 message layer (-4)

Test case	DUT (dut)	
	Verdict	Duration
SupportedAppProtocol		
TC_SECC_CMN_VTB_SupportedAppProtocol_001	PASS	5.70 s
TC_SECC_CMN_VTB_SupportedAppProtocol_002	PASS	6.00 s
TC_SECC_CMN_VTB_SupportedAppProtocol_003	PASS	23.82 s
TC_SECC_CMN_VTB_SupportedAppProtocol_004	PASS	6.17 s
TC_SECC_CMN_VTB_SupportedAppProtocol_005	PASS	30.23 s
TC_SECC_CMN_VTB_SupportedAppProtocol_006	PASS	5.77 s
SessionSetup		
TC_SECC_CMN_VTB_SessionSetup_001	PASS	5.91 s
TC_SECC_CMN_VTB_SessionSetup_002	PASS	6.00 s
TC_SECC_CMN_VTB_SessionSetup_003	PASS	23.02 s
TC_SECC_CMN_VTB_SessionSetup_004	PASS	23.60 s
ServiceDiscovery		
TC_SECC_CMN_VTB_ServiceDiscovery_001	PASS	6.30 s
TC_SECC_CMN_VTB_ServiceDiscovery_002	PASS	6.40 s
TC_SECC_CMN_VTB_ServiceDiscovery_003	PASS	6.60 s
TC_SECC_CMN_VTB_ServiceDiscovery_004	PASS	69.89 s
PaymentServiceSelection		
TC_SECC_CMN_VTB_PaymentServiceSelection_001	PASS	5.80 s
TC_SECC_CMN_VTB_PaymentServiceSelection_003	PASS	6.40 s
TC_SECC_CMN_VTB_PaymentServiceSelection_004	PASS	6.60 s
TC_SECC_CMN_VTB_PaymentServiceSelection_005	PASS	6.00 s
TC_SECC_CMN_VTB_PaymentServiceSelection_006	PASS	6.01 s
TC_SECC_CMN_VTB_PaymentServiceSelection_007	PASS	6.39 s
TC_SECC_CMN_VTB_PaymentServiceSelection_008	PASS	70.69 s
TC_SECC_CMN_VTB_PaymentServiceSelection_010	PASS	5.91 s
PaymentDetails		
TC_SECC_CMN_VTB_PaymentDetails_001	PASS	6.39 s
TC_SECC_CMN_VTB_PaymentDetails_002	PASS	6.20 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_CMN_VTB_PaymentDetails_003	PASS	6.80 s
TC_SECC_CMN_VTB_PaymentDetails_004	PASS	6.10 s
TC_SECC_CMN_VTB_PaymentDetails_005	PASS	5.90 s
TC_SECC_CMN_VTB_PaymentDetails_006	PASS	69.89 s
TC_SECC_CMN_VTB_PaymentDetails_007	PASS	6.31 s
TC_SECC_CMN_VTB_PaymentDetails_008	PASS	6.80 s
TC_SECC_CMN_VTB_PaymentDetails_009	PASS	6.20 s
TC_SECC_CMN_VTB_PaymentDetails_010	PASS	6.80 s
Authorization		
TC_SECC_CMN_VTB_Authorization_001	PASS	7.18 s
TC_SECC_CMN_VTB_Authorization_002	PASS	7.00 s
TC_SECC_CMN_VTB_Authorization_003	PASS	6.40 s
TC_SECC_CMN_VTB_Authorization_004	PASS	6.00 s
TC_SECC_CMN_VTB_Authorization_005	PASS	6.20 s
TC_SECC_CMN_VTB_Authorization_006	PASS	6.80 s
TC_SECC_CMN_VTB_Authorization_007	PASS	6.00 s
TC_SECC_CMN_VTB_Authorization_008	PASS	70.29 s
TC_SECC_CMN_VTB_Authorization_009	PASS	70.60 s
TC_SECC_CMN_VTB_Authorization_010	PASS	6.11 s
TC_SECC_CMN_VTB_Authorization_011	PASS	6.00 s
TC_SECC_CMN_VTB_Authorization_012	PASS	6.80 s
TC_SECC_CMN_VTB_Authorization_013	PASS	7.00 s
ChargeParameterDiscovery		
TC_SECC_CMN_VTB_ChargeParameterDiscovery_001	PASS	6.60 s
TC_SECC_CMN_VTB_ChargeParameterDiscovery_002	PASS	70.89 s
TC_SECC_DC_VTB_ChargeParameterDiscovery_001	PASS	7.11 s
TC_SECC_DC_VTB_ChargeParameterDiscovery_002	PASS	7.00 s
TC_SECC_DC_VTB_ChargeParameterDiscovery_003	PASS	6.99 s
TC_SECC_DC_VTB_ChargeParameterDiscovery_004	PASS	7.00 s
TC_SECC_DC_VTB_ChargeParameterDiscovery_006	PASS	7.60 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_DC_VTB_ChargeParameterDiscovery_012	PASS	7.40 s
TC_SECC_DC_VTB_ChargeParameterDiscovery_016	PASS	7.00 s
CableCheck		
TC_SECC_DC_VTB_CableCheck_001	PASS	11.00 s
TC_SECC_DC_VTB_CableCheck_003	PASS	7.39 s
TC_SECC_DC_VTB_CableCheck_004	PASS	8.00 s
TC_SECC_DC_VTB_CableCheck_005	PASS	71.49 s
TC_SECC_DC_VTB_CableCheck_006	PASS	11.51 s
TC_SECC_DC_VTB_CableCheck_008	PASS	9.00 s
PreCharge		
TC_SECC_DC_VTB_PreCharge_001	PASS	11.60 s
TC_SECC_DC_VTB_PreCharge_002	PASS	11.00 s
TC_SECC_DC_VTB_PreCharge_003	PASS	11.30 s
TC_SECC_DC_VTB_PreCharge_004	PASS	75.19 s
PowerDelivery		
TC_SECC_DC_VTB_PowerDelivery_001	PASS	11.81 s
TC_SECC_DC_VTB_PowerDelivery_002	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_003	PASS	12.00 s
TC_SECC_DC_VTB_PowerDelivery_004	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_005	PASS	12.00 s
TC_SECC_DC_VTB_PowerDelivery_006	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_007	PASS	12.00 s
TC_SECC_DC_VTB_PowerDelivery_008	PASS	12.00 s
TC_SECC_DC_VTB_PowerDelivery_009	PASS	75.89 s
TC_SECC_DC_VTB_PowerDelivery_010	PASS	77.00 s
TC_SECC_DC_VTB_PowerDelivery_013	PASS	12.11 s
TC_SECC_DC_VTB_PowerDelivery_014	PASS	13.20 s
TC_SECC_DC_VTB_PowerDelivery_015	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_016	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_017	PASS	13.00 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_DC_VTB_PowerDelivery_018	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_019	PASS	13.00 s
TC_SECC_DC_VTB_PowerDelivery_020	PASS	13.40 s
TC_SECC_DC_VTB_PowerDelivery_021	PASS	13.20 s
CurrentDemand		
TC_SECC_DC_VTB_CurrentDemand_001	PASS	11.81 s
TC_SECC_DC_VTB_CurrentDemand_002	PASS	12.40 s
TC_SECC_DC_VTB_CurrentDemand_003	PASS	12.40 s
TC_SECC_DC_VTB_CurrentDemand_004	PASS	12.20 s
TC_SECC_DC_VTB_CurrentDemand_005	PASS	75.89 s
TC_SECC_DC_VTB_CurrentDemand_006	PASS	12.11 s
TC_SECC_DC_VTB_CurrentDemand_007	PASS	12.00 s
TC_SECC_DC_VTB_CurrentDemand_008	PASS	12.00 s
TC_SECC_DC_VTB_CurrentDemand_009	PASS	12.00 s
MeteringReceipt		
TC_SECC_DC_VTB_MeteringReceipt_001	PASS	12.20 s
TC_SECC_DC_VTB_MeteringReceipt_002	PASS	12.00 s
TC_SECC_DC_VTB_MeteringReceipt_003	PASS	12.00 s
TC_SECC_DC_VTB_MeteringReceipt_004	PASS	12.00 s
TC_SECC_DC_VTB_MeteringReceipt_005	PASS	76.69 s
TC_SECC_DC_VTB_MeteringReceipt_006	PASS	12.31 s
TC_SECC_DC_VTB_MeteringReceipt_007	PASS	12.00 s
WeldingDetection		
TC_SECC_DC_VTB_WeldingDetection_001	PASS	13.61 s
TC_SECC_DC_VTB_WeldingDetection_002	PASS	13.00 s
TC_SECC_DC_VTB_WeldingDetection_003	PASS	13.00 s
TC_SECC_DC_VTB_WeldingDetection_004	PASS	76.69 s
TC_SECC_DC_VTB_WeldingDetection_005	PASS	14.51 s
SessionStop		
TC_SECC_DC_VTB_SessionStop_002	PASS	13.78 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_DC_VTB_SessionStop_006	PASS	14.20 s
TC_SECC_DC_VTB_SessionStop_007	PASS	13.60 s
TC_SECC_DC_VTB_SessionStop_008	PASS	13.00 s
TC_SECC_DC_VTB_SessionStop_009	PASS	77.08 s
V2GTPSessionSetup		
TC_SECC_CMN_VTB_V2GTPSessionSetup_001	PASS	6.04 s
TC_SECC_CMN_VTB_V2GTPSessionSetup_002	PASS	10.00 s
TC_SECC_CMN_VTB_V2GTPSessionSetup_003	PASS	10.00 s
TC_SECC_CMN_VTB_V2GTPSessionSetup_004	PASS	10.00 s
TC_SECC_CMN_VTB_V2GTPSessionSetup_005	PASS	10.00 s
V2GTPSDP		
TC_SECC_CMN_VTB_V2GTPSDP_001	PASS	5.79 s
TC_SECC_CMN_VTB_V2GTPSDP_002	PASS	8.00 s
TC_SECC_CMN_VTB_V2GTPSDP_003	PASS	8.80 s
TC_SECC_CMN_VTB_V2GTPSDP_004	PASS	8.20 s
TC_SECC_CMN_VTB_V2GTPSDP_005	PASS	8.00 s
SDP		
TC_SECC_CMN_VTB_SDP_001	PASS	5.80 s
TC_SECC_CMN_VTB_SDP_002	PASS	6.00 s
TC_SECC_CMN_VTB_SDP_003	PASS	6.00 s
TC_SECC_CMN_VTB_SDP_004	PASS	40.12 s
TC_SECC_CMN_VTB_SDP_005	PASS	40.01 s
TC_SECC_CMN_VTB_SDP_006	PASS	40.02 s
DinChargeParameterDiscovery		
TC_SECC_DC_VTB_DinChargeParameterDiscovery_008	NOT RUN not applicable (ATS selection)	0.00 s
CertificateInstallation		
TC_SECC_CMN_VTB_CertificateInstallation_001	PASS	7.00 s
TC_SECC_CMN_VTB_CertificateInstallation_002	PASS	6.80 s
TC_SECC_CMN_VTB_CertificateInstallation_003	PASS	6.00 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_CMN_VTB_CertificateInstallation_004	PASS	69.89 s
TC_SECC_CMN_VTB_CertificateInstallation_005	PASS	6.11 s
TC_SECC_CMN_VTB_CertificateInstallation_006	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateInstallation_007	PASS	6.20 s
TC_SECC_CMN_VTB_CertificateInstallation_008	PASS	6.80 s
CertificateUpdate		
TC_SECC_CMN_VTB_CertificateUpdate_001	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_002	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_003	PASS	6.20 s
TC_SECC_CMN_VTB_CertificateUpdate_004	PASS	70.69 s
TC_SECC_CMN_VTB_CertificateUpdate_005	PASS	6.11 s
TC_SECC_CMN_VTB_CertificateUpdate_006	PASS	5.99 s
TC_SECC_CMN_VTB_CertificateUpdate_007	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_008	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_009	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_010	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_011	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_012	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_013	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_014	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_015	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_016	PASS	6.00 s
TC_SECC_CMN_VTB_CertificateUpdate_017	PASS	6.00 s

Summary matrix — DIN SPEC 70121 DC charging (DIN 70122)

Test case	DUT (dut)	
	Verdict	Duration
DinV2gtpSessionSetup		
TC_SECC_DC_VTB_DinV2gtpSessionSetup_001	PASS	6.40 s
TC_SECC_DC_VTB_DinV2gtpSessionSetup_002	FAIL	12.00 s
TC_SECC_DC_VTB_DinV2gtpSessionSetup_003	FAIL	12.00 s
TC_SECC_DC_VTB_DinV2gtpSessionSetup_004	FAIL	12.60 s
DinV2gtpSdp		
TC_SECC_DC_VTB_DinV2gtpSdp_001	PASS	6.60 s
DinSdp		
TC_SECC_DC_VTB_DinSdp_001	PASS	5.54 s
TC_SECC_DC_VTB_DinSdp_002	PASS	6.80 s
DinSupportedAppProtocol		
TC_SECC_DC_VTB_DinSupportedAppProtocol_001	PASS	6.42 s
TC_SECC_DC_VTB_DinSupportedAppProtocol_002	PASS	6.00 s
TC_SECC_DC_VTB_DinSupportedAppProtocol_003	PASS	23.82 s
TC_SECC_DC_VTB_DinSupportedAppProtocol_004	PASS	6.17 s
TC_SECC_DC_VTB_DinSupportedAppProtocol_005	PASS	6.00 s
DinSessionSetup		
TC_SECC_DC_VTB_DinSessionSetup_001	PASS	5.77 s
TC_SECC_DC_VTB_DinSessionSetup_002	PASS	6.00 s
TC_SECC_DC_VTB_DinSessionSetup_003	PASS	23.02 s
TC_SECC_DC_VTB_DinSessionSetup_004	PASS	21.00 s
DinServiceDiscovery		
TC_SECC_DC_VTB_DinServiceDiscovery_001	PASS	6.60 s
TC_SECC_DC_VTB_DinServiceDiscovery_002	PASS	6.40 s
TC_SECC_DC_VTB_DinServiceDiscovery_003	PASS	6.60 s
TC_SECC_DC_VTB_DinServiceDiscovery_004	PASS	69.89 s
TC_SECC_DC_VTB_DinServiceDiscovery_005	PASS	7.71 s
TC_SECC_DC_VTB_DinServiceDiscovery_006	PASS	21.82 s
TC_SECC_DC_VTB_DinServiceDiscovery_008	PASS	21.51 s

Test case	DUT (dut)	
	Verdict	Duration
DinServicePaymentSelection		
TC_SECC_DC_VTB_DinServicePaymentSelection_001	PASS	6.47 s
TC_SECC_DC_VTB_DinServicePaymentSelection_002	PASS	7.00 s
TC_SECC_DC_VTB_DinServicePaymentSelection_003	PASS	6.60 s
TC_SECC_DC_VTB_DinServicePaymentSelection_004	PASS	6.00 s
TC_SECC_DC_VTB_DinServicePaymentSelection_005	PASS	69.89 s
TC_SECC_DC_VTB_DinServicePaymentSelection_006	PASS	20.93 s
TC_SECC_DC_VTB_DinServicePaymentSelection_007	PASS	6.18 s
TC_SECC_DC_VTB_DinServicePaymentSelection_008	PASS	21.03 s
DinContractAuthentication		
TC_SECC_DC_VTB_DinContractAuthentication_001	PASS	6.96 s
TC_SECC_DC_VTB_DinContractAuthentication_002	PASS	6.40 s
TC_SECC_DC_VTB_DinContractAuthentication_003	PASS	6.00 s
TC_SECC_DC_VTB_DinContractAuthentication_004	PASS	69.89 s
TC_SECC_DC_VTB_DinContractAuthentication_005	PASS	20.93 s
TC_SECC_DC_VTB_DinContractAuthentication_006	FAIL	6.18 s
TC_SECC_DC_VTB_DinContractAuthentication_007	PASS	21.03 s
DinChargeParameterDiscovery		
TC_SECC_DC_VTB_DinChargeParameterDiscovery_001	PASS	6.86 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_002	PASS	7.00 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_003	PASS	7.00 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_004	PASS	7.00 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_005	PASS	7.00 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_006	PASS	70.88 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_007	PASS	21.93 s
TC_SECC_DC_VTB_DinChargeParameterDiscovery_009	PASS	22.21 s
DinCableCheck		
TC_SECC_DC_VTB_DinCableCheck_001	PASS	11.41 s
TC_SECC_DC_VTB_DinCableCheck_003	PASS	7.39 s
TC_SECC_DC_VTB_DinCableCheck_004	PASS	8.00 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_DC_VTB_DinCableCheck_005	PASS	71.49 s
TC_SECC_DC_VTB_DinCableCheck_006	PASS	8.51 s
TC_SECC_DC_VTB_DinCableCheck_007	PASS	11.60 s
TC_SECC_DC_VTB_DinCableCheck_008	PASS	11.00 s
TC_SECC_DC_VTB_DinCableCheck_009	PASS	11.00 s
TC_SECC_DC_VTB_DinCableCheck_010	PASS	11.40 s
TC_SECC_DC_VTB_DinCableCheck_011	PASS	11.60 s
TC_SECC_DC_VTB_DinCableCheck_012	PASS	11.40 s
TC_SECC_DC_VTB_DinCableCheck_013	PASS	11.60 s
TC_SECC_DC_VTB_DinCableCheck_014	PASS	11.00 s
TC_SECC_DC_VTB_DinCableCheck_015	PASS	21.82 s
TC_SECC_DC_VTB_DinCableCheck_016	PASS	11.18 s
TC_SECC_DC_VTB_DinCableCheck_017	PASS	11.00 s
TC_SECC_DC_VTB_DinCableCheck_018	PASS	11.00 s
TC_SECC_DC_VTB_DinCableCheck_019	PASS	11.00 s
TC_SECC_DC_VTB_DinCableCheck_020	PASS	11.40 s
TC_SECC_DC_VTB_DinCableCheck_021	PASS	8.19 s
TC_SECC_DC_VTB_DinCableCheck_023	PASS	22.34 s
DinPreCharge		
TC_SECC_DC_VTB_DinPreCharge_001	PASS	11.94 s
TC_SECC_DC_VTB_DinPreCharge_002	PASS	11.60 s
TC_SECC_DC_VTB_DinPreCharge_003	PASS	11.00 s
TC_SECC_DC_VTB_DinPreCharge_004	PASS	74.89 s
TC_SECC_DC_VTB_DinPreCharge_005	PASS	11.11 s
TC_SECC_DC_VTB_DinPreCharge_006	PASS	13.40 s
TC_SECC_DC_VTB_DinPreCharge_007	PASS	26.42 s
TC_SECC_DC_VTB_DinPreCharge_008	PASS	26.23 s
DinPowerDelivery		
TC_SECC_DC_VTB_DinPowerDelivery_001	PASS	11.84 s
TC_SECC_DC_VTB_DinPowerDelivery_002	PASS	12.40 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_DC_VTB_DinPowerDelivery_003	PASS	11.60 s
TC_SECC_DC_VTB_DinPowerDelivery_004	PASS	12.00 s
TC_SECC_DC_VTB_DinPowerDelivery_005	PASS	12.00 s
TC_SECC_DC_VTB_DinPowerDelivery_006	PASS	12.01 s
TC_SECC_DC_VTB_DinPowerDelivery_007	PASS	11.99 s
TC_SECC_DC_VTB_DinPowerDelivery_008	PASS	12.00 s
TC_SECC_DC_VTB_DinPowerDelivery_009	PASS	38.64 s
TC_SECC_DC_VTB_DinPowerDelivery_010	PASS	23.38 s
TC_SECC_DC_VTB_DinPowerDelivery_011	PASS	27.01 s
TC_SECC_DC_VTB_DinPowerDelivery_012	PASS	26.80 s
TC_SECC_DC_VTB_DinPowerDelivery_013	PASS	26.23 s
TC_SECC_DC_VTB_DinPowerDelivery_014	PASS	28.00 s
DinCurrentDemand		
TC_SECC_DC_VTB_DinCurrentDemand_001	PASS	11.57 s
TC_SECC_DC_VTB_DinCurrentDemand_002	PASS	12.20 s
TC_SECC_DC_VTB_DinCurrentDemand_003	PASS	12.00 s
TC_SECC_DC_VTB_DinCurrentDemand_004	PASS	75.89 s
TC_SECC_DC_VTB_DinCurrentDemand_005	PASS	26.53 s
TC_SECC_DC_VTB_DinCurrentDemand_006	PASS	27.13 s
DinWeldingDetection		
TC_SECC_DC_VTB_DinWeldingDetection_001	PASS	13.80 s
TC_SECC_DC_VTB_DinWeldingDetection_002	PASS	13.50 s
TC_SECC_DC_VTB_DinWeldingDetection_003	PASS	13.50 s
TC_SECC_DC_VTB_DinWeldingDetection_004	PASS	77.09 s
TC_SECC_DC_VTB_DinWeldingDetection_005	PASS	14.41 s
TC_SECC_DC_VTB_DinWeldingDetection_006	PASS	28.32 s
TC_SECC_DC_VTB_DinWeldingDetection_007	PASS	28.25 s
DinSessionStop		
TC_SECC_DC_VTB_DinSessionStop_001	PASS	15.39 s
TC_SECC_DC_VTB_DinSessionStop_002	PASS	15.20 s

Test case	DUT (dut)	
	Verdict	Duration
TC_SECC_DC_VTB_DinSessionStop_003	PASS	14.20 s
TC_SECC_DC_VTB_DinSessionStop_004	PASS	14.00 s
TC_SECC_DC_VTB_DinSessionStop_005	PASS	77.89 s
TC_SECC_DC_VTB_DinSessionStop_006	PASS	13.91 s
TC_SECC_DC_VTB_DinSessionStop_007	PASS	14.00 s
TC_SECC_DC_VTB_DinSessionStop_008	PASS	37.83 s
TC_SECC_DC_VTB_DinSessionStop_009	PASS	14.87 s
TC_SECC_DC_VTB_DinSessionStop_010	PASS	28.32 s
TC_SECC_DC_VTB_DinSessionStop_011	PASS	28.79 s
TC_SECC_DC_VTB_DinSessionStop_012	PASS	28.25 s
TC_SECC_DC_VTB_DinSessionStop_013	PASS	28.90 s

Summary matrix — ISO 15118-20 (ISO 15118-21 ATS)

Test case	DUT (dut)	
	Verdict	Duration
SDP		
TC21_SECC_SDP_001	PASS	5.60 s
TC21_SECC_SDP_002	PASS	6.00 s
TC21_SECC_SDP_003	PASS	18.61 s
TC21_SECC_SDP_004	PASS	18.00 s
V2GTPSDP		
TC21_SECC_V2GTPSDP_001	PASS	5.97 s
TC21_SECC_V2GTPSDP_002	PASS	18.62 s
TC21_SECC_V2GTPSDP_003	PASS	18.00 s
TC21_SECC_V2GTPSDP_004	PASS	18.20 s
TC21_SECC_V2GTPSDP_005	PASS	18.80 s
TC21_SECC_V2GTPSDP_006	PASS	18.00 s
TC21_SECC_V2GTPSDP_007	PASS	18.00 s
V2GTPSupportedAppProtocol		
TC21_SECC_V2GTPSupportedAppProtocol_001	PASS	5.58 s
TC21_SECC_V2GTPSupportedAppProtocol_002	PASS	6.00 s
TC21_SECC_V2GTPSupportedAppProtocol_003	PASS	22.82 s
TC21_SECC_V2GTPSupportedAppProtocol_004	PASS	23.00 s
TC21_SECC_V2GTPSupportedAppProtocol_005	PASS	23.80 s
TC21_SECC_V2GTPSupportedAppProtocol_006	PASS	23.20 s
TC21_SECC_V2GTPSupportedAppProtocol_007	PASS	23.00 s
TC21_SECC_V2GTPSupportedAppProtocol_008	PASS	23.00 s
V2GTPCommonMessages		
TC21_SECC_V2GTPCommonMessages_001	PASS	6.00 s
TC21_SECC_V2GTPCommonMessages_002	PASS	6.00 s
TC21_SECC_V2GTPCommonMessages_003	PASS	22.82 s
TC21_SECC_V2GTPCommonMessages_004	PASS	23.00 s
TC21_SECC_V2GTPCommonMessages_005	PASS	23.00 s
TC21_SECC_V2GTPCommonMessages_006	PASS	23.00 s

Test case	DUT (dut)	
	Verdict	Duration
TC21_SECC_V2GTPCommonMessages_007	FAIL	10.18 s
TC21_SECC_V2GTPCommonMessages_008	PASS	22.82 s
SupportedAppProtocol		
TC21_SECC_SupportedAppProtocol_001	PASS	5.79 s
TC21_SECC_SupportedAppProtocol_002	PASS	6.00 s
TC21_SECC_SupportedAppProtocol_003	PASS	6.00 s
TC21_SECC_SupportedAppProtocol_004	FAIL	6.00 s
SessionSetup		
TC21_SECC_SessionSetup_002	PASS	6.00 s
TC21_SECC_SessionSetup_003	PASS	23.82 s
TC21_SECC_SessionSetup_004	PASS	6.17 s
TC21_SECC_SessionSetup_005	PASS	6.60 s
AuthorizationSetup		
TC21_SECC_AuthorizationSetup_001	PASS	6.00 s
TC21_SECC_AuthorizationSetup_002	PASS	6.40 s
TC21_SECC_AuthorizationSetup_003	PASS	7.00 s
TC21_SECC_AuthorizationSetup_004	PASS	70.49 s
TC21_SECC_AuthorizationSetup_005	PASS	6.11 s
CertificateInstallation		
TC21_SECC_CertificateInstallation_001	PASS	6.60 s
TC21_SECC_CertificateInstallation_002	PASS	7.00 s
TC21_SECC_CertificateInstallation_003	PASS	7.00 s
TC21_SECC_CertificateInstallation_004	PASS	7.00 s
TC21_SECC_CertificateInstallation_005	PASS	6.99 s
TC21_SECC_CertificateInstallation_006	PASS	6.40 s
TC21_SECC_CertificateInstallation_007	PASS	6.40 s
TC21_SECC_CertificateInstallation_008	PASS	6.60 s
TC21_SECC_CertificateInstallation_009	PASS	6.00 s
TC21_SECC_CertificateInstallation_010	PASS	6.00 s
TC21_SECC_CertificateInstallation_011	PASS	6.00 s

Test case	DUT (dut)	
	Verdict	Duration
TC21_SECC_CertificateInstallation_012	PASS	6.00 s
TC21_SECC_CertificateInstallation_013	PASS	6.00 s
TC21_SECC_CertificateInstallation_014	PASS	6.40 s
TC21_SECC_CertificateInstallation_015	PASS	6.60 s
TC21_SECC_CertificateInstallation_016	PASS	6.41 s
TC21_SECC_CertificateInstallation_017	PASS	6.60 s
TC21_SECC_CertificateInstallation_018	PASS	6.00 s
TC21_SECC_CertificateInstallation_019	PASS	6.40 s
TC21_SECC_CertificateInstallation_020	PASS	6.60 s
TC21_SECC_CertificateInstallation_021	PASS	6.00 s
Authorization		
TC21_SECC_Authorization_001	PASS	6.32 s
TC21_SECC_Authorization_003	PASS	7.00 s
TC21_SECC_Authorization_004	PASS	6.40 s
TC21_SECC_Authorization_005	PASS	6.00 s
TC21_SECC_Authorization_006	PASS	6.00 s
TC21_SECC_Authorization_007	PASS	6.00 s
TC21_SECC_Authorization_008	PASS	6.00 s
TC21_SECC_Authorization_009	PASS	6.00 s
TC21_SECC_Authorization_010	PASS	6.40 s
TC21_SECC_Authorization_011	PASS	6.60 s
TC21_SECC_Authorization_012	PASS	6.00 s
TC21_SECC_Authorization_013	PASS	6.00 s
TC21_SECC_Authorization_014	PASS	6.00 s
TC21_SECC_Authorization_015	PASS	6.00 s
TC21_SECC_Authorization_016	PASS	6.00 s
TC21_SECC_Authorization_017	PASS	6.00 s
TC21_SECC_Authorization_018	PASS	6.40 s
TC21_SECC_Authorization_021	PASS	6.60 s
TC21_SECC_Authorization_023	PASS	6.60 s

Test case	DUT (dut)	
	Verdict	Duration
TC21_SECC_Authorization_024	PASS	6.40 s
CertificateInstallationOrAuthorization		
TC21_SECC_CertificateInstallationOrAuthorization_001	PASS	6.00 s
TC21_SECC_CertificateInstallationOrAuthorization_002	PASS	69.89 s
ServiceDiscovery		
TC21_SECC_ServiceDiscovery_001	PASS	6.80 s
TC21_SECC_ServiceDiscovery_002	PASS	7.80 s
TC21_SECC_ServiceDiscovery_003	PASS	7.20 s
TC21_SECC_ServiceDiscovery_004	PASS	70.89 s
TC21_SECC_ServiceDiscovery_005	PASS	7.91 s
ServiceDetail		
TC21_SECC_ServiceDetail_001	PASS	6.58 s
TC21_SECC_ServiceDetail_002	PASS	7.60 s
TC21_SECC_ServiceDetail_003	PASS	7.40 s
TC21_SECC_ServiceDetail_004	PASS	7.00 s
TC21_SECC_ServiceDetail_005	PASS	70.89 s
TC21_SECC_ServiceDetail_006	PASS	7.11 s
ServiceSelection		
TC21_SECC_ServiceSelection_001	PASS	7.40 s
TC21_SECC_ServiceSelection_002	PASS	7.00 s
TC21_SECC_ServiceSelection_003	PASS	7.60 s
TC21_SECC_ServiceSelection_004	FAIL	7.40 s
TC21_SECC_ServiceSelection_006	PASS	70.89 s
TC21_SECC_ServiceSelection_007	PASS	7.10 s
ChargeParameterDiscovery		
TC21_SECC_ChargeParameterDiscovery_001	PASS	7.70 s
TC21_SECC_ChargeParameterDiscovery_002	PASS	7.60 s
TC21_SECC_ChargeParameterDiscovery_003	PASS	71.49 s
TC21_SECC_ChargeParameterDiscovery_004	PASS	7.51 s
ScheduleExchange		

Test case	DUT (dut)	
	Verdict	Duration
TC21_SECC_ScheduleExchange_002	PASS	6.99 s
TC21_SECC_ScheduleExchange_003	PASS	7.00 s
TC21_SECC_ScheduleExchange_004	PASS	7.00 s
TC21_SECC_ScheduleExchange_005	PASS	71.49 s
TC21_SECC_ScheduleExchange_006	PASS	7.51 s
TC21_SECC_ScheduleExchange_008	PASS	7.00 s
PowerDelivery		
TC21_SECC_PowerDelivery_001	PASS	11.80 s
TC21_SECC_PowerDelivery_002	PASS	12.80 s
TC21_SECC_PowerDelivery_003	PASS	12.20 s
TC21_SECC_PowerDelivery_004	PASS	12.80 s
TC21_SECC_PowerDelivery_005	PASS	12.80 s
TC21_SECC_PowerDelivery_006	PASS	13.20 s
TC21_SECC_PowerDelivery_007	FAIL	12.20 s
TC21_SECC_PowerDelivery_008	FAIL	11.99 s
TC21_SECC_PowerDelivery_009	PASS	75.89 s
TC21_SECC_PowerDelivery_010	PASS	76.80 s
TC21_SECC_PowerDelivery_011	FAIL	12.51 s
TC21_SECC_PowerDelivery_012	FAIL	12.00 s
TC21_SECC_PowerDelivery_013	FAIL	12.00 s
ChargeLoop		
TC21_SECC_ChargeLoop_001	PASS	11.92 s
TC21_SECC_ChargeLoop_002	PASS	75.89 s
SessionStop		
TC21_SECC_SessionStop_001	PASS	14.01 s
TC21_SECC_SessionStop_002	PASS	13.59 s
TC21_SECC_SessionStop_003	PASS	13.00 s
TC21_SECC_SessionStop_004	PASS	77.49 s
TC21_SECC_SessionStop_005	PASS	13.91 s
TC21_SECC_SessionStop_006	PASS	13.59 s

Test case	DUT (dut)	
	Verdict	Duration
TC21_SECC_SessionStop_007	FAIL	13.00 s

Summary matrix — PIONIX interop testing (vendor-defined)

Test case	DUT (dut)	
	Verdict	Duration
PionixInterop		
TC_SECC_CMN_VTB_PionixInterop_010	PASS	5.18 s
TC_SECC_DC_VTB_PionixInterop_001	PASS	12.61 s
TC_SECC_DC_VTB_PionixInterop_003	PASS	53.36 s
TC_SECC_DC_VTB_PionixInterop_004	PASS	4.62 s
TC_SECC_DC_VTB_PionixInterop_007	PASS	14.82 s
TC_SECC_DC_VTB_PionixInterop_009	PASS	31.52 s

Test case details — ISO 15118-3 SLAC (-5)

TC_SECC_CMN_VTB_CmSlacParm_001

TC_SECC_CMN_VTB_CmSlacParm_001.

Test objective: Test System executes GoodCase procedure, indicates the initial CP State B transition independent of duty cycle. Test System then sends a CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters and waits for the CM_SLAC_PARM.CNF message. Test System then checks that a CM_SLAC_PARM.CNF message with the current runID, EV MAC and all additional valid parameters is sent by the SUT.

DUT (dut)

PASS

4.77 s

Conformance check	Observed	Result
CM_SLAC_PARM.CNF runID = REQ runID	cnf=1122334455667788 req=1122334455667788	✓
CM_SLAC_PARM.CNF applicationType = COMMON	got 0	✓
CM_SLAC_PARM.CNF securityType = COMMON	got 0	✓
CM_SLAC_PARM.CNF M-SOUND target = broadcast	got ffffffff	✓
CM_SLAC_PARM.CNF num_sounds = expected	got 10	✓
CM_SLAC_PARM.CNF timeout = expected	got 6	✓
CM_SLAC_PARM.CNF resp_type = expected	got 1	✓
CM_SLAC_PARM.CNF forwarding_sta = EV MAC	got 02005e00cafe	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF num_sounds	10	= 10	✓
CM_SLAC_PARM.CNF timeout	6	= 6	✓
CM_SLAC_PARM.CNF resp_type	1	= 1	✓

TC_SECC_CMN_VTB_CmSlacParm_002

TC_SECC_CMN_VTB_CmSlacParm_002.

Test objective: as _001 but Test System indicates the initial CP State C transition independent of duty cycle before sending CM_SLAC_PARM.REQ, and checks the CM_SLAC_PARM.CNF with the current runID, EV MAC and all additional valid parameters is sent by the SUT. Annex C sets vc_state := C before the StateB precondition: the plug-in transition is A→C directly.

DUT (dut) **PASS** 4.00 s

Conformance check	Observed	Result
CM_SLAC_PARM.CNF runID = REQ runID	cnf=1122334455667788 req=1122334455667788	✓
CM_SLAC_PARM.CNF applicationType = COMMON	got 0	✓
CM_SLAC_PARM.CNF securityType = COMMON	got 0	✓
CM_SLAC_PARM.CNF M-SOUND target = broadcast	got ffffffff	✓
CM_SLAC_PARM.CNF num_sounds = expected	got 10	✓
CM_SLAC_PARM.CNF timeout = expected	got 6	✓
CM_SLAC_PARM.CNF resp_type = expected	got 1	✓
CM_SLAC_PARM.CNF forwarding_sta = EV MAC	got 02005e00cafe	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF num_sounds	10	= 10	✓
CM_SLAC_PARM.CNF timeout	6	= 6	✓
CM_SLAC_PARM.CNF resp_type	1	= 1	✓

TC_SECC_CMN_VTB_CmSlacParm_003

TC_SECC_CMN_VTB_CmSlacParm_003.

Test objective: as _001 but Test System indicates the initial CP State D transition independent of duty cycle before sending CM_SLAC_PARM.REQ, and checks the CM_SLAC_PARM.CNF with the current runID, EV MAC and all additional valid parameters is sent by the SUT. Annex C sets vc_state := D before the StateB precondition: the plug-in transition is A→D directly.

DUT (dut) **PASS** 4.00 s

Conformance check	Observed	Result
CM_SLAC_PARM.CNF runID = REQ runID	cnf=1122334455667788 req=1122334455667788	✓
CM_SLAC_PARM.CNF applicationType = COMMON	got 0	✓
CM_SLAC_PARM.CNF securityType = COMMON	got 0	✓
CM_SLAC_PARM.CNF M-SOUND target = broadcast	got ffffffff	✓
CM_SLAC_PARM.CNF num_sounds = expected	got 10	✓
CM_SLAC_PARM.CNF timeout = expected	got 6	✓
CM_SLAC_PARM.CNF resp_type = expected	got 1	✓
CM_SLAC_PARM.CNF forwarding_sta = EV MAC	got 02005e00cafe	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF num_sounds	10	= 10	✓
CM_SLAC_PARM.CNF timeout	6	= 6	✓
CM_SLAC_PARM.CNF resp_type	1	= 1	✓

TC_SECC_CMN_VTB_CmSlacParm_004

TC_SECC_CMN_VTB_CmSlacParm_004.

Test objective: Test System executes GoodCase procedure and indicates the initial CP State B transition. Test System then waits until the TT_EVSE_SLAC_init timer (maximum value) has expired before sending the CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters. Test System then checks that no CM_SLAC_PARM.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 54.49 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 50s	silent for 50s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

TC_SECC_CMN_VTB_CmSlacParm_005

TC_SECC_CMN_VTB_CmSlacParm_005.

Test objective: Test System executes GoodCase procedure and indicates the initial CP State B transition. Test System then waits until the TT_EVSE_SLAC_init timer (maximum value) has expired before sending the CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters. Furthermore an additional CM_SLAC_PARM.REQ message with an invalid 'applicationType' equals to 'FF'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_PARM.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 54.89 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 50s	silent for 50s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

TC_SECC_CMN_VTB_CmSlacParm_006

TC_SECC_CMN_VTB_CmSlacParm_006.

Test objective: Test System executes GoodCase procedure and indicates the initial CP State B transition. Test System then waits until the TT_EVSE_SLAC_init timer (maximum value) has expired before sending the CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters. Furthermore an additional CM_SLAC_PARM.REQ message with an invalid 'securityType' equals to 'FF'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_PARM.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 55.09 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 50s	silent for 50s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

TC_SECC_CMN_VTB_CmSlacParm_007

TC_SECC_CMN_VTB_CmSlacParm_007.

Test objective: Test System executes GoodCase procedure, indicates the initial CP State B transition, CP State A again and sends a CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters. Test System then checks that no CM_SLAC_PARM.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 21.05 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

TC_SECC_CMN_VTB_CmSlacParm_008

TC_SECC_CMN_VTB_CmSlacParm_008.

Test objective: Test System executes GoodCase procedure and stays for 'par_SECC_waitForPlugin' in CP State A (SUT goes to sleep after time period in CP State A). After 'par_SECC_waitForPlugin' Test System indicates the initial CP State B transition, sends CM_SLAC_PARM.REQ messages with a valid runID and all additional valid parameters and waits for the CM_SLAC_PARM.CNF message as long as 'par_T_conn_max_comm' is running. Test System then checks that a CM_SLAC_PARM.CNF message with the current runID, EV MAC and all additional valid parameters is sent by the SUT after wakeup by plug-in.

DUT (dut) **PASS** 9.32 s

Conformance check	Observed	Result
CM_SLAC_PARM.CNF runID = REQ runID	cnf=1122334455667788 req=1122334455667788	✓
CM_SLAC_PARM.CNF applicationType = COMMON	got 0	✓
CM_SLAC_PARM.CNF securityType = COMMON	got 0	✓
CM_SLAC_PARM.CNF M-SOUND target = broadcast	got ffffffff	✓
CM_SLAC_PARM.CNF num_sounds = expected	got 10	✓
CM_SLAC_PARM.CNF timeout = expected	got 6	✓
CM_SLAC_PARM.CNF resp_type = expected	got 1	✓
CM_SLAC_PARM.CNF forwarding_sta = EV MAC	got 02005e00cafe	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
readiness after wakeup by plug-in	452.2 ms	≤ 8000 ms (T_conn_max_comm)	✓
CM_SLAC_PARM.CNF num_sounds	10	= 10	✓
CM_SLAC_PARM.CNF timeout	6	= 6	✓
CM_SLAC_PARM.CNF resp_type	1	= 1	✓

TC_SECC_CMN_VTB_CmSlacParm_009

TC_SECC_CMN_VTB_CmSlacParm_009.

Test objective: Test System executes GoodCase procedure and stays for 'par_SECC_waitForPlugin' in CP State A (SUT goes to sleep after time period in CP State A). After 'par_SECC_waitForPlugin' Test System indicates the initial CP State B transition and waits for a 5 % duty cycle as long as 'par_T_conn_max_comm' is running. After duty cycle detection Test System sends one CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters and waits for the CM_SLAC_PARM.CNF message. Test System then checks that a CM_SLAC_PARM.CNF message with the current runID, EV MAC and all additional valid parameters is sent by the SUT after wakeup by plug-in.

DUT (dut) **PASS** 9.15 s

Conformance check	Observed	Result
5% duty cycle detected within par_T_conn_max_comm (8.0s) after wakeup by plug-in		✓
CM_SLAC_PARM.CNF runID = REQ runID	cnf=1122334455667788 req=1122334455667788	✓
CM_SLAC_PARM.CNF applicationType = COMMON	got 0	✓
CM_SLAC_PARM.CNF securityType = COMMON	got 0	✓
CM_SLAC_PARM.CNF M-SOUND target = broadcast	got ffffffff	✓
CM_SLAC_PARM.CNF num_sounds = expected	got 10	✓
CM_SLAC_PARM.CNF timeout = expected	got 6	✓
CM_SLAC_PARM.CNF resp_type = expected	got 1	✓
CM_SLAC_PARM.CNF forwarding_sta = EV MAC	got 02005e00cafe	✓

Measurement	Measured	Target / range	Result
5% duty after wakeup by plug-in	601.6 ms	≤ 8000 ms (T_conn_max_comm)	✓
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF num_sounds	10	= 10	✓
CM_SLAC_PARM.CNF timeout	6	= 6	✓
CM_SLAC_PARM.CNF resp_type	1	= 1	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_001

TC_SECC_CMN_VTB_AttenuationCharacterization_001.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then waits for the CM_ATTEN_CHAR.IND message. Test System then checks that a CM_ATTEN_CHAR.IND message with the current runID, EV MAC, 58 attenuation entries and all additional valid parameters is sent by the SUT.

DUT (dut) **PASS** 6.03 s

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND num_sounds (template wildcard)	10	-	info
CM_ATTEN_CHAR.IND num_groups	58	= 58	✓
CM_ATTEN_CHAR.IND mean attenuation	25.0 dB	-	info

TC_SECC_CMN_VTB_AttenuationCharacterization_002

TC_SECC_CMN_VTB_AttenuationCharacterization_002.

Test objective: Test System executes GoodCase procedure and sends a new CM_SLAC_PARM.REQ message with a new runID and all additional valid parameters after receiving a valid CM_ATTEN_CHAR.IND message with the current runID, 58 attenuation entries, EV MAC and all additional valid parameters. Test System then waits for the confirmation of a new SLAC process, receiving a CM_SLAC_PARM.CNF message because it shall be considered as a new retry by the EV. Test System then checks that a CM_SLAC_PARM.CNF message with current runID, EV MAC and all additional valid parameters is sent by the SUT.

f..._002 sends NO CM_ATTEN_CHAR.RSP: on IND receipt it immediately regenerates the runID and sends the new CM_SLAC_PARM.REQ -- the restart from the awaiting-RSP state ([V2G3-A09-16]) is what is under test.

DUT (dut)

PASS

5.80 s

Conformance check	Observed	Result
SUT sends CM_SLAC_PARM.CNF for the new (retry) runID		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_PARM.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF (new runID) response time	0.4 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_003

TC_SECC_CMN_VTB_AttenuationCharacterization_003.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 9 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then waits for the CM_ATTEN_CHAR.IND message. Test System then checks that a CM_ATTEN_CHAR.IND message with the current runID, EV MAC, 58 attenuation entries and all additional valid parameters is sent by the SUT if the anticipated number of CM_ATTEN_PROFILE.IND messages is not achieved (n := 9 soundings).

DUT (dut)

PASS

6.03 s

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding (9 of 10)	645.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND num_sounds (template wildcard)	9	-	info

TC_SECC_CMN_VTB_AttenuationCharacterization_004

TC_SECC_CMN_VTB_AttenuationCharacterization_004.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND and 10 CM_MNBC_SOUND.IND messages (current runID, decrementing counter) so the SUT measures the attenuation values, then counts the number of CM_ATTEN_CHAR.IND repetitions (current runID, EV MAC, 58 attenuation entries) WITHOUT sending a CM_ATTEN_CHAR.RSP until the TT_match_response timer has expired. Test System checks that the CM_ATTEN_CHAR.IND retransmission is limited to 2 retries (C_EV_match_retry) by the SUT. After the last retry window has expired, a valid CM_ATTEN_CHAR.RSP and a valid CM_SLAC_MATCH.REQ are sent: the matching process is FAILED, so a CM_SLAC_MATCH.CNF must NOT be sent.

DUT (dut) **PASS** 6.56 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_005

TC_SECC_CMN_VTB_AttenuationCharacterization_005.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'applicationType' equals to 'FF'H in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_006

TC_SECC_CMN_VTB_AttenuationCharacterization_006.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'securityType' equals to 'FF'H in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	2.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_007

TC_SECC_CMN_VTB_AttenuationCharacterization_007.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'sourceAddress' equals to '000000000000'H in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_008

TC_SECC_CMN_VTB_AttenuationCharacterization_008.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'runID' in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) **PASS** 5.99 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_009

TC_SECC_CMN_VTB_AttenuationCharacterization_009.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'sourceID' equals to '00000000000000000000000000000001'H in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_010

TC_SECC_CMN_VTB_AttenuationCharacterization_010.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'respID' equals to '00000000000000000000000000000001'H in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)	got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_011

TC_SECC_CMN_VTB_AttenuationCharacterization_011.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then counts the number of CM_ATTEN_CHAR.IND repetitions including the current runID, EV MAC, 58 attenuation entries and all additional valid parameters after sending an invalid 'result' equals to 'FF'H in CM_ATTEN_CHAR.RSP after each CM_ATTEN_CHAR.IND message. Test System then checks the repetition of CM_ATTEN_CHAR.IND messages and whether it is limited to 2 retries by the SUT.

DUT (dut) PASS 6.00 s			
Conformance check		Observed	Result
CM_ATTEN_CHAR.IND retransmission limited to C_EV_match_retry (2)		got 2 of 2 retransmissions	✓
SUT sends no unexpected SLAC frame for 0.45s		silent for 0.45s	✓
Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND retransmission count	2	= 2	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_012

TC_SECC_CMN_VTB_AttenuationCharacterization_012.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters after the TT_match_sequence timer has expired. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

f_..._006 waits exactly tc_TT_match_sequence (par_TT_match_sequence = 400 ms) before the first CM_START_ATTEN_CHAR.IND -- no extra margin.

DUT (dut) **PASS** 5.79 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.804982s	silent for 0.804982s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_013

TC_SECC_CMN_VTB_AttenuationCharacterization_013.

Test objective: Test System executes GoodCase procedure, sends an invalid 'applicationType' equals to 'FF'H in the 3 CM_START_ATTEN_CHAR.IND messages and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameter. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 5.60 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.805154s	silent for 0.805154s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_014

TC_SECC_CMN_VTB_AttenuationCharacterization_014.

Test objective: Test System executes GoodCase procedure, sends an invalid 'securityType' equals to 'FF'H in the 3 CM_START_ATTEN_CHAR.IND messages and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameter. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.805147s	silent for 0.805147s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_015

TC_SECC_CMN_VTB_AttenuationCharacterization_015.

Test objective: Test System executes GoodCase procedure, sends an invalid 'numSounds' equals to '00'H in the 3 CM_START_ATTEN_CHAR.IND messages and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameter. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.804669s	silent for 0.804669s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_016

TC_SECC_CMN_VTB_AttenuationCharacterization_016.

Test objective: Test System executes GoodCase procedure, sends an invalid 'timeOut' equals to '00'H in the 3 CM_START_ATTEN_CHAR.IND messages and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameter. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.804887s	silent for 0.804887s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_017

TC_SECC_CMN_VTB_AttenuationCharacterization_017.

Test objective: Test System executes GoodCase procedure, sends an invalid 'respType' equals to '00'H in the 3 CM_START_ATTEN_CHAR.IND messages and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameter. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.805184s	silent for 0.805184s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_018

TC_SECC_CMN_VTB_AttenuationCharacterization_018.

Test objective: Test System executes GoodCase procedure, sends an invalid 'runID' in the 3 CM_START_ATTEN_CHAR.IND messages and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.804634s	silent for 0.804634s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_019

TC_SECC_CMN_VTB_AttenuationCharacterization_019.

Test objective: Test System executes GoodCase procedure, indicates CP State A and sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters. Test System then checks that no CM_ATTEN_CHAR.IND message is sent by the SUT until the TT_EV_atten_results timer has expired.

DUT (dut) **PASS** 21.02 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.805299s	silent for 0.805299s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

TC_SECC_CMN_VTB_AttenuationCharacterization_020

TC_SECC_CMN_VTB_AttenuationCharacterization_020.

Test objective: Test System executes GoodCase procedure, sends 3 CM_START_ATTEN_CHAR.IND messages with the current runID and all additional valid parameters and 10 CM_MNBC_SOUND.IND messages with the current runID, a decrementing counter and all additional valid parameters, so that the SUT can measure the individual attenuation values. Test System then waits for the CM_ATTEN_CHAR.IND message. Test System then checks that a CM_ATTEN_CHAR.IND message with the current runID, EV MAC, 58 attenuation entries and all additional valid parameters is sent by the SUT. Furthermore Test System executes a plug-out, injects an 10 dB attenuator on the control pilot and repeats the SLAC attenuation process by initiating a plug-in again. Test System then checks that SUT has sent the measured attenuation values by comparing both processes. (The mean of the attenuation values of test run 1 should be 'par_SECC_attenuationDeviation' smaller than the mean of the attenuation values of test run 2).

Verdict per f_SECC_CMN_compareAttenuationValues_001: FAIL iff $(\text{mean2} - \text{mean1}) < \text{par_SECC_attenuationDeviation}$, with the means computed as INTEGER means (f_SECC_CMN_calculateMeanOfAttenuationValues_001: $\text{sum} / 58$, integer division). ONE-SIDED -- the standard has no upper bound. par_SECC_attenuationDeviation is a declared PIXIT (pics.SECC_ATTENUATION_DEVIATION_DB = 5).

SIL-only: the "10 dB attenuator on the control pilot" is emulated by raising the cb_tandem_sim virtual-modem attenuation base from 25 dB (run 1) to 35 dB (run 2) via set_sim_attenuation() -- equivalent in kind to the ATS's own TX-power emulation (f_SECC_CMN_setTXPower(10) in f_SECC_CMN_Reset_001); on a HIL rig a real RF attenuator would be inserted between the two runs instead.

DUT (dut) **INCONCLUSIVE** precondition not established 19.04 s

FAILURE REASON

harness/test_ev.py:167

harness.verdict.PreconditionInconclusive: INCONCLUSIVE (attenuation control): the virtual PLC attenuator is SIL-only for now; AttenChar_020's par_SECC_attenuationDeviation objective cannot be met with a fixed physical PLC path as of now and needs HW support to insert a 10dB attenuator in the CP signal path.

Failure detail (excerpt):

E harness.verdict.PreconditionInconclusive: INCONCLUSIVE (attenuation control): the virtual PLC attenuator is SIL-only for now; AttenChar_020's par_SECC_attenuationDeviation objective cannot be met with a fixed physical PLC path as of now and needs HW support to insert a 10dB attenuator in the CP signal path.

During handling of the above exception, another exception occurred:

E harness.verdict.PreconditionInconclusive: INCONCLUSIVE (attenuation control): the virtual PLC attenuator is SIL-only for now; AttenChar_020's par_SECC_attenuationDeviation objective cannot be met with a fixed physical PLC path as of now and needs HW support to insert a 10dB attenuator in the CP signal path.

TC_SECC_CMN_VTB_CmValidate_010

TC_SECC_CMN_VTB_CmValidate_010.

Test objective: Test System executes GoodCase procedure, sends the CM_VALIDATE.REQ message (step 1) with 'pilotTimer' equals to '00'H and all additional valid parameters and waits for the CM_VALIDATE.CNF message (step 1) if the SUT is not able to perform any BCB-Toggle. Test System then checks that a CM_VALIDATE.CNF message with 'result' equals to '03'H and all additional valid parameters is sent by the SUT.

The only CmValidate TC selected for PIXIT_SECC_CMN_CmValidate := none_: a SUT that cannot BCB-toggle must still answer every CM_VALIDATE.REQ with CM_VALIDATE.CNF result '03'H (failure, [V2G3-A09-80]). Deselected (N/A) on a SUT declaring cmValidate.

DUT (dut) **FAIL** 4.40 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: CM_VALIDATE.CNF step 1 result = 0x03 (ISO 15118-5) – got 0x01

Conformance check	Observed	Result
CM_VALIDATE.CNF step 1 signalType = 0x00 (md_CMN_CMN_CmValidateCnf_001)	got 0x00	✓
CM_VALIDATE.CNF step 1 toggleNum = 0x00 (md_CMN_CMN_CmValidateCnf_001)	got 0x00	✓
CM_VALIDATE.CNF step 1 result = 0x03 (ISO 15118-5)	got 0x01	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_VALIDATE.CNF (step 1) response time	0.3 ms	≤ 200 ms (TT_match_response)	✓
CM_VALIDATE.CNF step 1 result	1	= 3	✗

Failure detail (excerpt):

E AssertionError: CM_VALIDATE.CNF step 1 result = 0x03 (ISO 15118-5) – got 0x01

TC_SECC_CMN_VTB_CmSlacMatch_001

TC_SECC_CMN_VTB_CmSlacMatch_001.

Test objective: Test System executes GoodCase procedure without SLAC validation process, sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters and waits for CM_SLAC_MATCH.CNF message. Test System then checks that a CM_SLAC_MATCH.CNF message with the current runID, valid NID and NMK, EV MAC, EVSE MAC and all additional valid parameter is sent by the SUT.

DUT (dut) **PASS** 5.14 s

Conformance check	Observed	Result
CM_SLAC_MATCH.CNF matches the md_CMN_CMN_CmSlacMatchCnf_001 template (runID, EV MAC, EVSE MAC)	runID=0f1e2d3c4b5a6978 evMAC=02005e00cafe evseMAC=3e4bc4d81845	✓
CM_SLAC_MATCH.CNF NMK length = expected	got 16	✓
CM_SLAC_MATCH.CNF NMK is non-zero		✓
CM_SLAC_MATCH.CNF NID length = expected	got 7	✓
CM_SLAC_MATCH.CNF NID consistent with NMK (SHA-256 ×5)	nid=f21063c13de706 nmk=5a574a5733344742303451344335384a	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_MATCH.CNF NMK length	16	= 16	✓
CM_SLAC_MATCH.CNF NID length	7	= 7	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_CmSlacMatch_003

TC_SECC_CMN_VTB_CmSlacMatch_003.

Test objective: Test System executes GoodCase procedure without SLAC validation process, sends a CM_SLAC_MATCH.REQ (current runID, EV MAC, EVSE MAC) and ignores the received CM_SLAC_MATCH.CNF. After 'TT_match_response' timeout, Test System sends another CM_SLAC_MATCH.REQ and waits for the repetition of a valid CM_SLAC_MATCH.CNF. Test System then checks that a CM_SLAC_MATCH.CNF with the current runID, valid NID and NMK, EV MAC, EVSE MAC and all additional valid parameters is retransmitted by the SUT.

DUT (dut) **PASS** 5.20 s

Conformance check	Observed	Result
first CM_SLAC_MATCH.CNF matches the md_CMN_CMN_CmSlacMatchCnf_001 template	runID=0f1e2d3c4b5a6978 evMAC=02005e00cafe evseMAC=3e4bc4d81845	✓
CM_SLAC_MATCH.CNF matches the md_CMN_CMN_CmSlacMatchCnf_001 template (runID, EV MAC, EVSE MAC)	runID=0f1e2d3c4b5a6978 evMAC=02005e00cafe evseMAC=3e4bc4d81845	✓
CM_SLAC_MATCH.CNF NMK length = expected	got 16	✓
CM_SLAC_MATCH.CNF NMK is non-zero		✓
CM_SLAC_MATCH.CNF NID length = expected	got 7	✓
CM_SLAC_MATCH.CNF NID consistent with NMK (SHA-256 x5)	nid=dc19d166a17a0a nmk=44415a53314a524734374f32314d3335	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_MATCH.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_MATCH.CNF NMK length	16	= 16	✓
CM_SLAC_MATCH.CNF NID length	7	= 7	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_CmSlacMatch_005

TC_SECC_CMN_VTB_CmSlacMatch_005.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.41 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_007

TC_SECC_CMN_VTB_CmSlacMatch_007.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'applicationType' equals to 'FF'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_009

TC_SECC_CMN_VTB_CmSlacMatch_009.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'securityType' equals to 'FF'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_011

TC_SECC_CMN_VTB_CmSlacMatch_011.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'mfvLength' equals to '0000'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_013

TC_SECC_CMN_VTB_CmSlacMatch_013.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'evID' equals to '00000000000000000000000000000001'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_015

TC_SECC_CMN_VTB_CmSlacMatch_015.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'evMac' equals to '000000000000'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_017

TC_SECC_CMN_VTB_CmSlacMatch_017.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'evseID' equals to '00000000000000000000000000000001'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.00 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_019

TC_SECC_CMN_VTB_CmSlacMatch_019.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'evseMac' equals to '000000000000'H was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.20 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_021

TC_SECC_CMN_VTB_CmSlacMatch_021.

Test objective: Test System executes GoodCase procedure without SLAC validation process and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters after TT_EVSE_match_session timer has expired. Furthermore an additional CM_SLAC_MATCH.REQ message with an invalid 'runID' was sent before timeout was triggered. Test System then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 15.80 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 10.25s	silent for 10.25s	✓
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_CmSlacMatch_023

TC_SECC_CMN_VTB_CmSlacMatch_023.

Test objective: Test System executes GoodCase procedure without SLAC validation process, indicates CP State A and sends a CM_SLAC_MATCH.REQ message with the current runID, EV MAC, EVSE MAC and all additional valid parameters. Test system then checks that no CM_SLAC_MATCH.CNF message is sent by the SUT until the TT_match_response timer has expired.

DUT (dut) **PASS** 20.20 s

Conformance check	Observed	Result
SUT sends no unexpected SLAC frame for 0.45s	silent for 0.45s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓

TC_SECC_CMN_VTB_PLCLinkStatus_001

TC_SECC_CMN_VTB_PLCLinkStatus_001.

Test objective: Test System executes GoodCase procedure, indicates the key at the local PLC node after receipt of a valid CM_SLAC_MATCH.CNF message and then waits for AVLN establishment by exchange of communication with the internal PLC Node. Test System then checks that the data link connection is established within 'TT_match_join'.

DUT (dut) **PASS** 5.06 s

Conformance check	Observed	Result
data link established within TT_match_join (12.0s)	D-LINK ready 0.001s after match	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
D-LINK ready after match	0.8 ms	≤ 12000 ms (TT_match_join)	✓

TC_SECC_CMN_VTB_PLCLinkStatus_002

TC_SECC_CMN_VTB_PLCLinkStatus_002.

Test objective: Test System executes GoodCase procedure and establishes a new AVLN. Test System then checks that SUT leaves the logical network within 'TP_match_leave' if CP State A was detected before.

DUT (dut) **PASS** 20.12 s

Conformance check	Observed	Result
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.101s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
left logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_CMN_VTB_PLCLinkStatus_003

TC_SECC_CMN_VTB_PLCLinkStatus_003.

Test objective: Test System executes GoodCase procedure, establishes a new AVLN and sends a CM_SLAC_PARM.REQ message with a valid runID and all additional valid parameters. Test System then checks that no CM_SLAC_PARM.CNF message is sent by the SUT until the TT_match_response timer has expired if the SUT is in state 'Matched'.

DUT (dut) PASS 5.28 s			
Conformance check		Observed	Result
SUT sends no unexpected SLAC frame for 0.45s		silent for 0.45s	✓
Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_PLCLinkStatus_004

TC_SECC_CMN_VTB_PLCLinkStatus_004.

Test objective: Test System starts GoodCase procedure five times in parallel and starts five independent SLAC processes. Test System then checks that the SUT will respond to each EVCC instance with a CM_ATTEN_CHAR.IND message with the current runID, EV MAC and all additional valid parameters. Furthermore a successful link establishment with the first instance will be checked.

DUT (dut) **PASS** 4.61 s

Conformance check	Observed	Result
SUT answers each parallel SLAC process with CM_SLAC_PARM.CNF	session run_id=a001020304050607: CNF received	✓
SUT answers each parallel SLAC process with CM_SLAC_PARM.CNF	session run_id=a101020304050607: CNF received	✓
SUT answers each parallel SLAC process with CM_SLAC_PARM.CNF	session run_id=a201020304050607: CNF received	✓
SUT answers each parallel SLAC process with CM_SLAC_PARM.CNF	session run_id=a301020304050607: CNF received	✓
SUT answers each parallel SLAC process with CM_SLAC_PARM.CNF	session run_id=a401020304050607: CNF received	✓
SUT responds to each EVCC instance with CM_ATTEN_CHAR.IND within TT_EV_atten_results	session run_id=a001020304050607 IND 0.417s after first START	✓
SUT responds to each EVCC instance with CM_ATTEN_CHAR.IND within TT_EV_atten_results	session run_id=a101020304050607 IND 0.417s after first START	✓
SUT responds to each EVCC instance with CM_ATTEN_CHAR.IND within TT_EV_atten_results	session run_id=a201020304050607 IND 0.417s after first START	✓
SUT responds to each EVCC instance with CM_ATTEN_CHAR.IND within TT_EV_atten_results	session run_id=a301020304050607 IND 0.417s after first START	✓
SUT responds to each EVCC instance with CM_ATTEN_CHAR.IND within TT_EV_atten_results	session run_id=a401020304050607 IND 0.417s after first START	✓
all five parallel SLAC processes answered with CM_ATTEN_CHAR.IND	5/5 answered	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
parallel SLAC sessions answered (CM_ATTEN_CHAR.IND)	5	= 5	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_CMN_VTB_PLCLinkStatus_005

TC_SECC_CMN_VTB_PLCLinkStatus_005.

Test objective: Test System executes GoodCase procedure and establishes a new AVLN. Afterwards Test System initiates a connection loss by setting a new key at the local node. Test System then checks that the SUT leaves the logical network (setting previous key again on Test System side).

DUT (dut) **FAIL** 6.99 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: SUT has left the current logical network (CM_NW_STATS empty) – still in network: CmNwStatsCnf(num_stas=1, stations=[00b052000001(tx=10,rx=10)])

Conformance check	Observed	Result
SUT leaves the logical network within TP_match_leave (1.25s) on connection loss	left after 0.000s	✓
SUT sends no SLAC frame during par_TP_match_leave (leaving the network)	silent for 1s	✓
SUT has left the current logical network (CM_NW_STATS empty)	still in network: CmNwStatsCnf(num_stas=1, stations=[00b052000001(tx=10,rx=10)])	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CM_SET_KEY.CNF response time	0.2 ms	-	info
left logical network on connection loss	0.0 s	≤ 1.25 s	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

E AssertionError: SUT has left the current logical network (CM_NW_STATS empty) – still in network: CmNwStatsCnf(num_stas=1, stations=[00b052000001(tx=10,rx=10)])

TC_SECC_DC_VTB_PLCLinkStatus_004

TC_SECC_DC_VTB_PLCLinkStatus_004.

Test objective: Test System executes GoodCase procedure, indicates the key at the local PLC node and then checks that the data link connection is established within 'TT_match_join'. Afterwards Test System initiates a connection loss by setting a new key at the local node. Test System then checks that the SUT performs a CP State X2 to X1 to E/F transition. Furthermore Test System checks that the SUT applies CP State E or F for T_step_EF and will switch to CP State X1 or X2 afterwards.

Pure connection-loss CP E/F cycle (f_SECC_CMN_TB_VTB_PLCLinkStatus_007, DC duty ranges): no V2G layer or +12 V/BCB instrumentation needed.

DUT (dut)

FAIL

15.01 s

FAILURE REASON

tests/test_secc_plc_link_status.py:205

TimeoutError: no matching CP duty period within 10.0s (periods: [])

Conformance check	Observed	Result
PLC link terminated within TP_match_leave (1.25s) on connection loss	left after 0.000s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CM_SET_KEY.CNF response time	0.2 ms	-	info
left logical network on connection loss	0.0 s	≤ 1.25 s	✓

Failure detail (excerpt):

E TimeoutError: no matching CP duty period within 10.0s (periods: [])

TC_SECC_DC_VTB_PLCLinkStatus_005

TC_SECC_DC_VTB_PLCLinkStatus_005.

Test objective: Test System executes GoodCase procedure and initiates a terminated V2G communication session by sending a SessionStopReq message with the current SessionID, ChargingSession 'Terminate' and all additional mandatory parameters and waits for a SessionStopRes message with the current SessionID and all additional mandatory parameters. Furthermore Test System checks if the SUT terminates the TCP connection after successful charging process. Test System then checks that the SUT leaves the logical network after 'TP_match_leave' by using the CM_NW_STATS message sequence.

DUT (dut) **PASS** 18.84 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends SessionStopRes(OK) for the terminating SessionStop	got 'SessionStopRes' / 'OK'	✓
SessionStopRes carries the current SessionID	got 'a625eab2684c99e2', expected 'a625eab2684c99e2'	✓
SUT sends no SLAC frame during par_TP_match_leave (leaving the network)	silent for 1s	✓
SUT has left the current logical network (CM_NW_STATS empty)	no stations	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionStopRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	3999.5 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓
SUT node absent from tester-node AVLN after Terminate (CM_NW_STATS after TP_match_leave)	0 stations	= 0 stations	✓

Test case details — ISO 15118-2 message layer (-4)

TC_SECC_CMN_VTB_SupportedAppProtocol_001

TC_SECC_CMN_VTB_SupportedAppProtocol_001.

Test objective: GoodCase; Test System sends SupportedAppProtocolReq with a valid AppProtocol list including the ISO namespace over TLS and checks the SUT replies SupportedAppProtocolRes with ResponseCode OK_SuccessfulNegotiation or OK_SuccessfulNegotiationWithMinorDeviation. This variant negotiates over TLS (PIXIT_SECC_CMN_TLS := true); the TLS-off twin is _004.

Runs against the PnC SUT config (TLS on): SDP-TLS + TLS 1.2 connect, then the SupportedAppProtocol handshake over the TLS channel.

DUT (dut)

PASS

 5.70 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode is an OK_* negotiation code (over TLS)	got 'OK_SuccessfulNegotiation'	✓
supportedAppProtocolRes carries the negotiated SchemaID (TLS)	got 1	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
Negotiated SchemaID (TLS)	1	-	info

TC_SECC_CMN_VTB_SupportedAppProtocol_002

TC_SECC_CMN_VTB_SupportedAppProtocol_002.

Test objective: GoodCase; Test System sends SupportedAppProtocolReq with an invalid ISO namespace and checks the SUT replies Failed_NoNegotiation and terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout (5 s).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode = Failed_NoNegotiation for an invalid ISO namespace	got 'Failed_NoNegotiation'	✓
SUT closes the TCP connection after the Failed_NoNegotiation response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_SupportedAppProtocol_003

TC_SECC_CMN_VTB_SupportedAppProtocol_003.

Test objective: GoodCase; after SDP + TCP the Test System stays silent until V2G_Sequence_Timeout expires (sends no SupportedAppProtocolReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST (waits the ~60 s sequence timeout).

DUT (dut) **PASS** 23.82 s

Conformance check	Observed	Result
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s)	closed 18.1s after TCP connect	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/timeout	18078.7 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_SupportedAppProtocol_004

TC_SECC_CMN_VTB_SupportedAppProtocol_004.

Test objective: GoodCase (eIM / no-TLS); Test System sends a valid SupportedAppProtocolReq including the ISO namespace urn:iso:15118:2:2013:MsgDef and all mandatory parameters, and checks the SUT replies SupportedAppProtocolRes with ResponseCode OK_SuccessfulNegotiation or OK_SuccessfulNegotiationWithMinorDeviation and a valid SchemalD.

DUT (dut) **PASS** 6.17 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode is an OK_* negotiation code	got 'OK_SuccessfulNegotiation'	✓
supportedAppProtocolRes carries the negotiated SchemalD	got 1	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
Negotiated SchemalD	1	-	info

TC_SECC_CMN_VTB_SupportedAppProtocol_005

TC_SECC_CMN_VTB_SupportedAppProtocol_005.

Test objective: GoodCase; Test System lets V2G_SECC_CommunicationSetup_Timeout (20 s) expire on the SUT side after the SDP response WITHOUT establishing the TCP connection, then attempts a TCP handshake and checks the SUT no longer accepts it / does not respond (and emits no further SDP response). LONG TEST.

DUT (dut) **PASS** 30.23 s

Conformance check	Observed	Result
SUT stops waiting after V2G_SECC_CommunicationSetup_Timeout (rejects the late TCP handshake / SupportedAppProtocol)		✓
SUT emits no further SDP response after V2G_SECC_CommunicationSetup_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_SupportedAppProtocol_006

TC_SECC_CMN_VTB_SupportedAppProtocol_006.

Test objective: GoodCase; Test System sends valid AppProtocols where VersionNumberMinor does not match the SUT's, and checks the SUT replies exactly OK_SuccessfulNegotiationWithMinorDeviation.

DUT (dut) **PASS** 5.77 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
SUT does not return plain OK_SuccessfulNegotiation for a mismatched VersionNumberMinor		✓
ResponseCode = OK_SuccessfulNegotiationWithMinorDeviation	got 'OK_SuccessfulNegotiationWithMinorDeviation'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_SessionSetup_001

TC_SECC_CMN_VTB_SessionSetup_001.

Test objective: GoodCase; Test System sends SessionSetupReq with SessionID 0, a valid EvccID and all mandatory parameters, and checks the SUT replies SessionSetupRes with a NEW non-zero SessionID, ResponseCode OK_NewSessionEstablished and a valid Evseld.

DUT (dut) **PASS** 5.91 s

Conformance check	Observed	Result
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
ResponseCode = OK_NewSessionEstablished	got 'OK_NewSessionEstablished'	✓
SessionSetupRes carries a new non-zero SessionID	got 008e8649a044e15b	✓
SessionSetupRes carries a valid EVSEID	got 'DE*PNX*E12345*1'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_SessionSetup_002

TC_SECC_CMN_VTB_SessionSetup_002.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq instead of SessionSetupReq (sequence error) and checks the SUT replies ServiceDiscoveryRes with the current SessionID, ResponseCode FAILED_SequenceError and all mandatory parameters, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout (5 s).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_SessionSetup_003

TC_SECC_CMN_VTB_SessionSetup_003.

Test objective: GoodCase; after SupportedAppProtocolRes the Test System stays silent until V2G_Sequence_Timeout expires (sends no SessionSetupReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST (waits the ~60 s sequence timeout).

DUT (dut) **PASS** 23.02 s

Conformance check	Observed	Result
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s)	closed 17.1s after SupportedAppProtocolRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/timeout	17093.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_SessionSetup_004

TC_SECC_CMN_VTB_SessionSetup_004.

Test objective: GoodCase; after SupportedAppProtocolRes the Test System lets V2G_SECC_CommunicationSetup_Timeout (20 s) expire (sends no SessionSetupReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the comm-setup timeout. Distinguishes the comm-setup timeout from the sequence timeout of _003. LONG TEST.

DUT (dut) **PASS** 23.60 s

Conformance check	Observed	Result
SUT closes the TCP connection within V2G_SECC_CommunicationSetup_Timeout+termination (26.0s)	closed after 17.1s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/timeout	17093.8 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_ServiceDiscovery_001

TC_SECC_CMN_VTB_ServiceDiscovery_001.

Test objective: GoodCase; Test System sends ServiceDiscoveryReq with the current SessionID and all mandatory parameters, and checks the SUT replies ServiceDiscoveryRes with the current SessionID, ResponseCode OK, a PaymentOptionList, a valid SupportedEnergyTransferMode and all mandatory parameters.

DUT (dut) **PASS** 6.30 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
PaymentOptionList offers at least one PaymentOption	got ['ExternalPayment']	✓
ChargeService advertises a SupportedEnergyTransferMode	got ['DC_extended']	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscovery PaymentOptionList entries	1	≥ 1	✓

TC_SECC_CMN_VTB_ServiceDiscovery_002

TC_SECC_CMN_VTB_ServiceDiscovery_002.

Test objective: GoodCase; Test System sends a valid AuthorizationReq instead of ServiceDiscoveryReq (sequence error) and checks the SUT replies AuthorizationRes with the current SessionID, ResponseCode FAILED_SequenceError and all mandatory parameters, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout (5 s).

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
AuthorizationRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_ServiceDiscovery_003

TC_SECC_CMN_VTB_ServiceDiscovery_003.

Test objective: GoodCase; Test System sends ServiceDiscoveryReq with an invalid SessionID and all mandatory parameters, and checks the SUT replies ServiceDiscoveryRes with a valid SessionID, ResponseCode FAILED_UnknownSession and all mandatory parameters, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout (5 s).

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
SUT does not answer OK to an unknown SessionID	got 'FAILED_UnknownSession'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_ServiceDiscovery_004

TC_SECC_CMN_VTB_ServiceDiscovery_004.

Test objective: GoodCase; after SessionSetupRes (new SessionID, OK_NewSessionEstablished) the Test System stays silent until V2G_Sequence_Timeout expires (sends no ServiceDiscoveryReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST (waits the ~60 s sequence timeout).

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s)	closed 64.0s after SessionSetupRes	✓
SUT does not close before V2G_Sequence_Timeout expires (>= 55s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/timeout	64030.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_PaymentServiceSelection_001

TC_SECC_CMN_VTB_PaymentServiceSelection_001.

Test objective: GoodCase; Test System sends PaymentServiceSelectionReq with the current SessionID, a SelectedPaymentOption, a valid ServiceID and all mandatory parameters, and checks the SUT replies PaymentServiceSelectionRes with the current SessionID, ResponseCode OK and all mandatory parameters.

DUT (dut) **PASS** 5.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentServiceSelectionRes message	got 'PaymentServiceSelectionRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_PaymentServiceSelection_003

TC_SECC_CMN_VTB_PaymentServiceSelection_003.

Test objective: as _002 but SelectedPaymentOption Contract → OK; PnC.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentServiceSelectionRes message	got 'PaymentServiceSelectionRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_PaymentServiceSelection_004

TC_SECC_CMN_VTB_PaymentServiceSelection_004.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq instead of PaymentServiceSelectionReq (sequence error) and checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentServiceSelection_005

TC_SECC_CMN_VTB_PaymentServiceSelection_005.

Test objective: GoodCase; Test System sends PaymentServiceSelectionReq with an invalid SessionID and checks the SUT replies with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentServiceSelection_006

TC_SECC_CMN_VTB_PaymentServiceSelection_006.

Test objective: GoodCase; Test System sends PaymentServiceSelectionReq with the current SessionID, a SelectedPaymentOption and an invalid (unoffered) ServiceID, and checks the SUT replies with the current SessionID, FAILED_ServiceSelectionInvalid, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.01 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_ServiceSelectionInvalid	got 'FAILED_ServiceSelectionInvalid'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentServiceSelection_007

TC_SECC_CMN_VTB_PaymentServiceSelection_007.

Test objective: GoodCase; Test System sends PaymentServiceSelectionReq with the current SessionID and all mandatory parameters but WITHOUT selecting the charge service (no ServiceID equal to 1), and checks the SUT replies with the current SessionID, FAILED_NoChargeServiceSelected, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.39 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_NoChargeServiceSelected	got 'FAILED_NoChargeServiceSelected'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.4 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentServiceSelection_008

TC_SECC_CMN_VTB_PaymentServiceSelection_008.

Test objective: GoodCase; after a ServiceDetailRes (OK) the Test System stays silent until V2G_Sequence_Timeout expires → SUT terminates the session (TCP close). Requires the ServiceDetail (VAS) state.

DUT (dut) **PASS** 70.69 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT answers the ServiceDetail precondition with ServiceDetailRes(OK)	got name='ServiceDetailRes', code='OK'	✓
SUT closes the TCP connection within 70s of silence	closed after 64.0s	✓
SUT does not close before V2G_Sequence_Timeout expires (>= 55s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDetailRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/timeout	64025.9 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_PaymentServiceSelection_010

TC_SECC_CMN_VTB_PaymentServiceSelection_010.

Test objective: mirror of _009; Test System selects externalPayment while the SUT is configured for contract/PnC. Requires the SUT configured for contract/PnC.

DUT (dut) **PASS** 5.91 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentServiceSelectionRes message	got 'PaymentServiceSelectionRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_PaymentDetails_001

TC_SECC_CMN_VTB_PaymentDetails_001.

Test objective: GoodCase; Test System sends PaymentDetailsReq with the current SessionID, a valid EMAID and contract certificate chain, and checks the SUT replies PaymentDetailsRes with the current SessionID, OK and a valid GenChallenge. PnC.

DUT (dut) **PASS** 6.39 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentDetailsRes message	got 'PaymentDetailsRes'	✓
ResponseCode = OK	got 'OK'	✓
GenChallenge is 16 bytes	got 16 bytes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentDetails GenChallenge length	16 bytes	= 16 bytes	✓

TC_SECC_CMN_VTB_PaymentDetails_002

TC_SECC_CMN_VTB_PaymentDetails_002.

Test objective: as _001 but after a certificate installation provisioning. PnC.

DUT (dut) **PASS** 6.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentDetailsRes message	got 'PaymentDetailsRes'	✓
ResponseCode = OK	got 'OK'	✓
GenChallenge is 16 bytes	got 16 bytes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateInstallationRes response time	105.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentDetails GenChallenge length (post-install)	16 bytes	= 16 bytes	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:37:03.326	CS & rarr; CSMS	StatusNotification	{ "connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:37:03.325Z" }

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:37:03.327	CSMS → CS	StatusNotification (response)	{}
06:37:05.709	CS → CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<1044 base64 chars>", "iso15118SchemaVersion": "urn:iso: 15118:2:2013:MsgDef"}
06:37:05.716	CSMS → CS	Get15118EVCertificate (response)	{"exiResponse": "<5568 base64 chars>", "status": "Accepted"}

TC_SECC_CMN_VTB_PaymentDetails_003

TC_SECC_CMN_VTB_PaymentDetails_003.

Test objective: as _001 but after a certificate update provisioning. PnC.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentDetailsRes message	got 'PaymentDetailsRes'	✓
ResponseCode = OK	got 'OK'	✓
GenChallenge is 16 bytes	got 16 bytes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentDetails GenChallenge length (post-update)	16 bytes	= 16 bytes	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:37:10.277	CS → CSMS	StatusNotification	{ "connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:37:10.276Z" }

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:37:10.278	CSMS → CS	StatusNotification (response)	{}
06:37:12.711	CS → CSMS	Get15118EVCertificate	{"action": "Update", "exiRequest": "<2916 base64 chars>", "iso15118SchemaVersion": "urn:iso: 15118:2:2013:MsgDef"}
06:37:12.719	CSMS → CS	Get15118EVCertificate (response)	{"exiResponse": "<5568 base64 chars>", "status": "Accepted"}

TC_SECC_CMN_VTB_PaymentDetails_004

TC_SECC_CMN_VTB_PaymentDetails_004.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq instead of PaymentDetailsReq → ServiceDiscoveryRes, FAILED_SequenceError, TCP close. PnC (reachable only via the contract PaymentServiceSelection path).

DUT (dut) **PASS** 6.10 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentDetails_005

TC_SECC_CMN_VTB_PaymentDetails_005.

Test objective: GoodCase; PaymentDetailsReq with an invalid SessionID → FAILED_UnknownSession, TCP close. PnC.

DUT (dut) **PASS** 5.90 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PaymentDetailsRes message	got 'PaymentDetailsRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentDetails_006

TC_SECC_CMN_VTB_PaymentDetails_006.

Test objective: GoodCase; wait until V2G_Sequence_Timeout expires after a PaymentServiceSelectionRes (OK) → SUT terminates the session. PnC. LONG TEST.

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s) with no PaymentDetailsReq	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64030.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_PaymentDetails_007

TC_SECC_CMN_VTB_PaymentDetails_007.

Test objective: GoodCase; PaymentDetailsReq with a valid EMAID but an invalid (Expired) contract certificate chain → FAILED_CertificateExpired, TCP close. PnC.

DUT (dut) **PASS** 6.31 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT rejects the expired contract leaf certificate (FAILED_CertificateExpired)	got 'FAILED_CertificateExpired'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentDetails_008

TC_SECC_CMN_VTB_PaymentDetails_008.

Test objective: GoodCase; invalid contract certificate chain (invalid content)

→ one of FAILED / FAILED_NoCertificateAvailable /

FAILED_CertificateNotAllowedAtThisEVSE, TCP close. PnC.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT rejects the corrupt contract leaf content (one of ('FAILED', 'FAILED_NoCertificateAvailable', 'FAILED_CertificateNotAllowedAtThisEVSE'))	got 'FAILED'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentDetails_009

TC_SECC_CMN_VTB_PaymentDetails_009.

Test objective: GoodCase; invalid contract certificate chain (expired issuer Sub CA 1) → one of FAILED / FAILED_NoCertificateAvailable / FAILED_CertificateNotAllowedAtThisEVSE, TCP close. PnC.

DUT (dut) **PASS** 6.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT rejects the chain with an expired issuer (MO Sub-CA 1) (one of ('FAILED', 'FAILED_NoCertificateAvailable', 'FAILED_CertificateNotAllowedAtThisEVSE'))	got 'FAILED'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_PaymentDetails_010

TC_SECC_CMN_VTB_PaymentDetails_010.

Test objective: GoodCase; invalid contract certificate chain (expired issuer Sub CA 2) → one of FAILED / FAILED_NoCertificateAvailable / FAILED_CertificateNotAllowedAtThisEVSE, TCP close. PnC.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT rejects the chain with an expired issuer (MO Sub-CA 2) (one of ('FAILED', 'FAILED_NoCertificateAvailable', 'FAILED_CertificateNotAllowedAtThisEVSE'))	got 'FAILED'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_001

TC_SECC_CMN_VTB_Authorization_001.

Test objective: GoodCase; Test System sends AuthorizationReq with the current SessionID and all mandatory parameters, and checks the SUT replies AuthorizationRes with the current SessionID, ResponseCode OK and EVSEProcessing Finished. If an earlier AuthorizationRes had EVSEProcessing Ongoing[_WaitingForCustomerInteraction] the Test System repeats the AuthorizationReq until authorization finishes or V2G_EVCC_Ongoing_Timer expires.

DUT (dut) **PASS** 7.18 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 2 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
Authorization polls to EVSEProcessing=Finished	2	-	info

TC_SECC_CMN_VTB_Authorization_002

TC_SECC_CMN_VTB_Authorization_002.

Test objective: as _001 but PnC (AuthorizationReq with a valid signature and GenChallenge) → OK, EVSEProcessing Finished.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 2 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PnC Authorization polls to EVSEProcessing=Finished	2	-	info

TC_SECC_CMN_VTB_Authorization_003

TC_SECC_CMN_VTB_Authorization_003.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq instead of AuthorizationReq (sequence error) and checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_004

TC_SECC_CMN_VTB_Authorization_004.

Test objective: as _003 (ServiceDiscoveryReq instead → FAILED_SequenceError, TCP close) but reached via the PnC PaymentDetails precondition.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_005

TC_SECC_CMN_VTB_Authorization_005.

Test objective: GoodCase; Test System sends AuthorizationReq with an invalid SessionID and checks the SUT replies with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
AuthorizationRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_006

TC_SECC_CMN_VTB_Authorization_006.

Test objective: PnC; AuthorizationReq with a valid signature, invalid SessionID, valid GenChallenge → FAILED_UnknownSession, TCP close.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
AuthorizationRes response time	102.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_007

TC_SECC_CMN_VTB_Authorization_007.

Test objective: PnC; AuthorizationReq with a valid signature, current SessionID, invalid GenChallenge → FAILED_ChallengeInvalid, TCP close.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_ChallengeInvalid	got 'FAILED_ChallengeInvalid'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
AuthorizationRes response time	102.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_008

TC_SECC_CMN_VTB_Authorization_008.

Test objective: GoodCase; after a PaymentServiceSelectionRes (OK) the Test System stays silent until V2G_Sequence_Timeout expires (sends no AuthorizationReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST.

DUT (dut) **PASS** 70.29 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (≥ 59 s, within 70s)	closed 64.0s after PaymentServiceSelectionRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64030.0 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_Authorization_009

TC_SECC_CMN_VTB_Authorization_009.

Test objective: as _008 but waits V2G_Sequence_Timeout after a PaymentDetailsRes (OK, valid GenChallenge) → TCP close. PnC. LONG TEST.

DUT (dut) **PASS** 70.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (>= 59s, within 70s)	closed 64.0s after PaymentDetailsRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64022.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_Authorization_010

TC_SECC_CMN_VTB_Authorization_010.

Test objective: PnC; AuthorizationReq with an invalid signature (wrong private key) → FAILED_SignatureError, TCP close.

DUT (dut) **PASS** 6.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
AuthorizationRes response time	101.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_011

TC_SECC_CMN_VTB_Authorization_011.

Test objective: PnC; AuthorizationReq with an invalid signature (signed body changed after signature calculation) → FAILED_SignatureError, TCP close.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SignatureError (body tampered after signing)	got 'FAILED_SignatureError'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
AuthorizationRes response time	101.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_Authorization_012

TC_SECC_CMN_VTB_Authorization_012.

Test objective: PnC happy path (valid signature, GenChallenge → OK, Finished)
after a certificate installation provisioning.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 2 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateInstallationRes response time	104.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PnC Authorization polls to Finished (post-install)	2	-	info

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:22:33.277	CS & rarr; CSMS	StatusNotification	{ "connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:22:33.276Z" }
06:22:33.277	CSMS & rarr; CS	StatusNotification (response)	{ }

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:22:35.710	CS & CSMS	Get15118EVCertificate	{ "action": "Install", "exiRequest": "<1044 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef" }
06:22:35.723	CSMS & CS	Get15118EVCertificate (response)	{ "exiResponse": "<5568 base64 chars>", "status": "Accepted" }
06:22:35.943	CS & CSMS	Authorize	{ "idToken": { "idToken": "UKSWI123456791A", "type": "eMAID" }, "iso15118CertificateHashData": [{ "hashAlgorithm": "SHA256", "issuerKeyHash": "3250ea6f8316a4442511e63619f926ea7e954eeca3949a05dbe184be4b3faa15", "issuerNameHash": "efc5a55e6e1e59c7605b48d7f260f2321aba004f97f5872986c3388f8756dce5", "responderURL": "https://www.example.com/", "serialNumber": "3044" }, { "hashAlgorithm": "SHA256", "issuerKeyHash": "af2df149432c481546817a7279eca0c5a23697fc3482f5b1a91b372a7468c7e1", "issuerNameHash": "0fd741fe2020f72842fa212a4dc59f00d8d9e04a48d6eb01ea68e63978ac0c4a", "responderURL": "https://www.example.com/", "serialNumber": "3043 ...
06:22:35.944	CSMS & CS	Authorize (response)	{ "certificateStatus": "Accepted", "idTokenInfo": { "status": "Accepted" } }
06:22:35.984	CS & CSMS	TransactionEvent	{ "eventType": "Started", "evse": { "connectorId": 1, "id": 1 }, "idToken": { "additionalInfo": [{ "additionalIdToken": "B6:78:34:48:CB:39", "type": "EVCCID" }], "idToken": "UKSWI123456791A", "type": "eMAID" }, "meterValue": { "sampledValue": [{ "context": "Transaction.Begin", "location": "Outlet", "measurand": "Energy.Active.Import.Register", "unitOfMeasure": { "unit": "Wh", "value": 570.6034545898438 }, { "context": "Transaction.Begin", "location": "Outlet", "measurand": "Current.Import", "unitOfMeasure": { "unit": "A", "value": 0.0 }], "timestamp": "2026-10-11T06:22:35.945Z" }], "offline": false, "seqNo": 0, "timestamp": "2026-10-11T06:22:35.981Z", " ...
06:22:35.986	CSMS & CS	TransactionEvent (response)	{ "idTokenInfo": { "status": "Accepted" } }

TC_SECC_CMN_VTB_Authorization_013

TC_SECC_CMN_VTB_Authorization_013.

Test objective: as _012 but after a certificate update provisioning → OK,
Finished. PnC.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PnC Authorization polls to Finished (post-update)	2	-	info

Ocpp (DUT ↔ tester CSMS)	Direction	Message	Payload
06:22:40.276	CS & CSMS	StatusNotification	{ "connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:22:40.275Z" }
06:22:40.276	CSMS & CS	StatusNotification (response)	{}
06:22:42.710	CS & CSMS	Get15118EVCertificate	{ "action": "Update", "exiRequest": "<2916 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef" }
06:22:42.718	CSMS & CS	Get15118EVCertificate (response)	{ "exiResponse": "<5568 base64 chars>", "status": "Accepted" }
06:22:42.942	CS & CSMS	Authorize	{ "idToken": { "idToken": "UKSWI123456791A", "type": "eMAID" }, "iso15118CertificateHashData": { "hashAlgorithm": "SHA256", "issuerKeyHash": "3250ea6f8316a4442511e63619f926ea7e954eeca3949a05dbe184be4b3fa15", "issuerNameHash": "efc5a55e6e1e59c7605b48d7f260f2321aba004f97f5872986c3388f8756dce5", "responderURL": "https://www.example.com/", "serialNumber": "3044" }, { "hashAlgorithm": "SHA256", "issuerKeyHash": "af2df149432c481546817a7279eca0c5a23697fc3482f5b1a91b372a7468c7e1", "issuerNameHash": "0fd741fe2020f72842fa212a4dc59f00d8d9e04a48d6eb01ea68e63978ac0c4a", "responderURL": "https://www.example.com/", "serialNumber": "3043 ...
06:22:42.943	CSMS & CS	Authorize (response)	{ "certificateStatus": "Accepted", "idTokenInfo": { "status": "Accepted" } }
06:22:42.983	CS & CSMS	TransactionEvent	{ "eventType": "Started", "evse": { "connectorId": 1, "id": 1 }, "idToken": { "additionalInfo": { "additionalIdToken": "B6:78:34:48:CB:39", "type": "EVCCID" }, "idToken": "UKSWI123456791A", "type": "eMAID", "meterValue": { "sampledValue": { "context": "Transaction.Begin", "location": "Outlet", "measurand": "Energy.Active.Import.Register", "unitOfMeasure": { "unit": "Wh", "value": 570.6034545898438 }, "context": "Transaction.Begin", "location": "Outlet", "measurand": "Current.Import", "unitOfMeasure": { "unit": "A", "value": 0.0 }, "timestamp": "2026-10-11T06:22:42.949Z" }, "offline": false, "seqNo": 0, "timestamp": "2026-10-11T06:22:42.980Z", " ...
06:22:42.984	CSMS & CS	TransactionEvent (response)	{ "idTokenInfo": { "status": "Accepted" } }

TC_SECC_CMN_VTB_ChargeParameterDiscovery_001

TC_SECC_CMN_VTB_ChargeParameterDiscovery_001.

Test objective: GoodCase; the Test System sends a valid ServiceDiscoveryReq instead of a ChargeParameterDiscoveryReq (sequence error) and checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got FAILED_SequenceError (name=ServiceDiscoveryRes)	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_CMN_VTB_ChargeParameterDiscovery_002

TC_SECC_CMN_VTB_ChargeParameterDiscovery_002.

Test objective: GoodCase; after an AuthorizationRes (OK, EVSEProcessing Finished) the Test System stays silent until V2G_Sequence_Timeout expires (sends no ChargeParameterDiscoveryReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST.

DUT (dut) **PASS** 70.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout ($\geq$ 59s, within 70s)	closed 64.0s after AuthorizationRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	$\leq$ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	$\leq$ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	$\leq$ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	$\leq$ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	$\leq$ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	$\leq$ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	$\leq$ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64025.9 ms	$\leq$ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_ChargeParameterDiscovery_001

TC_SECC_DC_VTB_ChargeParameterDiscovery_001.

Test objective: GoodCase; the Test System sends a ChargeParameterDiscoveryReq with the current SessionID, a valid RequestedEnergyTransferMode (DC_extended) and a valid DC_EVChargeParameter, without MaxEntriesSAScheduleTuple and DepartureTime. Checks the SUT replies ChargeParameterDiscoveryRes with the current SessionID, ResponseCode OK, EVSEProcessing Finished and a valid SAScheduleList; if an earlier response had EVSEProcessing Ongoing the Test System repeats until Finished or V2G_EVCC_Ongoing_Timer. Primary happy-path ChargeParameterDiscovery TC (DC).

DUT (dut) **PASS** 7.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓
ChargeParameterDiscoveryRes(Finished) carries a SAScheduleList	SAScheduleList=[{'PMaxScheduleEntry': [{'PMax': {'multiplier': 2, 'unit': 'W', 'value': 1500}, 'duration': 86400, 'start': 0}], 'SAScheduleTupleID': 1}]	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
ChargeParameterDiscovery polls to EVSEProcessing=Finished	1	-	info
ChargeParameterDiscoveryRes SAScheduleList entries	1	≥ 1	✓

TC_SECC_DC_VTB_ChargeParameterDiscovery_002

TC_SECC_DC_VTB_ChargeParameterDiscovery_002.

Test objective: GoodCase; the Test System sends a ChargeParameterDiscoveryReq with an invalid SessionID and a valid RequestedEnergyTransferMode. Checks the SUT replies ChargeParameterDiscoveryRes with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got FAILED_UnknownSession (name=ChargeParameterDiscoveryRes)	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	102.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ChargeParameterDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_ChargeParameterDiscovery_003

TC_SECC_DC_VTB_ChargeParameterDiscovery_003.

Test objective: GoodCase; the Test System sends a ChargeParameterDiscoveryReq with an invalid / mismatched RequestedEnergyTransferMode (a mode the SUT does not offer). Checks the SUT replies ChargeParameterDiscoveryRes with FAILED_WrongEnergyTransferMode, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 6.99 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_WrongEnergyTransferMode	got FAILED_WrongEnergyTransferMode (name=ChargeParameterDiscoveryRes)	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ChargeParameterDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_ChargeParameterDiscovery_004

TC_SECC_DC_VTB_ChargeParameterDiscovery_004.

Test objective: GoodCase; the Test System sends a ChargeParameterDiscoveryReq with a valid RequestedEnergyTransferMode but an invalid DC_EVChargeParameter (EVMaximumCurrentLimit -100). Checks the SUT replies ChargeParameterDiscoveryRes with FAILED_WrongChargeParameter, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_WrongChargeParameter	got FAILED_WrongChargeParameter (name=ChargeParameterDiscoveryRes)	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	100.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ChargeParameterDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_ChargeParameterDiscovery_006

TC_SECC_DC_VTB_ChargeParameterDiscovery_006.

Test objective: GoodCase; ChargeParameterDiscoveryReq with a valid mode, without MaxEntriesSAScheduleTuple, WITH DepartureTime → ChargeParameterDiscoveryRes OK, EVSEProcessing Finished, valid SAScheduleList (Ongoing repeats allowed).

DUT (dut) **PASS** 7.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓
ChargeParameterDiscoveryRes(Finished) carries a SAScheduleList	SAScheduleList=[{'PMaxScheduleEntry': [{'PMax': {'multiplier': 2, 'unit': 'W', 'value': 1500}, 'duration': 7200, 'start': 0}], 'SAScheduleTupleID': 1}]	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ChargeParameterDiscovery polls to EVSEProcessing=Finished	1	-	info

Measurement	Measured	Target / range	Result
ChargeParameterDiscoveryRes SAScheduleList entries	1	≥ 1	✓

TC_SECC_DC_VTB_ChargeParameterDiscovery_012

TC_SECC_DC_VTB_ChargeParameterDiscovery_012.

Test objective: GoodCase; ChargeParameterDiscoveryReq valid mode, WITH
MaxEntriesSAScheduleTuple, without DepartureTime → ChargeParameterDiscoveryRes
OK, Finished, valid SAScheduleList (MaxEntries considered).

DUT (dut) **PASS** 7.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓
ChargeParameterDiscoveryRes(Finished) carries a SAScheduleList	SAScheduleList=[{'PMaxScheduleEntry': [{'PMax': {'multiplier': 2, 'unit': 'W', 'value': 1500}, 'duration': 86400, 'start': 0}], 'SAScheduleTupleID': 1}]	✓
SAScheduleList honours MaxEntriesSAScheduleTuple (<= 3)	got 1 tuple(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ChargeParameterDiscovery polls to EVSEProcessing=Finished	1	-	info

Measurement	Measured	Target / range	Result
ChargeParameterDiscoveryRes SAScheduleList entries	1	≥ 1	✓

TC_SECC_DC_VTB_ChargeParameterDiscovery_016

TC_SECC_DC_VTB_ChargeParameterDiscovery_016.

Test objective: GoodCase; ChargeParameterDiscoveryReq valid mode, WITH MaxEntries and DepartureTime → ChargeParameterDiscoveryRes OK, Finished, valid SAScheduleList (MaxEntries considered).

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓
ChargeParameterDiscoveryRes(Finished) carries a SAScheduleList	SAScheduleList=[{'PMaxScheduleEntry': [{'PMax': {'multiplier': 2, 'unit': 'W', 'value': 1500}, 'duration': 7200, 'start': 0}], 'SAScheduleTupleID': 1}]	✓
SAScheduleList honours MaxEntriesSAScheduleTuple (<= 3)	got 1 tuple(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ChargeParameterDiscovery polls to EVSEProcessing=Finished	1	-	info

Measurement	Measured	Target / range	Result
ChargeParameterDiscoveryRes SAScheduleList entries	1	≥ 1	✓

TC_SECC_DC_VTB_CableCheck_001

TC_SECC_DC_VTB_CableCheck_001.

Test objective: GoodCase; Test System signals CP State C and sends a CableCheckReq with the current SessionID and all mandatory parameters. Checks the SUT replies CableCheckRes with the current SessionID, ResponseCode OK, EVSEProcessing Finished and all mandatory parameters. If an earlier CableCheckRes had EVSEProcessing Ongoing the Test System repeats the CableCheckReq until the SUT's cable check has finished or V2G_EVCC_CableCheck_Timer expires. Primary happy-path CableCheck TC (CP C).

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' (after 11 poll(s), 3.6s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CableCheck polls to EVSEProcessing=Finished	11	-	info
CableCheck IMD self-test completion time	3617.3 ms	-	info

TC_SECC_DC_VTB_CableCheck_003

TC_SECC_DC_VTB_CableCheck_003.

Test objective: GoodCase; the Test System signals CP State C or D and sends a valid ServiceDiscoveryReq instead of a CableCheckReq (sequence error). Checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 7.39 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got FAILED_SequenceError (name=ServiceDiscoveryRes)	✓
SUT closes the TCP connection within par_CMN_TCP_Connection_Termination_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_CableCheck_004

TC_SECC_DC_VTB_CableCheck_004.

Test objective: GoodCase; CP State C or D; the Test System sends a CableCheckReq with an invalid SessionID and all mandatory parameters. Checks the SUT replies CableCheckRes with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 8.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got FAILED_UnknownSession (name=CableCheckRes)	✓
SUT closes the TCP connection within par_CMN_TCP_Connection_Termination_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CableCheckRes response time	101.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_CableCheck_005

TC_SECC_DC_VTB_CableCheck_005.

Test objective: GoodCase; after a ChargeParameterDiscoveryRes (OK, EVSEProcessing Finished, valid scheduleList) the Test System stays silent until V2G_Sequence_Timeout expires (sends no CableCheckReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST.

DUT (dut) **PASS** 71.49 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s)	closed 64.0s after ChargeParameterDiscoveryRes	✓
SUT does not close before V2G_Sequence_Timeout expires (>= 55s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64031.9 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_CableCheck_006

TC_SECC_DC_VTB_CableCheck_006.

Test objective: GoodCase; CableCheckReq with the current SessionID → CableCheckRes OK, EVSEProcessing Finished. The repetition of the CableCheck message sequence is checked (EVSEProcessing Ongoing) until the SUT's cable check has finished or V2G_EVCC_CableCheck_Timer expires. (PICS CableCheckOngoing=ongoing; exercises the repeated-Ongoing loop.)

DUT (dut) **PASS** 11.51 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
CableCheckRes = OK, EVSEProcessing Finished	got ResponseCode='OK', EVSEProcessing='Finished' after 12 poll(s)	✓
At least one CableCheckRes had EVSEProcessing=Ongoing (repeated-Ongoing loop exercised)	reached Finished after 12 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CableCheck polls to EVSEProcessing=Finished	12	-	info
CableCheck IMD self-test completion time	3967.3 ms	-	info

TC_SECC_DC_VTB_CableCheck_008

TC_SECC_DC_VTB_CableCheck_008.

Test objective: GoodCase; the Test System signals NO CP State C or D and sends a CableCheckReq with the current SessionID and all mandatory parameters. Checks the SUT replies CableCheckRes with the current SessionID, ResponseCode FAILED, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout. (Requires the bench to hold the CP off both State C and State D -- the EV stays in State B here.)

[V2G2-916]..[V2G2-918]: on the first CableCheckReq the SECC waits V2G_SECC_CPState_Detection_Timeout for CP State C/D before responding; with the CP held in B it answers FAILED and closes. The SECC parks the request until the CP state is reported, which absorbs the CP-state/CableCheckReq cross-transport ordering so the outcome is deterministic.

DUT (dut) **PASS** 9.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode is FAILED (CP not in State C/D)	got 'FAILED'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
CableCheckRes response time	1524.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PreCharge_001

TC_SECC_DC_VTB_PreCharge_001.

Test objective: GoodCase; Test System sends a PreChargeReq with the current SessionID, target voltage and current and all mandatory parameters. Checks the SUT replies PreChargeRes with the current SessionID, ResponseCode OK, EVSEStatusCode EVSE_Ready and all mandatory parameters. If the Test System sends another valid PreChargeReq the SUT shall respond again; the sequence repeats until the required voltage has been reached or V2G_EVCC_PreCharge_Timer expires. "Reached" is asserted as EVSEPresentVoltage within +/-20 V of the EV target voltage (the tester's reached-tolerance).
Primary happy-path PreCharge TC.

DUT (dut) **PASS** 11.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PreChargeRes message	got 'PreChargeRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEPresentVoltage reaches the 400 V target (+/-20 V)	got 400.0 V after 3 poll(s), 0.7s	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
EVSEPresentVoltage at PreCharge target	400.0 V	400 ± 20.0 V	✓
PreCharge polls to within-tolerance voltage	3	-	info

TC_SECC_DC_VTB_PreCharge_002

TC_SECC_DC_VTB_PreCharge_002.

Test objective: GoodCase; the Test System sends a valid ServiceDiscoveryReq instead of a PreChargeReq (sequence error). Checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got FAILED_SequenceError (name=ServiceDiscoveryRes)	✓
SUT closes the TCP connection within par_CMN_TCP_Connection_Termination_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PreCharge_003

TC_SECC_DC_VTB_PreCharge_003.

Test objective: GoodCase; the Test System sends a PreChargeReq with an invalid SessionID, target voltage and current and all mandatory parameters. Checks the SUT replies PreChargeRes with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 11.30 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got FAILED_UnknownSession	✓
SUT closes the TCP connection within par_CMN_TCP_Connection_Termination_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PreChargeRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PreCharge_004

TC_SECC_DC_VTB_PreCharge_004.

Test objective: GoodCase; after a CableCheckRes (OK, EVSEProcessing Finished) the Test System stays silent until V2G_Sequence_Timeout expires (sends no PreChargeReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout after the timeout. LONG TEST. (The -4 table text names CableCheckRes as the preceding message; the PreCharge precondition is CableCheck done -- see doc/tc_catalog_iso4_wave4.md.)

DUT (dut) **PASS** 75.19 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s)	closed 64.0s after CableCheckRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

Measurement	Measured	Target / range	Result
supportedAppProtocolRes response time	100.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64021.6 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_PowerDelivery_001

TC_SECC_DC_VTB_PowerDelivery_001.

Test objective: GoodCase; Test System sends a PowerDeliveryReq with the current SessionID, ChargeProgress=Start, a valid ChargingProfile and a valid SAScheduleTupleID. Checks the SUT replies PowerDeliveryRes with the current SessionID, ResponseCode OK. Primary happy-path PowerDelivery TC (Start).

DUT (dut) **PASS** 11.81 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_002

TC_SECC_DC_VTB_PowerDelivery_002.

Test objective: GoodCase; the Test System sends a PowerDeliveryReq with the current SessionID, ChargeProgress=Stop; after receiving the valid PowerDeliveryRes it signals CP State B. Checks the SUT replies PowerDeliveryRes with the current SessionID, ResponseCode OK.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
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Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_003

TC_SECC_DC_VTB_PowerDelivery_003.

Test objective: GoodCase; the Test System sends a valid ServiceDiscoveryReq instead of a PowerDeliveryReq (ChargeProgress Start context, sequence error). Checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
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Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError' (name='ServiceDiscoveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_004

TC_SECC_DC_VTB_PowerDelivery_004.

Test objective: as _003 but in the Stop context -- GoodCase through the charge loop, then a valid ServiceDiscoveryReq instead of a PowerDeliveryReq (ChargeProgress Stop context). Checks ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then TCP close.

DUT (dut) **PASS** 13.00 s

[illegible]

Conformance check	Observed	Result
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError' (name='ServiceDiscoveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.0 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_005

TC_SECC_DC_VTB_PowerDelivery_005.

Test objective: GoodCase; the Test System sends a PowerDeliveryReq with an invalid SessionID, ChargeProgress=Start, a valid ChargingProfile and SAScheduleTupleID. Checks the SUT replies PowerDeliveryRes with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT does not answer OK to an unknown SessionID	SUT did not validate the (unknown) SessionID and answered OK instead of FAILED_UnknownSession; the -4 ATS requires FAILED_UnknownSession and a TCP close.	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession' (name='PowerDeliveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_006

TC_SECC_DC_VTB_PowerDelivery_006.

Test objective: as _005 but ChargeProgress=Stop -- GoodCase through the charge loop, then a PowerDeliveryReq with an invalid SessionID, ChargeProgress=Stop. Checks PowerDeliveryRes with a valid SessionID, FAILED_UnknownSession, then TCP close.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT does not answer OK to an unknown SessionID	SUT did not validate the (unknown) SessionID and answered OK instead of FAILED_UnknownSession; the -4 ATS requires FAILED_UnknownSession and a TCP close.	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession' (name='PowerDeliveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_007

TC_SECC_DC_VTB_PowerDelivery_007.

Test objective: GoodCase; the Test System sends a PowerDeliveryReq with the current SessionID, ChargeProgress=Start, an invalid ChargingProfile (its ChargingProfileEntryMaxPower exceeds EVSEMaximumPowerLimit) and a valid SAScheduleTupleID. Checks the SUT replies PowerDeliveryRes with the current SessionID, FAILED_ChargingProfileInvalid, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_ChargingProfileInvalid	got 'FAILED_ChargingProfileInvalid' (name='PowerDeliveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_008

TC_SECC_DC_VTB_PowerDelivery_008.

Test objective: GoodCase; the Test System sends a PowerDeliveryReq with the current SessionID, ChargeProgress=Start, a valid ChargingProfile and an invalid SAScheduleTupleID. Checks the SUT replies PowerDeliveryRes with the current SessionID, FAILED_TariffSelectionInvalid, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_TariffSelectionInvalid	got 'FAILED_TariffSelectionInvalid' (name='PowerDeliveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_009

TC_SECC_DC_VTB_PowerDelivery_009.

Test objective: GoodCase; after a PreChargeRes (current SessionID, ResponseCode OK) the Test System stays silent until V2G_Sequence_Timeout expires (sends no PowerDeliveryReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout. LONG TEST.

DUT (dut) **PASS** 75.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (≥ 59 s, within 70s)	closed 64.0s after PreChargeRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64026.5 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_PowerDelivery_010

TC_SECC_DC_VTB_PowerDelivery_010.

Test objective: GoodCase; after a valid CurrentDemandRes (or MeteringReceipt) the Test System stays silent until V2G_Sequence_Timeout expires (sends no PowerDeliveryReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout. LONG TEST.

DUT (dut) **PASS** 77.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (>= 59s, within 70s)	closed 63.8s after CurrentDemandRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	63779.8 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_PowerDelivery_013

TC_SECC_DC_VTB_PowerDelivery_013.

Test objective: GoodCase; the Test System sends a PowerDeliveryReq with the current SessionID, ChargeProgress=Renegotiate but no PowerDeliveryReq with ChargeProgress=Start was sent before. Checks the SUT replies PowerDeliveryRes with the current SessionID, ResponseCode FAILED, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT rejects ChargeProgress=Renegotiate without a prior Start (not OK)	got 'FAILED'	✓
ResponseCode = FAILED	got 'FAILED'	✓
SUT closes the TCP connection after the FAILED response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Renegotiate) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_PowerDelivery_014

TC_SECC_DC_VTB_PowerDelivery_014.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with DC_EVStatus.EVErrorcode=FAILED_RESSTemperatureInhibit. The EVErrorcode must not influence the charging process → PowerDeliveryRes OK.

DUT (dut) **PASS** 13.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_RESSTemperatureInhibit ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.8 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_015

TC_SECC_DC_VTB_PowerDelivery_015.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with DC_EVStatus.EVErrorCode=FAILED_EVShiftPosition. Must be ignored → PowerDeliveryRes OK.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_EVShiftPosition ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.6 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_016

TC_SECC_DC_VTB_PowerDelivery_016.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with
 DC_EVStatus.EVErrorCode=FAILED_ChargerConnectorLockFault. Must be ignored →
 PowerDeliveryRes OK.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_ChargerConnectorLockFault ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.6 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_017

TC_SECC_DC_VTB_PowerDelivery_017.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with DC_EVStatus.EVErrorCode=FAILED_EVRESSMalfunction. Must be ignored → PowerDeliveryRes OK.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_EVRESSMalfunction ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.6 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	102.0 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_018

TC_SECC_DC_VTB_PowerDelivery_018.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with
 DC_EVStatus.EVErrorCode=FAILED_ChargingCurrentdifferential. Must be ignored →
 PowerDeliveryRes OK.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_ChargingCurrentdifferential ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.7 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_019

TC_SECC_DC_VTB_PowerDelivery_019.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with
 DC_EVStatus.EVErrorCode=FAILED_ChargingVoltageOutOfRange. Must be ignored →
 PowerDeliveryRes OK.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_ChargingVoltageOutOfRange ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.9 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_020

TC_SECC_DC_VTB_PowerDelivery_020.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with
 DC_EVStatus.EVErrorCode=FAILED_ChargingSystemIncompatibility. Must be ignored
 → PowerDeliveryRes OK.

DUT (dut) **PASS** 13.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓

Conformance check	Observed	Result
EVErrorCode FAILED_ChargingSystemIncompatibility ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_PowerDelivery_021

TC_SECC_DC_VTB_PowerDelivery_021.

Test objective: GoodCase; PowerDeliveryReq ChargeProgress=Stop with DC_EVStatus.EVErrorCode=NoData (no error). → PowerDeliveryRes OK.

DUT (dut) **PASS** 13.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
EVErrorCode NoData ignored on Stop → ResponseCode = OK	got 'OK' (0.1s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_CurrentDemand_001

TC_SECC_DC_VTB_CurrentDemand_001.

Test objective: GoodCase; the Test System sends a CurrentDemandReq with the current SessionID, target voltage and current and all mandatory parameters.

Checks the SUT replies CurrentDemandRes with the current SessionID, ResponseCode OK, ReceiptRequired false and all mandatory parameters. Primary happy-path CurrentDemand TC.

DUT (dut) **PASS** 11.81 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK' (0.1s)	✓
CurrentDemandRes carries mandatory EVSEPresentVoltage	present	✓
CurrentDemandRes carries mandatory EVSEPresentCurrent	present	✓

Conformance check	Observed	Result
CurrentDemandRes carries mandatory EVSEID	present	✓
CurrentDemandRes carries mandatory SAScheduleTupleID	present	✓
CurrentDemandRes carries mandatory DC_EVSEStatus	present	✓
EVSEPresentVoltage is sourcing (> 0 V)	got 400.0 V	✓
ReceiptRequired is false (eIM free service)	ReceiptRequired=None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemandRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CurrentDemand EVSEPresentVoltage	400.0 V	≥ 0 V	✓
CurrentDemand EVSEPresentCurrent	10.0 A	-	info

TC_SECC_DC_VTB_CurrentDemand_002

TC_SECC_DC_VTB_CurrentDemand_002.

Test objective: as _001 but pnC with ReceiptRequired true → CurrentDemandRes
OK, ReceiptRequired true. Boots config-test-conformance-pnc.yaml with
ev_receipt_required=true and drives a real Contract DC session into the
CurrentDemand loop; fails honestly if the SUT never sets ReceiptRequired.

DUT (dut) **PASS** 12.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sets ReceiptRequired=true in a CurrentDemandRes(OK)		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_CurrentDemand_003

TC_SECC_DC_VTB_CurrentDemand_003.

Test objective: GoodCase; the Test System sends a valid ServiceDiscoveryReq instead of a CurrentDemandReq (sequence error). Checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_SequenceError	got FAILED_SequenceError (name=ServiceDiscoveryRes)	✓
SUT closes the TCP connection within par_CMN_TCP_Connection_Termination_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_CurrentDemand_004

TC_SECC_DC_VTB_CurrentDemand_004.

Test objective: GoodCase; the Test System sends a CurrentDemandReq with an invalid SessionID. Checks the SUT replies CurrentDemandRes with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 12.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got FAILED_UnknownSession (name=CurrentDemandRes)	✓
SUT closes the TCP connection within par_CMN_TCP_Connection_Termination_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemandRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_CurrentDemand_005

TC_SECC_DC_VTB_CurrentDemand_005.

Test objective: GoodCase; after a PowerDeliveryRes (current SessionID, ResponseCode OK) the Test System stays silent until V2G_Sequence_Timeout expires (sends no CurrentDemandReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout. LONG TEST.

DUT (dut) **PASS** 75.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s)	closed 64.0s after PowerDeliveryRes	✓
SUT does not close before V2G_Sequence_Timeout expires (>= 55s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	64036.0 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_CurrentDemand_006

TC_SECC_DC_VTB_CurrentDemand_006.

Test objective: GoodCase; CurrentDemandReq (current SessionID, target V and I, all mandatory). Checks CurrentDemandRes OK, ReceiptRequired false, including a MeterInfo. (MeterInfo is PIXIT-driven; this free-service SUT may omit it -- the reachable OK + present-voltage assertion is checked, MeterInfo presence is N/A.)

DUT (dut) **PASS** 12.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK' (0.1s)	✓
CurrentDemandRes carries mandatory EVSEPresentVoltage	present	✓
CurrentDemandRes carries mandatory EVSEPresentCurrent	present	✓

Conformance check	Observed	Result
CurrentDemandRes carries mandatory EVSEID	present	✓
CurrentDemandRes carries mandatory SAScheduleTupleID	present	✓
CurrentDemandRes carries mandatory DC_EVSEStatus	present	✓
EVSEPresentVoltage is sourcing (> 0 V)	got 400.0 V	✓
ReceiptRequired is false (eIM free service)	ReceiptRequired=None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemandRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CurrentDemand EVSEPresentVoltage	400.0 V	≥ 0 V	✓
CurrentDemand EVSEPresentCurrent	10.0 A	-	info

TC_SECC_DC_VTB_CurrentDemand_007

TC_SECC_DC_VTB_CurrentDemand_007.

Test objective: as _006 (MeterInfo) but pnC with ReceiptRequired true. Boots the PnC config with ev_receipt_required=true and drives a real Contract DC session; fails honestly if the SUT never sets ReceiptRequired.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sets ReceiptRequired=true in a CurrentDemandRes(OK)		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemand MeterReading	676 Wh	-	info

TC_SECC_DC_VTB_CurrentDemand_008

TC_SECC_DC_VTB_CurrentDemand_008.

Test objective: GoodCase; CurrentDemandReq (current SessionID, target V and I, all mandatory). Checks CurrentDemandRes OK, ReceiptRequired false, MeterInfo including MeterReading. (MeterInfo/MeterReading are PIXIT-driven; N/A on this free-service SUT -- the reachable OK + present-voltage assertion is checked.)

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK' (0.1s)	✓
CurrentDemandRes carries mandatory EVSEPresentVoltage	present	✓
CurrentDemandRes carries mandatory EVSEPresentCurrent	present	✓
CurrentDemandRes carries mandatory EVSEID	present	✓

Conformance check	Observed	Result
CurrentDemandRes carries mandatory SAScheduleTupleID	present	✓
CurrentDemandRes carries mandatory DC_EVSEStatus	present	✓
EVSEPresentVoltage is sourcing (> 0 V)	got 400.0 V	✓
ReceiptRequired is false (eIM free service)	ReceiptRequired=None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemandRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CurrentDemand EVSEPresentVoltage	400.0 V	≥ 0 V	✓
CurrentDemand EVSEPresentCurrent	10.0 A	-	info

TC_SECC_DC_VTB_CurrentDemand_009

TC_SECC_DC_VTB_CurrentDemand_009.

Test objective: as _008 (MeterInfo incl MeterReading) but pnC with ReceiptRequired true. Boots the PnC config with ev_receipt_required=true and drives a real Contract DC session; fails honestly if the SUT never sets ReceiptRequired.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sets ReceiptRequired=true in a CurrentDemandRes(OK)		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemand MeterReading	681 Wh	-	info

TC_SECC_DC_VTB_MeteringReceipt_001

TC_SECC_DC_VTB_MeteringReceipt_001.

GoodCase; MeteringReceiptReq carrying a valid signature, the current SessionID, a valid SAScheduleTupleID and MeterInfo → MeteringReceiptRes OK.

DUT (dut) **PASS** 12.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a MeteringReceiptRes message	got 'MeteringReceiptRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓

TC_SECC_DC_VTB_MeteringReceipt_002

TC_SECC_DC_VTB_MeteringReceipt_002.

A valid ServiceDiscoveryReq instead of the expected MeteringReceiptReq → the SUT answers the received-type response with FAILED_SequenceError and closes the TCP connection [V2G2-539].

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_MeteringReceipt_003

TC_SECC_DC_VTB_MeteringReceipt_003.

MeteringReceiptReq with a valid signature but an invalid SessionID → MeteringReceiptRes FAILED_UnknownSession + TCP close [V2G2-388].

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a MeteringReceiptRes message	got 'MeteringReceiptRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_MeteringReceipt_004

TC_SECC_DC_VTB_MeteringReceipt_004.

MeteringReceiptReq whose signed content no longer matches the transmitted MeterReading (the receipt body was altered after the signature was calculated) → MeteringReceiptRes
FAILED_MeteringSignatureNotValid + TCP close.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_MeteringSignatureNotValid	got 'FAILED_MeteringSignatureNotValid'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_MeteringReceipt_005

TC_SECC_DC_VTB_MeteringReceipt_005.

After a CurrentDemandRes(OK) that requested a receipt, the EV sends nothing further; once V2G_SECC_Sequence_Timeout expires the SUT closes the TCP connection.

DUT (dut) **PASS** 76.69 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection on V2G_SECC_Sequence_Timeout		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	64023.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_MeteringReceipt_006

TC_SECC_DC_VTB_MeteringReceipt_006.

MeteringReceiptReq signed with a private key that does not belong to the contract leaf → MeteringReceiptRes FAILED_MeteringSignatureNotValid + TCP close.

DUT (dut) **PASS** 12.31 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a MeteringReceiptRes message	got 'MeteringReceiptRes'	✓
ResponseCode = FAILED_MeteringSignatureNotValid	got 'FAILED_MeteringSignatureNotValid'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_MeteringReceipt_007

TC_SECC_DC_VTB_MeteringReceipt_007.

MeteringReceiptReq whose body was changed after the signature calculation (the SignedInfo Reference digest no longer matches the transmitted element) → MeteringReceiptRes
 FAILED_MeteringSignatureNotValid + TCP close.

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a MeteringReceiptRes message	got 'MeteringReceiptRes'	✓
ResponseCode = FAILED_MeteringSignatureNotValid	got 'FAILED_MeteringSignatureNotValid'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_WeldingDetection_001

TC_SECC_DC_VTB_WeldingDetection_001.

Test objective: GoodCase; after PowerDelivery(Stop) the Test System sends a WeldingDetectionReq with the current SessionID and all mandatory parameters (DC_EVStatus). Checks the SUT replies WeldingDetectionRes with the current SessionID, ResponseCode OK, DC_EVSEStatus and EVSEPresentVoltage. Primary happy-path WeldingDetection TC.

DUT (dut) **PASS** 13.61 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a WeldingDetectionRes message	got 'WeldingDetectionRes'	✓
ResponseCode = OK	got 'OK' (0.1s)	✓
WeldingDetectionRes carries DC_EVSEStatus and EVSEPresentVoltage	keys=['DC_EVSEStatus', 'EVSEPresentVoltage', 'ResponseCode', 'ResponseCodeValue']	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	412.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
WeldingDetection EVSEPresentVoltage	400.0 V	-	info

TC_SECC_DC_VTB_WeldingDetection_002

TC_SECC_DC_VTB_WeldingDetection_002.

Test objective: GoodCase; the Test System sends a valid ServiceDiscoveryReq instead of a WeldingDetectionReq (sequence error). Checks the SUT replies ServiceDiscoveryRes with the current SessionID, FAILED_SequenceError, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 13.00 s

[illegible]

Conformance check	Observed	Result
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError' (name='ServiceDiscoveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_WeldingDetection_003

TC_SECC_DC_VTB_WeldingDetection_003.

Test objective: GoodCase; the Test System sends a WeldingDetectionReq with an invalid SessionID. Checks the SUT replies WeldingDetectionRes with a valid SessionID, FAILED_UnknownSession, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout.

DUT (dut) **PASS** 13.00 s

[illegible]

Conformance check	Observed	Result
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession' (name='WeldingDetectionRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_WeldingDetection_004

TC_SECC_DC_VTB_WeldingDetection_004.

Test objective: GoodCase; after a PowerDeliveryRes (current SessionID, ResponseCode OK) the Test System stays silent until V2G_Sequence_Timeout expires (sends no WeldingDetectionReq). Checks the SUT terminates the session by closing TCP within par_CMN_TCP_Connection_Termination_Timeout. LONG TEST.

DUT (dut) **PASS** 76.69 s

[illegible]

Conformance check	Observed	Result
SUT closes the TCP connection within V2G_Sequence_Timeout+termination (70s) with no WeldingDetectionReq	closed 63.7s after PowerDeliveryRes(Stop)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	100.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.1 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
TCP connection close after failure/ timeout	63731.6 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_DC_VTB_WeldingDetection_005

TC_SECC_DC_VTB_WeldingDetection_005.

Test objective: GoodCase; the Test System sends a WeldingDetectionReq with the current SessionID and all mandatory parameters WITHOUT signalling CP State B before. Checks the SUT replies WeldingDetectionRes with the current SessionID, ResponseCode FAILED, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout. (Requires the bench to hold the CP off State B after Stop -- the EV stays in State C here.)

[V2G2-920]..[V2G2-922]: after PowerDelivery(Stop) the SECC waits V2G_SECC_CPState_Detection_Timeout for CP State B before answering the WeldingDetectionReq; with no B it responds FAILED and closes.

DUT (dut) **PASS** 14.51 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED (no preceding CP State B)	got 'FAILED'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	1524.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_SessionStop_002

TC_SECC_DC_VTB_SessionStop_002.

Test objective: as _001 but after a WeldingDetection sequence

(PICS_SECC_DC_WeldingDetection=true): GoodCase through WeldingDetection, then

SessionStopReq ChargingSession=Terminate → SessionStopRes OK, data-link

teardown within par_TP_match_leave.

DUT (dut) **PASS** 13.78 s

[illegible]

Conformance check	Observed	Result
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK' (0.1s)	✓
SUT terminates the data link within par_TP_match_leave (1.25s)	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.6 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	101.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionStopRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SUT left the logical network after SessionStop(Terminate)	0.102 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_SessionStop_006

TC_SECC_DC_VTB_SessionStop_006.

Test objective: GoodCase; the Test System sends a SessionStopReq with the current SessionID and ChargingSession=Terminate WITHOUT signalling CP State B before. Checks the SUT replies SessionStopRes with the current SessionID, ResponseCode FAILED, then closes TCP within par_CMN_TCP_Connection_Termination_Timeout. (Requires the bench to hold the CP off State B -- the EV stays in State C here.)

[V2G2-920]..[V2G2-922]: after PowerDelivery(Stop) the SECC waits V2G_SECC_CPState_Detection_Timeout for CP State B before answering the SessionStopReq; with no B it responds FAILED and closes.

DUT (dut) **PASS** 14.20 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED (no preceding CP State B)	got 'FAILED'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.6 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
SessionStopRes response time	1524.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_SessionStop_007

TC_SECC_DC_VTB_SessionStop_007.

Test objective: as_003 (ServiceDiscoveryReq instead of SessionStopReq, FAILED_SequenceError + TCP close) but after a WeldingDetection sequence (PICS_SECC_DC_WeldingDetection=true).

DUT (dut) **PASS** 13.60 s

[illegible]

Conformance check	Observed	Result
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError' (name='ServiceDiscoveryRes')	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.6 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_SessionStop_008

TC_SECC_DC_VTB_SessionStop_008.

Test objective: as_004 (invalid SessionID → FAILED_UnknownSession + TCP close) but after a WeldingDetection sequence (PICS_SECC_DC_WeldingDetection=true).

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession' (name='SessionStopRes')	✓

Conformance check	Observed	Result
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	102.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionStopRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_SessionStop_009

TC_SECC_DC_VTB_SessionStop_009.

Test objective: as_005 (sequence timeout → TCP close) but after a WeldingDetection sequence (PICS_SECC_DC_WeldingDetection=true). LONG TEST.

DUT (dut) **PASS** 77.08 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection within V2G_Sequence_Timeout+termination (70s) with no SessionStopReq	closed 64.0s after PowerDeliveryRes(Stop)	✓

Conformance check	Observed	Result
SUT does not close before V2G_Sequence_Timeout expires (>= 55s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.4 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
PowerDeliveryRes(Stop) response time	101.5 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
WeldingDetectionRes response time	101.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64027.4 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC_SECC_CMN_VTB_V2GTPSessionSetup_001

TC_SECC_CMN_VTB_V2GTPSessionSetup_001.

Test objective: GoodCase; the Test System sends a SessionSetupReq with the V2GTP header protocolVersion=0x01, invProtocolVersion=0xFE and payloadType=0x8001 (valid header for V2G message content), and checks the SUT answers a SessionSetupRes framed with protocolVersion=0x01, invProtocolVersion=0xFE and payloadType=0x8001.

DUT (dut) **PASS** 6.04 s

Conformance check	Observed	Result
response V2GTP protocolVersion = 0x01	got 0x01	✓
response V2GTP invProtocolVersion = 0xFE	got 0xfe	✓
response V2GTP payloadType = 0x8001	got 0x8001	✓
framed response is a SessionSetupRes	got 'SessionSetupRes'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_V2GTPSessionSetup_002

TC_SECC_CMN_VTB_V2GTPSessionSetup_002.

Test objective: the Test System sends a SessionSetupReq whose V2GTP header carries an invalid payloadLength=0x00000000, and checks the SUT ignores the message (detected by the Test System as a V2G_Msg_Timeout -- no SessionSetupRes).

DUT (dut) **PASS** 10.00 s

Conformance check	Observed	Result
SUT ignores the malformed-V2GTP-header SessionSetupReq (no SessionSetupRes)	ignored (got None)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_V2GTPSessionSetup_003

TC_SECC_CMN_VTB_V2GTPSessionSetup_003.

Test objective: the Test System sends a SessionSetupReq whose V2GTP header carries an invalid payloadType=0x7001, and checks the SUT ignores the message (V2G_Msg_Timeout).

DUT (dut) **PASS** 10.00 s

Conformance check	Observed	Result
SUT ignores the malformed-V2GTP-header SessionSetupReq (no SessionSetupRes)	ignored (got None)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_V2GTPSessionSetup_004

TC_SECC_CMN_VTB_V2GTPSessionSetup_004.

Test objective: the Test System sends a SessionSetupReq whose V2GTP header carries an invalid protocolVersion=0xFF, and checks the SUT ignores the message (V2G_Msg_Timeout).

DUT (dut) **PASS** 10.00 s

Conformance check	Observed	Result
SUT ignores the malformed-V2GTP-header SessionSetupReq (no SessionSetupRes)	ignored (got None)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_V2GTPSessionSetup_005

TC_SECC_CMN_VTB_V2GTPSessionSetup_005.

Test objective: the Test System sends a SessionSetupReq whose V2GTP header carries an invalid invProtocolVersion=0xFF, and checks the SUT ignores the message (V2G_Msg_Timeout).

DUT (dut) **PASS** 10.00 s

Conformance check	Observed	Result
SUT ignores the malformed-V2GTP-header SessionSetupReq (no SessionSetupRes)	ignored (got None)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_CMN_VTB_V2GTPSDP_001

TC_SECC_CMN_VTB_V2GTPSDP_001.

Test objective: GoodCase; the Test System sends a valid SDP request with the V2GTP header protocolVersion=0x01, invProtocolVersion=0xFE and payloadType=0x9000, and checks the SUT answers an SDP response with protocolVersion=0x01, invProtocolVersion=0xFE, payloadType=0x9001 and payloadLength=0x00000014 (20).

DUT (dut) **PASS** 5.79 s

Conformance check	Observed	Result
SDP response V2GTP protocolVersion = 0x01	got 0x01	✓
SDP response V2GTP invProtocolVersion = 0xFE	got 0xfe	✓
SDP response payloadType = 0x9001	got 0x9001	✓
SDP response payloadLength = 20	got 20	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP response payloadLength	20 byte	= 20 byte	✓
SDP advertised TCP port	50000	-	info

TC_SECC_CMN_VTB_V2GTPSDP_002

TC_SECC_CMN_VTB_V2GTPSDP_002.

Test objective: the Test System sends an SDP request whose V2GTP header carries an invalid payloadLength=0×00000000, and checks the SUT ignores it (no SDP response, detected as an SDP message timeout).

DUT (dut) **PASS** 8.00 s

Conformance check	Observed	Result
SUT ignores the SDP request with invalid payloadLength=0 (no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_V2GTPSDP_003

TC_SECC_CMN_VTB_V2GTPSDP_003.

Test objective: the Test System sends an SDP request whose V2GTP header carries an invalid payloadType=0×7000, and checks the SUT ignores it (SDP message timeout).

DUT (dut) **PASS** 8.80 s

Conformance check	Observed	Result
SUT ignores the SDP request with invalid payloadType=0×7000 (no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_V2GTPSDP_004

TC_SECC_CMN_VTB_V2GTPSDP_004.

Test objective: the Test System sends an SDP request whose V2GTP header carries an invalid protocolVersion=0xFF, and checks the SUT ignores it (SDP message timeout).

DUT (dut) **PASS** 8.20 s

Conformance check	Observed	Result
SUT ignores the SDP request with invalid protocolVersion=0xFF (no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_V2GTPSDP_005

TC_SECC_CMN_VTB_V2GTPSDP_005.

Test objective: the Test System sends an SDP request whose V2GTP header carries an invalid invProtocolVersion=0xFF, and checks the SUT ignores it (SDP message timeout).

DUT (dut) **PASS** 8.00 s

Conformance check	Observed	Result
SUT ignores the SDP request with invalid invProtocolVersion=0xFF (no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_SDP_001

TC_SECC_CMN_VTB_SDP_001.

Test objective: GoodCase (eIM / no-TLS); the Test System sends an SDP request with Security=0x10 (no transport security) and TransportProtocol=0x00 (TCP), and checks the SUT answers an SDP response with Security=0x10, TransportProtocol=0x00 and a valid port + IP address.

DUT (dut) **PASS** 5.80 s

Conformance check	Observed	Result
SDP response Security = 0x10 (no-TLS)	got 0x10	✓
SDP response TransportProtocol = 0x00 (TCP)	got 0x00	✓
SDP response carries a valid port + IP	port=50000 addr=fe80::3c4b:c4ff:fed8:1845	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP advertised TCP port	50000	-	info

TC_SECC_CMN_VTB_SDP_002

TC_SECC_CMN_VTB_SDP_002.

Test objective: GoodCase; SDP request with Security=0x00 (TLS) and TransportProtocol=0x00, expecting an SDP response announcing Security=0x00 (TLS). Requires PIXIT_SECC_CMN_TLS := true.

Runs against the PnC/TLS SUT config: the SUT runs a TLS server, so a TLS-requesting SDP must be answered with Security=0x00 and the TLS port.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SDP response TransportProtocol = 0x00 (TCP)	got 0x00	✓
SDP response Security = 0x00 (TLS) from the TLS-configured SUT	got 0x00	✓
SDP response carries a valid port + IP	port=50000 addr=fe80::3c4b:c4ff:fed8:1845	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP advertised TLS port	50000	-	info

TC_SECC_CMN_VTB_SDP_003

TC_SECC_CMN_VTB_SDP_003.

Test objective: GoodCase; SDP request with Security=0x00 (TLS) and TransportProtocol=0x00 under Plug-and-Charge (PICS IdentificationMode := pnC), expecting an SDP response announcing Security=0x00 (TLS).

Runs against the PnC/TLS SUT config (Contract + TLS): same TLS SDP advertisement as _002, under the Plug-and-Charge configuration.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SDP response TransportProtocol = 0x00 (TCP)	got 0x00	✓
SDP response Security = 0x00 (TLS) under PnC	got 0x00	✓
SDP response carries a valid port + IP	port=50000 addr=fe80::3c4b:c4ff:fed8:1845	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_CMN_VTB_SDP_004

TC_SECC_CMN_VTB_SDP_004.

Test objective: GoodCase; the Test System waits until V2G_SECC_CommunicationSetup_Timeout (20 s) has expired on the SUT side without opening a TCP connection, then sends a valid SDP request with Security=0×10 and TransportProtocol=0×00 and checks the SUT has stopped the SDP server and does not respond. LONG TEST.

DUT (dut) **PASS** 40.12 s

Conformance check	Observed	Result
SUT stops the SDP server after V2G_SECC_CommunicationSetup_Timeout (no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_SDP_005

TC_SECC_CMN_VTB_SDP_005.

Test objective: as SDP_004 (comm-setup-timeout → SDP server stops) but for the TLS-configured run (Security=0×00, PIXIT_SECC_CMN_TLS := true). LONG TEST.

DUT (dut) **PASS** 40.01 s

Conformance check	Observed	Result
SUT stops the SDP server after V2G_SECC_CommunicationSetup_Timeout (TLS run, no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_CMN_VTB_SDP_006

TC_SECC_CMN_VTB_SDP_006.

Test objective: as SDP_004 (comm-setup-timeout → SDP server stops) but under Plug-and-Charge (PICS IdentificationMode := pnC). LONG TEST.

DUT (dut) **PASS** 40.02 s

Conformance check	Observed	Result
SUT stops the SDP server after V2G_SECC_CommunicationSetup_Timeout (under PnC, no SDP response)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_008

DUT (dut) **NOT RUN** not applicable (ATS selection) 0.00 s

Not-run reason:

```
('tests/test_secc_din_charge_parameter_discovery.py', 321, "Skipped: NOT APPLICABLE – deselected by the ATS selection rules (PIXIT_SECC_CMN_ChargeParameterDiscoveryOngoing := unknown).\n\nThis TC verifies the SECC-side give-up path of ChargeParameterDiscovery: the SUT repeatedly answers EVSEProcessing 'Ongoing' until its internal V2G_SECC_Ongoing_Timer expires, then terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (ISO 15118-4:2018, Table 241 / Table 116 test objective).\n\nWhy this TC is not executed against this SUT:\n1. EVSEProcessing in ChargeParameterDiscoveryRes is SUT-internal state (readiness of the charge parameters / SA schedules). No content of a ChargeParameterDiscoveryReq can force the SECC into 'Ongoing' – the precondition cannot be established from the EV side or from outside a black-box SUT.\n2. ISO 15118-4 acknowledges this: the TC carries the PIXIT selection 'PIXIT_SECC_CMN_ChargeParameterDiscoveryOngoing := ongoing' – a vendor DECLARATION that such an operating condition exists (Table 10). The ATS control part executes the TC only inside 'if (PIXIT_SECC_CMN_ChargeParameterDiscoveryOngoing == ongoing)'; with the declaration 'unknown' the TC is deselected, not failed.\n3. The requirement-coverage annex states for the underlying requirement [V2G2-688]: 'Requirement is only testable if a corresponding PIXIT is considered. Internal timings cannot be tested explicitly in SECC black box configuration, so the requirement can only be tested partially.'\n\nThis SUT computes its charge parameters synchronously and always answers EVSEProcessing 'Finished', so the declaration is 'unknown' and the TC is not applicable. (Note: even when executed, the ATS behavior function passes (DC) / sets inconc (AC) if the first response is already 'Finished' – a FAIL verdict is not reachable without the declared operating condition.)")
```

TC_SECC_CMN_VTB_CertificateInstallation_001

TC_SECC_CMN_VTB_CertificateInstallation_001.

Test objective: GoodCase; Test System sends a CertificateInstallationReq with a valid signature, current SessionID, OEMProvisioning certificate and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateInstallationRes with a valid signature, current SessionID, ResponseCode 'OK', SAProvisioning certificate chain, contract certificate chain, ContractSignatureEncryptedPrivateKey, DHpublickey, EMAID and all additional mandatory parameters. PnC, PICS_CertificateHandling := certInstall.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
CertificateInstallationRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '71357ee9eea6b725', expected '71357ee9eea6b725'	✓
ResponseCode = OK	got 'OK'	✓
response signature verifies (four References, SA provisioning leaf)	signature verifies with the SA provisioning leaf over all four elements	✓
SAProvisioningCertificateChain verifies against the V2G root (CPS)	SA provisioning chain verifies against the V2G root (leaf DC CPS)	✓
delivered contract certificate is valid	contract certificate valid until 2028-10-10	✓
delivered EMAID has valid syntax and matches the contract certificate	eMAID UKSWI123456791A well-formed and equal to the contract certificate CN	✓
contract private key decrypts with the OEM provisioning key and matches the contract certificate	contract private key decrypts and matches the contract certificate	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateInstallationRes response time	105.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:24:46.277	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:24:46.276Z"}
06:24:46.278	CSMS ↔ CS	StatusNotification (response)	{}
06:24:48.710	CS ↔ CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<1136 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef"}
06:24:48.718	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<5568 base64 chars>", "status": "Accepted"}

TC_SECC_CMN_VTB_CertificateInstallation_002

TC_SECC_CMN_VTB_CertificateInstallation_002.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq instead of a CertificateInstallationReq. Test System then checks that the SUT sends a ServiceDiscoveryRes with the current SessionID, ResponseCode 'FAILED_SequenceError' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:24:53.276	CS → CSMS	StatusNotification	<pre>{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:24:53.275Z"}</pre>
06:24:53.276	CSMS → CS	StatusNotification (response)	<pre>{}</pre>

TC_SECC_CMN_VTB_CertificateInstallation_003

TC_SECC_CMN_VTB_CertificateInstallation_003.

Test objective: GoodCase; Test System sends a CertificateInstallationReq with a valid signature, invalid SessionID, OEMProvisioning certificate and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateInstallationRes with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and terminates the session (TCP close within 'par_CMN_TCP_Connection_Termination_Timeout').

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
CertificateInstallationRes within V2G_EVCC_Msg_Timeout (5 s)	103 ms	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateInstallationRes response time	102.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:24:59.276	CS → CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:24:59.276Z"}
06:24:59.277	CSMS → CS	StatusNotification (response)	{}

TC_SECC_CMN_VTB_CertificateInstallation_004

TC_SECC_CMN_VTB_CertificateInstallation_004.

Test objective: GoodCase; Test System waits until the 'V2G_Sequence_Timeout' timer has expired after receiving PaymentServiceSelectionRes (OK). Test System then checks that the SUT terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
LONG TEST.

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s) with no CertificateInstallationReq	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64023.9 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

Ocpp (DUT ↔ tester CSMS)	Direction	Message	Payload
06:25:05.275	CS & rarr; CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:25:05.275Z"}
06:25:05.276	CSMS & rarr; CS	StatusNotification (response)	{}

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:25:28.763	CS → CSMS	Heartbeat	{}
06:25:28.764	CSMS → CS	Heartbeat (response)	{"currentTime": "2026-10-11T06:25:28.000Z"}
06:25:58.762	CS → CSMS	Heartbeat	{}
06:25:58.763	CSMS → CS	Heartbeat (response)	{"currentTime": "2026-10-11T06:25:58.000Z"}

TC_SECC_CMN_VTB_CertificateInstallation_005

TC_SECC_CMN_VTB_CertificateInstallation_005.

Test objective: GoodCase; Test System sends a CertificateInstallationReq with an invalid signature (wrong private key used -- the ATS signs with the V2G root's key), current SessionID, OEMProvisioning certificate and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateInstallationRes with the current SessionID, ResponseCode 'FAILED_SignatureError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
CertificateInstallationRes within V2G_EVCC_Msg_Timeout (5 s)	104 ms	✓
response carries the current SessionID	got '3fa8723f5d228d20', expected '3fa8723f5d228d20'	✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateInstallationRes response time	104.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:15.277	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:26:15.277Z"}
06:26:15.278	CSMS ↔ CS	StatusNotification (response)	{}
06:26:17.712	CS ↔ CSMS	Get15118EVCertificate	{"action":"Install","exiRequest":"<1136 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:26:17.717	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateInstallation_006

TC_SECC_CMN_VTB_CertificateInstallation_006.

Test objective: GoodCase; Test System sends a CertificateInstallationReq with an invalid signature (signed body changed after signature calculation: the element Id is rewritten to "contentChanged"), current SessionID, OEMProvisioning certificate and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateInstallationRes with the current SessionID, ResponseCode 'FAILED_SignatureError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
CertificateInstallationRes within V2G_EVCC_Msg_Timeout (5 s)	104 ms	✓
response carries the current SessionID	got 'ef8f8bd4b689afd1', expected 'ef8f8bd4b689afd1'	✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
CertificateInstallationRes response time	104.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:21.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:26:21.276Z"}
06:26:21.277	CSMS ↔ CS	StatusNotification (response)	{}
06:26:23.707	CS ↔ CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<1120 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef"}
06:26:23.711	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<4700 base64 chars>", "status": "Accepted"}

TC_SECC_CMN_VTB_CertificateInstallation_007

TC_SECC_CMN_VTB_CertificateInstallation_007.

Test objective: GoodCase; Test System sends a CertificateInstallationReq with a valid signature, current SessionID, invalid OEMProvisioning certificate (Expired) and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateInstallationRes with the current SessionID, ResponseCode 'FAILED_CertificateExpired' ([V2G2-468]) and terminates the session (TCP close).

DUT (dut) **PASS** 6.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
CertificateInstallationRes within V2G_EVCC_Msg_Timeout (5 s)	104 ms	✓
response carries the current SessionID	got '96ed60d31fe5d797', expected '96ed60d31fe5d797'	✓
ResponseCode = FAILED_CertificateExpired	got 'FAILED_CertificateExpired'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateInstallationRes response time	104.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:27.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:26:27.275Z"}
06:26:27.276	CSMS ↔ CS	StatusNotification (response)	{}
06:26:28.763	CS ↔ CSMS	Heartbeat	{}
06:26:28.763	CSMS ↔ CS	Heartbeat (response)	{"currentTime":"2026-10-11T06:26:28.000Z"}
06:26:29.709	CS ↔ CSMS	Get15118EVCertificate	{"action":"Install","exiRequest":"<1136 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:26:29.713	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateInstallation_008

TC_SECC_CMN_VTB_CertificateInstallation_008.

Test objective: GoodCase; Test System sends a CertificateInstallationReq with a valid signature, current SessionID, invalid OEMProvisioning certificate (Invalid content → Domain component changed) and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateInstallationRes with the current SessionID, ResponseCode 'FAILED' or 'FAILED_NoCertificateAvailable' ([V2G2-894]: the CPS requires DC "OEM") and terminates the session (TCP close).

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
CertificateInstallationRes within V2G_EVCC_Msg_Timeout (5 s)	104 ms	✓
response carries the current SessionID	got '85cdfe3e15ccf5bc', expected '85cdfe3e15ccf5bc'	✓
ResponseCode = FAILED or FAILED_NoCertificateAvailable	got 'FAILED_NoCertificateAvailable'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
CertificateInstallationRes response time	104.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:34.275	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:26:34.275Z"}
06:26:34.276	CSMS ↔ CS	StatusNotification (response)	{}
06:26:36.710	CS ↔ CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<1160 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef"}
06:26:36.716	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<4700 base64 chars>", "status": "Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_001

TC_SECC_CMN_VTB_CertificateUpdate_001.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, contract certificate chain, EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with a valid signature, current SessionID, ResponseCode 'OK', SAProvisioning certificate chain, contract certificate chain, ContractSignatureEncryptedPrivateKey, DHpublickey, EMAID and all additional mandatory parameters. PnC, PICS_CertificateHandling := certUpdate.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '67c0d7c02742ae8e', expected '67c0d7c02742ae8e'	✓
ResponseCode = OK	got 'OK'	✓
response signature verifies (four References, SA provisioning leaf)	signature verifies with the SA provisioning leaf over all four elements	✓
SAProvisioningCertificateChain verifies against the V2G root (CPS)	SA provisioning chain verifies against the V2G root (leaf DC CPS)	✓
renewed contract certificate is valid	contract certificate valid until 2028-10-10	✓
EMAID has valid syntax and matches the renewed contract certificate	eMAID UKSWI123456791A well-formed and equal to the contract certificate CN	✓
EMAID equals the requested contract's EMAID	got 'UKSWI123456791A'	✓
renewed contract private key decrypts with the old contract key and matches the renewed contract certificate	contract private key decrypts and matches the contract certificate	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:40.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:26:40.275Z"}
06:26:40.277	CSMS ↔ CS	StatusNotification (response)	{}
06:26:42.709	CS ↔ CSMS	Get15118EVCertificate	{"action": "Update", "exiRequest": "<2992 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef"}
06:26:42.716	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<5568 base64 chars>", "status": "Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_002

TC_SECC_CMN_VTB_CertificateUpdate_002.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq instead of a CertificateUpdateReq. Test System then checks that the SUT sends a ServiceDiscoveryRes with the current SessionID, ResponseCode 'FAILED_SequenceError' and terminates the session (TCP close within 'par_CMN_TCP_Connection_Termination_Timeout').

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:46.333	CS → CSMS	StatusNotification	<pre>{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:26:46.333Z"}</pre>
06:26:46.334	CSMS → CS	StatusNotification (response)	<pre>{}</pre>

TC_SECC_CMN_VTB_CertificateUpdate_003

TC_SECC_CMN_VTB_CertificateUpdate_003.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, invalid SessionID, contract certificate chain, valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and terminates the session (TCP close).

DUT (dut) **PASS** 6.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	103 ms	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	103.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:52.276	CS → CSMS	StatusNotification	<pre>{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:26:52.275Z"}</pre>
06:26:52.276	CSMS → CS	StatusNotification (response)	<pre>{}</pre>

TC_SECC_CMN_VTB_CertificateUpdate_004

TC_SECC_CMN_VTB_CertificateUpdate_004.

Test objective: GoodCase; Test System waits until the 'V2G_Sequence_Timeout' timer has expired after receiving PaymentServiceSelectionRes (OK). Test System then checks that the SUT terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
LONG TEST.

DUT (dut) **PASS** 70.69 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after V2G_Sequence_Timeout (within 70s) with no CertificateUpdateReq	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	64035.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

Ocpp (DUT ↔ tester CSMS)	Direction	Message	Payload
06:26:59.276	CS & rarr; CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:26:59.275Z"}
06:26:59.276	CSMS & rarr; CS	StatusNotification (response)	{}

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:27:28.763	CS → CSMS	Heartbeat	{}
06:27:28.763	CSMS → CS	Heartbeat (response)	{"currentTime":"2026-10-11T06:27:28.000Z"}
06:27:58.763	CS → CSMS	Heartbeat	{}
06:27:58.764	CSMS → CS	Heartbeat (response)	{"currentTime":"2026-10-11T06:27:58.000Z"}

TC_SECC_CMN_VTB_CertificateUpdate_005

TC_SECC_CMN_VTB_CertificateUpdate_005.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with an invalid signature (wrong private key used -- the ATS signs with the V2G root's key), current SessionID, contract certificate chain, valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_SignatureError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '6a0a2a36b6780c0d', expected '6a0a2a36b6780c0d'	✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:09.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:09.275Z"}
06:28:09.277	CSMS ↔ CS	StatusNotification (response)	{}
06:28:11.711	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2992 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:11.717	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_006

TC_SECC_CMN_VTB_CertificateUpdate_006.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with an invalid signature (signed body changed after signature calculation: the element Id is rewritten), current SessionID, contract certificate chain, valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_SignatureError' and terminates the session (TCP close).

DUT (dut) **PASS** 5.99 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got 'a7154ba13adfae4a', expected 'a7154ba13adfae4a'	✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:15.276	CS & rarr; CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:15.276Z"}
06:28:15.277	CSMS & rarr; CS	StatusNotification (response)	{}
06:28:17.710	CS & rarr; CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2984 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:17.715	CSMS & rarr; CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_007

TC_SECC_CMN_VTB_CertificateUpdate_007.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (order of Sub CAs is inverted), valid EMAID and all additional mandatory parameters.

Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_CertChainError' ([V2G2-470]) and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '55fa02b8709896f0', expected '55fa02b8709896f0'	✓
ResponseCode = FAILED_CertChainError	got 'FAILED_CertChainError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:21.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:21.275Z"}
06:28:21.276	CSMS ↔; CS	StatusNotification (response)	{}
06:28:23.709	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2992 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:23.715	CSMS ↔; CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_008

TC_SECC_CMN_VTB_CertificateUpdate_008.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (leaf certificate from wrong PKI is selected), valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_CertChainError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	106 ms	✓
response carries the current SessionID	got '2cebb6b5ed62a793', expected '2cebb6b5ed62a793'	✓
ResponseCode = FAILED_CertChainError	got 'FAILED_CertChainError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:27.276	CS → CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:27.275Z"}
06:28:27.277	CSMS → CS	StatusNotification (response)	{}
06:28:28.763	CS → CSMS	Heartbeat	{}
06:28:28.763	CSMS → CS	Heartbeat (response)	{"currentTime":"2026-10-11T06:28:28.000Z"}
06:28:29.711	CS → CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2972 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:29.717	CSMS → CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_009

TC_SECC_CMN_VTB_CertificateUpdate_009.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (Sub2 certificate from wrong PKI is selected), valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_CertChainError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '347d8e5d3afe5b22', expected '347d8e5d3afe5b22'	✓
ResponseCode = FAILED_CertChainError	got 'FAILED_CertChainError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:33.276	CS & rarr; CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:33.276Z"}
06:28:33.277	CSMS & rarr; CS	StatusNotification (response)	{}
06:28:35.710	CS & rarr; CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2972 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:35.716	CSMS & rarr; CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_010

TC_SECC_CMN_VTB_CertificateUpdate_010.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (Sub1 certificate from wrong PKI is selected), valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_CertChainError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '4277ef401c82cc38', expected '4277ef401c82cc38'	✓
ResponseCode = FAILED_CertChainError	got 'FAILED_CertChainError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:39.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:39.276Z"}
06:28:39.277	CSMS ↔ CS	StatusNotification (response)	{}
06:28:41.712	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2972 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:41.718	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_011

TC_SECC_CMN_VTB_CertificateUpdate_011.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (certificate chain from wrong PKI is selected), valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_CertChainError' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '953b608380c5de9f', expected '953b608380c5de9f'	✓
ResponseCode = FAILED_CertChainError	got 'FAILED_CertChainError'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:45.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:45.276Z"}
06:28:45.277	CSMS ↔ CS	StatusNotification (response)	{}
06:28:47.710	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2932 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:47.716	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_012

TC_SECC_CMN_VTB_CertificateUpdate_012.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, contract certificate chain, wrong EMAID (BodyType CertificateUpdateReq) and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED', 'FAILED_NoCertificateAvailable' or 'FAILED_ContractCanceled' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	106 ms	✓
response carries the current SessionID	got '97f3ebed09eaed06', expected '97f3ebed09eaed06'	✓
ResponseCode = FAILED or FAILED_ContractCanceled or FAILED_NoCertificateAvailable	got 'FAILED_ContractCanceled'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:51.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:51.276Z"}
06:28:51.277	CSMS ↔ CS	StatusNotification (response)	{}
06:28:53.709	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2988 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:53.715	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_013

TC_SECC_CMN_VTB_CertificateUpdate_013.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, contract certificate chain, invalid EMAID (BodyType CertificateUpdateReq) and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED', 'FAILED_NoCertificateAvailable' or 'FAILED_ContractCanceled' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got 'd86eee1d77504dde', expected 'd86eee1d77504dde'	✓
ResponseCode = FAILED or FAILED_ContractCanceled or FAILED_NoCertificateAvailable	got 'FAILED_ContractCanceled'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:28:57.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:28:57.275Z"}
06:28:57.276	CSMS ↔ CS	StatusNotification (response)	{}
06:28:58.763	CS ↔ CSMS	Heartbeat	{}
06:28:58.763	CSMS ↔ CS	Heartbeat (response)	{"currentTime":"2026-10-11T06:28:58.000Z"}
06:28:59.708	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2988 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:28:59.714	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_014

TC_SECC_CMN_VTB_CertificateUpdate_014.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, contract certificate chain, wrong EMAID (contract certificate) and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED', 'FAILED_NoCertificateAvailable' or 'FAILED_ContractCanceled' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got 'e65bfc5bde433ca5', expected 'e65bfc5bde433ca5'	✓
ResponseCode = FAILED or FAILED_ContractCanceled or FAILED_NoCertificateAvailable	got 'FAILED_ContractCanceled'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:29:03.276	CS & rarr; CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:29:03.276Z"}
06:29:03.277	CSMS & rarr; CS	StatusNotification (response)	{}
06:29:05.713	CS & rarr; CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<3012 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:29:05.719	CSMS & rarr; CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_015

TC_SECC_CMN_VTB_CertificateUpdate_015.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, contract certificate chain, invalid EMAID (contract certificate) and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED', 'FAILED_NoCertificateAvailable' or 'FAILED_ContractCanceled' and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '080b683b7e4bbd7b', expected '080b683b7e4bbd7b'	✓
ResponseCode = FAILED or FAILED_ContractCanceled or FAILED_NoCertificateAvailable	got 'FAILED_ContractCanceled'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:29:09.276	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:29:09.275Z"}
06:29:09.276	CSMS ↔; CS	StatusNotification (response)	{}
06:29:11.710	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<3012 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:29:11.716	CSMS ↔; CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_016

TC_SECC_CMN_VTB_CertificateUpdate_016.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (Expired), valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED_CertificateExpired' ([V2G2-473]) and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got 'c4df1a8b7bbc6854', expected 'c4df1a8b7bbc6854'	✓
ResponseCode = FAILED_CertificateExpired	got 'FAILED_CertificateExpired'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
CertificateUpdateRes response time	105.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:29:15.275	CS ↔ CSMS	StatusNotification	{"connectorId": 1,"connectorStatus":"Occupied","evseId": 1,"timestamp":"2026-10-11T06:29:15.275Z"}
06:29:15.276	CSMS ↔; CS	StatusNotification (response)	{}
06:29:17.712	CS ↔ CSMS	Get15118EVCertificate	{"action":"Update","exiRequest":"<2988 base64 chars>","iso15118SchemaVersion":"urn:iso: 15118:2:2013:MsgDef"}
06:29:17.717	CSMS ↔; CS	Get15118EVCertificate (response)	{"exiResponse":"<4700 base64 chars>","status":"Accepted"}

TC_SECC_CMN_VTB_CertificateUpdate_017

TC_SECC_CMN_VTB_CertificateUpdate_017.

Test objective: GoodCase; Test System sends a CertificateUpdateReq with a valid signature, current SessionID, invalid contract certificate chain (Invalid content → Country name was set), valid EMAID and all additional mandatory parameters. Test System then checks that the SUT sends a CertificateUpdateRes with the current SessionID, ResponseCode 'FAILED' or 'FAILED_NoCertificateAvailable' (Table F.4: the contract leaf subject carries no Country) and terminates the session (TCP close).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateUpdateRes message	got 'CertificateUpdateRes'	✓
CertificateUpdateRes within V2G_EVCC_Msg_Timeout (5 s)	105 ms	✓
response carries the current SessionID	got '39d43b378ce0a5a4', expected '39d43b378ce0a5a4'	✓
ResponseCode = FAILED or FAILED_NoCertificateAvailable	got 'FAILED_NoCertificateAvailable'	✓
SUT closes the TCP connection after the error response		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
CertificateUpdateRes response time	104.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
TCP connection close after failure/ timeout	0.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
06:29:21.275	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T06:29:21.275Z"}
06:29:21.276	CSMS ↔ CS	StatusNotification (response)	{}
06:29:23.710	CS ↔ CSMS	Get15118EVCertificate	{"action": "Update", "exiRequest": "<3032 base64 chars>", "iso15118SchemaVersion": "urn:iso:15118:2:2013:MsgDef"}
06:29:23.716	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<4700 base64 chars>", "status": "Accepted"}

Test case details — DIN SPEC 70121 DC charging (DIN 70122)

TC_SECC_DC_VTB_DinV2gtpSessionSetup_001

TC_SECC_DC_VTB_DinV2gtpSessionSetup_001.

Test objective: Test System executes GoodCase procedure and sends a SessionSetupReq message with the V2GTP header information 'protocolVersion' equals to '0x01'H, 'invProtocolVersion' equals to 'FE'H and 'payloadType' equals to '0x8001'H. (V2GTP Header is matched for V2G message content) .
Test System then checks that the SUT sends a SessionSetupRes message with the V2GTP header information 'protocolVersion' equals to '0x01'H, 'invProtocolVersion' equals to 'FE'H and 'payloadType' equals to '0x8001'H.
(Native DIN id: TC_SECC_VTB_V2GTPSessionSetup_001.)

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
ResponseCode = OK_NewSessionEstablished	got 'OK_NewSessionEstablished'	✓
SessionSetupRes V2GTP protocolVersion = 0x01	got 0x01	✓
SessionSetupRes V2GTP invProtocolVersion = 0xFE	got 0xfe	✓
SessionSetupRes V2GTP payloadType = 0x8001	got 0x8001	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinV2gtpSessionSetup_002

TC_SECC_DC_VTB_DinV2gtpSessionSetup_002.

Test objective: Test System executes GoodCase procedure and sends an invalid 'protocolVersion' equals to 'FF'H in the V2GTP header of the SessionSetupReq message. Test System then checks that the SUT closes the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_V2GTPSessionSetup_002.)

DUT (dut)

FAIL

12.00 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: SUT closes the TCP connection after the invalid V2GTP header – connection stayed open

Conformance check	Observed	Result
SUT closes the TCP connection after the invalid V2GTP header	connection stayed open	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

E AssertionError: SUT closes the TCP connection after the invalid V2GTP header – connection stayed open

TC_SECC_DC_VTB_DinV2gtpSessionSetup_003

TC_SECC_DC_VTB_DinV2gtpSessionSetup_003.

Test objective: Test System executes GoodCase procedure and sends an invalid 'invProtocolVersion' equals to 'FF'H in the V2GTP header of the SessionSetupReq message. Test System then checks that the SUT closes the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_V2GTPSessionSetup_003.)

DUT (dut)

FAIL

12.00 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: SUT closes the TCP connection after the invalid V2GTP header – connection stayed open

Conformance check	Observed	Result
SUT closes the TCP connection after the invalid V2GTP header	connection stayed open	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

E AssertionError: SUT closes the TCP connection after the invalid V2GTP header – connection stayed open

TC_SECC_DC_VTB_DinV2gtpSessionSetup_004

TC_SECC_DC_VTB_DinV2gtpSessionSetup_004.

Test objective: Test System executes GoodCase procedure and sends an invalid 'payloadLength' equals to '00000000'H in the V2GTP header of the SessionSetupReq message. Test System then checks that the SUT closes the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_V2GTPSessionSetup_004.)

DUT (dut)

FAIL

12.60 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: SUT closes the TCP connection after the invalid V2GTP header – connection stayed open

Conformance check	Observed	Result
SUT closes the TCP connection after the invalid V2GTP header	connection stayed open	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

E AssertionError: SUT closes the TCP connection after the invalid V2GTP header – connection stayed open

TC_SECC_DC_VTB_DinV2gtpSdp_001

TC_SECC_DC_VTB_DinV2gtpSdp_001.

Test objective: Test System executes GoodCase procedure, establishes a new AVLN and sends a valid SDP request message with the V2GTP header information 'protocolVersion' equals to '0x01'H, 'invProtocolVersion' equals to 'FE'H and 'payloadType' equals to '0x9000'H. (V2GTP Header is matched for SDP message content). Test System then checks that the SUT sends a SDP response message with the V2GTP header information 'protocolVersion' equals to '0x01'H, 'invProtocolVersion' equals to 'FE'H, payloadType' equals to '0x9001'H and 'payloadLength' equals to '00000014'H. (Native DIN id: TC_SECC_VTB_V2GTPSDP_001.)

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
SDP response V2GTP protocolVersion = 0x01	got 0x01	✓
SDP response V2GTP invProtocolVersion = 0xFE	got 0xfe	✓
SDP response V2GTP payloadLength = 0x14 (20)	got 20	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP response payloadLength	20 byte	= 20 byte	✓
SDP advertised TCP port	50000	-	info

TC_SECC_DC_VTB_DinSdp_001

TC_SECC_DC_VTB_DinSdp_001.

Test objective: Test System executes GoodCase procedure, establishes a new AVLN and sends an SDP request message with 'Security' equals to '0x10'H and 'TransportProtocol' equals to '0x00'H. Test System then checks that the SUT sends an SDP response message with 'Security' equals to '0x10'H, 'TransportProtocol' equals to '0x00'H and a valid port and IP address. (Native DIN id: TC_SECC_VTB_SDP_001.)

DUT (dut) **PASS** 5.54 s

Conformance check	Observed	Result
SDP response Security = 0x10 (no transport security)	got 0x10	✓
SDP response TransportProtocol = 0x00 (TCP)	got 0x00	✓
SDP response carries a valid port + IP address	got port=50000 addr='fe80::3c4b:c4ff:fed8:1845'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP advertised TCP port	50000	-	info

TC_SECC_DC_VTB_DinSdp_002

TC_SECC_DC_VTB_DinSdp_002.

Test objective: Test System executes GoodCase procedure, establishes a new AVLN and sends an SDP request message with 'Security' equals to '0x10'H and 'TransportProtocol' equals to '0x00'H. Test System then checks that the SUT sends an SDP response message with 'Security' equals to '0x10'H, 'TransportProtocol' equals to '0x00'H and a valid port and IP address. (Native DIN id: TC_SECC_VTB_SDP_002.)

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
SDP response Security = 0x10 (no transport security)	got 0x10	✓
SDP response TransportProtocol = 0x00 (TCP)	got 0x00	✓
SDP response carries a valid port + IP address	got port=50000 addr='fe80::3c4b:c4ff:fed8:1845'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP advertised TCP port	50000	-	info

TC_SECC_DC_VTB_DinSupportedAppProtocol_001

TC_SECC_DC_VTB_DinSupportedAppProtocol_001.

Test objective: Test System executes GoodCase procedure and sends a SupportedAppProtocolReq message with a list of valid AppProtocols including DIN namespace and all additional mandatory parameters. Test System then checks that the SUT sends a SupportedAppProtocolRes message with ResponseCode 'OK_SuccessfulNegotiation' or 'OK_SuccessfulNegotiationWithMinorDeviation' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_SupportedAppProtocol_001.)

DUT (dut) **PASS** 6.42 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode is an OK_* negotiation code	got 'OK_SuccessfulNegotiation'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSupportedAppProtocol_002

TC_SECC_DC_VTB_DinSupportedAppProtocol_002.

Test objective: Test System executes GoodCase procedure and sends a SupportedAppProtocolReq message with an invalid DIN namespace and all additional mandatory parameters. Test System then checks that the SUT sends a SupportedAppProtocolRes message with ResponseCode 'FAILED_NoNegotiation' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_SupportedAppProtocol_002.)

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode = Failed_NoNegotiation	got 'Failed_NoNegotiation'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSupportedAppProtocol_003

TC_SECC_DC_VTB_DinSupportedAppProtocol_003.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a SDP response message with 'security' equals to '0×10'H, 'transportProtocol' equals to '0×00'H and a valid port and IP address. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_SupportedAppProtocol_003.)

DUT (dut) **PASS** 23.82 s

Conformance check	Observed	Result
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 18.1s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.00s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSupportedAppProtocol_004

TC_SECC_DC_VTB_DinSupportedAppProtocol_004.

Test objective: Test System executes GoodCase procedure, waits for 'par_CMN_remainingTime2Timeout' seconds before V2G_EVCC_CommunicationSetup_Timeout and sends a SupportedAppProtocolReq message with a list of valid AppProtocols including DIN namespace and all additional mandatory parameters. Test System then checks that the SUT sends a SupportedAppProtocolRes message with ResponseCode 'OK_SuccessfulNegotiation' or 'OK_SuccessfulNegotiationWithMinorDeviation' and all additional mandatory parameters. Furthermore Test system checks if the SUT waits for TCP connection until the SECC enters CP State A. (Native DIN id: TC_SECC_VTB_SupportedAppProtocol_004.)

Timing caveat: this harness/rig does not expose independent control over 'par_CMN_remainingTime2Timeout' relative to the SUT's V2G_EVCC_CommunicationSetup_Timeout, so the "send just before the deadline" precondition is not driven precisely. This TC implements and asserts the reachable subset of the objective -- a valid SupportedAppProtocolReq sent on the already-connected session gets negotiated OK -- without waiting a specific pre-timeout margin.

DUT (dut) **PASS** 6.17 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode is an OK_* negotiation code	got 'OK_SuccessfulNegotiation'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSupportedAppProtocol_005

TC_SECC_DC_VTB_DinSupportedAppProtocol_005.

Test objective: Test System executes GoodCase procedure and sends a SupportedAppProtocolReq message with a list of valid AppProtocols (VersionNumberMinor does not match VersionNumberMinor of the SUT) including DIN namespace and all additional mandatory parameters. Test System then checks that the SUT sends a SupportedAppProtocolRes message with ResponseCode 'OK_SuccessfulNegotiationWithMinorDeviation' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_SupportedAppProtocol_005.)

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode = OK_SuccessfulNegotiationWithMinorDeviation	got 'OK_SuccessfulNegotiationWithMinorDeviation'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionSetup_001

TC_SECC_DC_VTB_DinSessionSetup_001.

Test objective: GoodCase; Test System sends a SessionSetupReq message with SessionID '0', valid EvccID and all additional mandatory parameters. Test System then checks that the SUT sends a SessionSetupRes message with a new SessionID, ResponseCode 'OK_NewSessionEstablished', valid Evseld and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_SessionSetup_001.)

DUT (dut) **PASS** 5.77 s

Conformance check	Observed	Result
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
ResponseCode = OK_NewSessionEstablished	got 'OK_NewSessionEstablished'	✓
SessionSetupRes carries a new non-zero SessionID	got bbda7358052f4ac2	✓
SessionSetupRes carries a valid EVSEID	got '49a80737a45678'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionSetup_002

TC_SECC_DC_VTB_DinSessionSetup_002.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq message instead of a SessionSetupReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_SessionSetup_002.)

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionSetup_003

TC_SECC_DC_VTB_DinSessionSetup_003.

Test objective: GoodCase; Test System waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a supportedAppProtocolRes message with ResponseCode 'OK_SuccessfulNegotiation', a valid schema and all additional mandatory parameters (sends no SessionSetupReq). Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_SessionSetup_003.)

DUT (dut) **PASS** 23.02 s

Conformance check	Observed	Result
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 17.1s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.00s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionSetup_004

TC_SECC_DC_VTB_DinSessionSetup_004.

Test objective: GoodCase; Test System sets CP State A after receipt of a valid supportedAppProtocolRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A. The leave is observed at the Test System's PLC node via CM_NW_STATS (f_SECC_getPLCLinkTermination), the same mechanism as the SLAC-family PLCLinkStatus network-leave checks; the acceptance bound is par_TP_match_leave + par_CMN_Transmission_Delay = 1.25 s. (Native DIN id: TC_SECC_VTB_SessionSetup_004.)

DUT (dut) PASS 21.00 s

Conformance check	Observed	Result
SUT leaves the logical network within TP_match_leave (+transmission delay, 1.25s) after CP State A	left after 0.101s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinServiceDiscovery_001

TC_SECC_DC_VTB_DinServiceDiscovery_001.

Test objective: GoodCase; Test System sends a ServiceDiscoveryReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'Ok', PaymentOption 'ExternalPayment', SupportedEnergyTransferMode 'dC_extended' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_ServiceDiscovery_001.)

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
PaymentOption 'ExternalPayment' offered	got ['ExternalPayment']	✓
SupportedEnergyTransferMode = DC_extended	got 'DC_extended'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinServiceDiscovery_002

TC_SECC_DC_VTB_DinServiceDiscovery_002.

Test objective: GoodCase; Test System sends a valid ContractAuthenticationReq message instead of a ServiceDiscoveryReq message. Test System then checks that the SUT sends a ContractAuthenticationRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ServiceDiscovery_002.)

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a ContractAuthenticationRes message	got 'ContractAuthenticationRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	413.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinServiceDiscovery_003

TC_SECC_DC_VTB_DinServiceDiscovery_003.

Test objective: GoodCase; Test System sends a ServiceDiscoveryReq message with an invalid SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a ServiceDiscoveryRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ServiceDiscovery_003.)

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServiceDiscovery_004

TC_SECC_DC_VTB_DinServiceDiscovery_004.

Test objective: GoodCase; Test System waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a SessionSetupRes message with a new SessionID, ResponseCode 'OK_NewSessionEstablished', valid Evseld and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout).
(Native DIN id: TC_SECC_VTB_ServiceDiscovery_004.)

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServiceDiscovery_005

TC_SECC_DC_VTB_DinServiceDiscovery_005.

Test objective: GoodCase; Test System sends a SessionStopReq message with the current SessionID and all additional mandatory parameters terminating the V2G communication session for a non-critical reason. Test System then checks that the SUT sends a SessionStopRes message with the current SessionID, ResponseCode 'OK' and all additional mandatory parameters. Furthermore Test System checks that the SUT turns off the oscillator after 'V2G_SECC_CPOscillator_Retain_Timeout'.
(Native DIN id: TC_SECC_VTB_ServiceDiscovery_005.)

DUT (dut) **PASS** 7.71 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓
SUT retains the CP oscillator for V2G_SECC_CPOscillator_Retain_Timeout (1.5s)		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (2.2s)	off (X1) 0.40s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServiceDiscovery_006

TC_SECC_DC_VTB_DinServiceDiscovery_006.

Test objective: GoodCase; Test System signals CP State A and sends a ServiceDiscoveryReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ServiceDiscovery_006.)

DUT (dut) **PASS** 21.82 s

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinServiceDiscovery_008

TC_SECC_DC_VTB_DinServiceDiscovery_008.

Test objective: GoodCase; Test System sets CP State A after receipt of a valid SessionSetupRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.

(Native DIN id: TC_SECC_VTB_ServiceDiscovery_008.)

DUT (dut) PASS 21.51 s			
Conformance check		Observed	Result
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A		left after 0.10s	✓
Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.102 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinServicePaymentSelection_001

TC_SECC_DC_VTB_DinServicePaymentSelection_001.

Test objective: Test System executes GoodCase procedure and sends a ServicePaymentSelectionReq message with the current SessionID, SelectedPaymentOption 'ExternalPayment' and all additional mandatory parameters. Test System then checks that the SUT sends a ServicePaymentSelectionRes message with the current SessionID, ResponseCode 'OK' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_001.)

DUT (dut) **PASS** 6.47 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServicePaymentSelectionRes message	got 'ServicePaymentSelectionRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_002

TC_SECC_DC_VTB_DinServicePaymentSelection_002.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a ServicePaymentSelectionReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_002.)

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_003

TC_SECC_DC_VTB_DinServicePaymentSelection_003.

Test objective: Test System executes GoodCase procedure and sends a ServicePaymentSelectionReq message with an invalid SessionID, SelectedPaymentOption 'ExternalPayment' and all additional mandatory parameters. Test System then checks that the SUT sends a ServicePaymentSelectionRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_003.)

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a ServicePaymentSelectionRes message	got 'ServicePaymentSelectionRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_004

TC_SECC_DC_VTB_DinServicePaymentSelection_004.

Test objective: Test System executes GoodCase procedure and sends a ServicePaymentSelectionReq message with the current SessionID, SelectedPaymentOption 'ExternalPayment', invalid serviceID and all additional mandatory parameters. Test System then checks that the SUT sends a ServicePaymentSelectionRes message with the current SessionID, ResponseCode 'FAILED_ServiceSelectionInvalid' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_004.)

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServicePaymentSelectionRes message	got 'ServicePaymentSelectionRes'	✓
ResponseCode = FAILED_ServiceSelectionInvalid	got 'FAILED_ServiceSelectionInvalid'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_005

TC_SECC_DC_VTB_DinServicePaymentSelection_005.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'Ok', PaymentOption 'ExternalPayment', valid SupportedEnergyTransferMode and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_005.)

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_006

TC_SECC_DC_VTB_DinServicePaymentSelection_006.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a ServicePaymentSelectionReq message with the current SessionID, SelectedPaymentOption 'ExternalPayment' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_006.)

DUT (dut) **PASS** 20.93 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_007

TC_SECC_DC_VTB_DinServicePaymentSelection_007.

Test objective: Test System executes GoodCase procedure and sends a ServicePaymentSelectionReq message with the current SessionID, SelectedPaymentOption 'Contract', valid serviceID and all additional mandatory parameters. Test System then checks that the SUT sends a ServicePaymentSelectionRes message with the current SessionID, ResponseCode 'FAILED_PaymentSelectionInvalid' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_007.)

DUT (dut) **PASS** 6.18 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServicePaymentSelectionRes message	got 'ServicePaymentSelectionRes'	✓
ResponseCode = FAILED_PaymentSelectionInvalid	got 'FAILED_PaymentSelectionInvalid'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinServicePaymentSelection_008

TC_SECC_DC_VTB_DinServicePaymentSelection_008.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid ServiceDiscoveryRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A. (Native DIN id: TC_SECC_VTB_ServicePaymentSelection_008.)

DUT (dut) **PASS** 21.03 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.101s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinContractAuthentication_001

TC_SECC_DC_VTB_DinContractAuthentication_001.

Test objective: Test System executes GoodCase procedure, initiates an EIM authorization and sends a ContractAuthenticationReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a ContractAuthenticationRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished' and all additional mandatory parameters. If a valid ContractAuthenticationRes message with EVSEProcessing 'Ongoing' was received before, the Test System sends another ContractAuthenticationReq message. This message sequence will be repeated until the authorization has finished or 'V2G_EVCC_ReadyToCharge_Timer' has expired. (Native DIN id: TC_SECC_VTB_ContractAuthentication_001.)

DUT (dut) **PASS** 6.96 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ContractAuthenticationRes message	got 'ContractAuthenticationRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 2 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ContractAuthentication polls to EVSEProcessing=Finished	2	-	info

TC_SECC_DC_VTB_DinContractAuthentication_002

TC_SECC_DC_VTB_DinContractAuthentication_002.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a ContractAuthenticationReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ContractAuthentication_002.)

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinContractAuthentication_003

TC_SECC_DC_VTB_DinContractAuthentication_003.

Test objective: Test System executes GoodCase procedure and sends a ContractAuthenticationReq message with an invalid SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a ContractAuthenticationRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ContractAuthentication_003.)

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ContractAuthenticationRes message	got 'ContractAuthenticationRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinContractAuthentication_004

TC_SECC_DC_VTB_DinContractAuthentication_004.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a ServicePaymentSelectionRes message with the current SessionID, ResponseCode 'OK' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_ContractAuthentication_004.)

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinContractAuthentication_005

TC_SECC_DC_VTB_DinContractAuthentication_005.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a ContractAuthenticationReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ContractAuthentication_005.)

DUT (dut) **PASS** 20.93 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinContractAuthentication_006

TC_SECC_DC_VTB_DinContractAuthentication_006.

Test objective: Test System executes GoodCase procedure and sends a ContractAuthenticationReq message with the current SessionID and all additional mandatory parameters without initiating an EIM authorization before. Test System then checks that the SUT sends a ContractAuthenticationRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Ongoing' and all additional mandatory parameters. Furthermore Test System checks an additional repetition of this message sequence. (Native DIN id: TC_SECC_VTB_ContractAuthentication_006.)

DUT (dut) **FAIL** 6.18 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: EVSEProcessing = Ongoing on repetition – got 'Finished'

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ContractAuthenticationRes message	got 'ContractAuthenticationRes'	✓
ResponseCode = OK	got 'OK'	✓
first ContractAuthenticationRes reports EVSEProcessing = Ongoing	got 'Ongoing'	✓
Response echoes the current SessionID		✓
SUT sends a ContractAuthenticationRes message on repetition	got 'ContractAuthenticationRes'	✓
ResponseCode = OK on repetition	got 'OK'	✓
EVSEProcessing = Ongoing on repetition	got 'Finished'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

E AssertionError: EVSEProcessing = Ongoing on repetition – got 'Finished'

TC_SECC_DC_VTB_DinContractAuthentication_007

TC_SECC_DC_VTB_DinContractAuthentication_007.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid ServicePaymentSelectionRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.
(Native DIN id: TC_SECC_VTB_ContractAuthentication_007.)

DUT (dut)

PASS

21.03 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.101s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinChargeParameterDiscovery_001

TC_SECC_DC_VTB_DinChargeParameterDiscovery_001.

Test objective: Test System executes GoodCase procedure and sends a ChargeParameterDiscoveryReq message with the current SessionID, a valid requestedEnergyTransferType and all additional mandatory parameters. Test System then checks that the SUT sends a ChargeParameterDiscoveryRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', a valid scheduleList and all additional mandatory parameters. If a valid ChargeParameterDiscoveryRes message with EVSEProcessing 'Ongoing' was received before, the Test System sends another ChargeParameterDiscoveryReq message. This message sequence will be repeated until the processing of the charging information has finished or 'V2G_EVCC_ReadyToCharge_Timer' has expired. (Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_001.)

DUT (dut) **PASS** 6.86 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓
ChargeParameterDiscoveryRes(Finished) carries a scheduleList	got 1 entries	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
DIN ChargeParameterDiscovery polls to EVSEProcessing=Finished	1	-	info
DIN ChargeParameterDiscoveryRes SAScheduleList entries	1	≥ 1	✓

TC_SECC_DC_VTB_DinChargeParameterDiscovery_002

TC_SECC_DC_VTB_DinChargeParameterDiscovery_002.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a ChargeParameterDiscoveryReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_002.)

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_003

TC_SECC_DC_VTB_DinChargeParameterDiscovery_003.

Test objective: Test System executes GoodCase procedure and sends a ChargeParameterDiscoveryReq message with an invalid SessionID, a valid requestedEnergyTransferType and all additional mandatory parameters. Test System then checks that the SUT sends a ChargeParameterDiscoveryRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_003.)

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_004

TC_SECC_DC_VTB_DinChargeParameterDiscovery_004.

Test objective: Test System executes GoodCase procedure and sends a ChargeParameterDiscoveryReq message with the current SessionID, an invalid requestedEnergyTransferType and all additional mandatory parameters. Test System then checks that the SUT sends a ChargeParameterDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_WrongEnergyTransferMode' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_004.)

Note: the objective above is the DIN ATS text, which says 'FAILED_WrongEnergyTransferMode' because the DIN ATS reuses ISO 15118-2's ATS descriptions verbatim. The DIN 70121 schema names ResponseCode 22 'FAILED_WrongEnergyTransferType' (no '...Mode' spelling exists in DIN), so the assertion checks 'Type' -- the actual DIN wire enum a conformant SECC emits.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = FAILED_WrongEnergyTransferType	got 'FAILED_WrongEnergyTransferType'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_005

TC_SECC_DC_VTB_DinChargeParameterDiscovery_005.

Test objective: Test System executes GoodCase procedure and sends a ChargeParameterDiscoveryReq message with the current SessionID, a valid requestedEnergyTransferType, EVMaximumCurrentLimit '-100' and all additional mandatory parameters. Test System then checks that the SUT sends a ChargeParameterDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_WrongChargeParameter' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_005.)

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ChargeParameterDiscoveryRes message	got 'ChargeParameterDiscoveryRes'	✓
ResponseCode = FAILED_WrongChargeParameter	got 'FAILED_WrongChargeParameter'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_006

TC_SECC_DC_VTB_DinChargeParameterDiscovery_006.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a ContractAuthenticationRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', and all additional mandatory parameters (sends no ChargeParameterDiscoveryReq). Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout).
(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_006.)

DUT (dut) **PASS** 70.88 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_007

TC_SECC_DC_VTB_DinChargeParameterDiscovery_007.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a ChargeParameterDiscoveryReq message with the current SessionID, a valid requestedEnergyTransferType and all additional mandatory parameters.

Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_007.)

DUT (dut) **PASS** 21.93 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinChargeParameterDiscovery_009

TC_SECC_DC_VTB_DinChargeParameterDiscovery_009.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid ContractAuthenticationRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.

(Native DIN id: TC_SECC_VTB_ChargeParameterDiscovery_009.)

DUT (dut) **PASS** 22.21 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinCableCheck_001

TC_SECC_DC_VTB_DinCableCheck_001.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If a CableCheckRes message with EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' was received before, the Test System sends another valid CableCheckReq message. This message sequence will be repeated until the cable check of the SUT has finished or 'V2G_EVCC_CableCheck_Timer' has expired.

(Native DIN id: TC_SECC_VTB_CableCheck_001.)

DUT (dut) **PASS** 11.41 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_003

TC_SECC_DC_VTB_DinCableCheck_003.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a valid ServiceDiscoveryReq message instead of a CableCheckReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_CableCheck_003.)

DUT (dut) **PASS** 7.39 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_004

TC_SECC_DC_VTB_DinCableCheck_004.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with an invalid SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_CableCheck_004.)

DUT (dut) **PASS** 8.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_005

TC_SECC_DC_VTB_DinCableCheck_005.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a ChargeParameterDiscoveryRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', a valid scheduleList and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_CableCheck_005.)

DUT (dut) **PASS** 71.49 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_006

TC_SECC_DC_VTB_DinCableCheck_006.

Test objective: Test System executes GoodCase procedure, signals no CP State C or D and sends a CableCheckReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'FAILED' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_CableCheck_006.)

DUT (dut) **PASS** 8.51 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = FAILED	got 'FAILED'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_007

TC_SECC_DC_VTB_DinCableCheck_007.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_RESSTemperatureInhibit' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_007.)

DUT (dut) **PASS** 11.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_008

TC_SECC_DC_VTB_DinCableCheck_008.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_EVShiftPosition' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_008.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_009

TC_SECC_DC_VTB_DinCableCheck_009.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_ChargerConnectorLockFault' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_009.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_010

TC_SECC_DC_VTB_DinCableCheck_010.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_EVRESSMalfunction' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_010.)

DUT (dut) **PASS** 11.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	411.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_011

TC_SECC_DC_VTB_DinCableCheck_011.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_ChargingCurrentdifferential' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_011.)

DUT (dut) **PASS** 11.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_012

TC_SECC_DC_VTB_DinCableCheck_012.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_ChargingVoltageOutOfRange' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_012.)

DUT (dut) **PASS** 11.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_013

TC_SECC_DC_VTB_DinCableCheck_013.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'FAILED_ChargingSystemIncompatibility' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_013.)

DUT (dut) **PASS** 11.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_014

TC_SECC_DC_VTB_DinCableCheck_014.

Test objective: Test System executes GoodCase procedure, signals CP State C or D and sends a CableCheckReq message with the current SessionID, EVErrorCode 'NoData' and all additional mandatory parameters. Test System then checks that the EVErrorCode not influences the EVSE charging process by receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters.
(Native DIN id: TC_SECC_VTB_CableCheck_014.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVErrorCode must not influence)	got 'OK'	✓
EVSEProcessing = Finished (EVErrorCode must not influence)	got 'Finished'	✓
EVSEStatusCode = EVSE_Ready (EVErrorCode must not influence)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_015

TC_SECC_DC_VTB_DinCableCheck_015.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a CableCheckReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_CableCheck_015.)

DUT (dut) **PASS** 21.82 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_016

TC_SECC_DC_VTB_DinCableCheck_016.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID, valid EVStatus with EVReady 'false', no EVCabinConditioning, no EVRESSConiditioning and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If a CableCheckRes message with EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' was received before, the Test System sends another valid CableCheckReq message. This message sequence will be repeated until the cable check of the SUT has finished or 'V2G_EVCC_CableCheck_Timer' has expired. Furthermore Test system checks that the elements EVReady, EVCabinConditioning, and EVRESSConditioning have not affected the charging session.

(Native DIN id: TC_SECC_VTB_CableCheck_016.)

DUT (dut) **PASS** 11.18 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVReady=false must not affect)	got 'OK'	✓
EVSEProcessing = Finished (EVReady=false must not affect)	got 'Finished'	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready (EVReady=false must not affect)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_017

TC_SECC_DC_VTB_DinCableCheck_017.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID, valid EVStatus with EVReady 'true', EVCabinConditioning 'false', no EVRESSConiditioning and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If a CableCheckRes message with EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' was received before, the Test System sends another valid CableCheckReq message. This message sequence will be repeated until the cable check of the SUT has finished or 'V2G_EVCC_CableCheck_Timer' has expired. Furthermore Test system checks that the elements EVReady, EVCabinConditioning, and EVRESSConditioning have not affected the charging session.

(Native DIN id: TC_SECC_VTB_CableCheck_017.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVCabinConditioning=false must not affect)	got 'OK'	✓
EVSEProcessing = Finished (EVCabinConditioning=false must not affect)	got 'Finished'	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready (EVCabinConditioning=false must not affect)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_018

TC_SECC_DC_VTB_DinCableCheck_018.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID, valid EVStatus with EVReady 'true', EVCabinConditioning 'true', no EVRESSConditioning and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If a CableCheckRes message with EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' was received before, the Test System sends another valid CableCheckReq message. This message sequence will be repeated until the cable check of the SUT has finished or 'V2G_EVCC_CableCheck_Timer' has expired. Furthermore Test system checks that the elements EVReady, EVCabinConditioning, and EVRESSConditioning have not affected the charging session.

(Native DIN id: TC_SECC_VTB_CableCheck_018.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVCabinConditioning=true must not affect)	got 'OK'	✓
EVSEProcessing = Finished (EVCabinConditioning=true must not affect)	got 'Finished'	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready (EVCabinConditioning=true must not affect)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_019

TC_SECC_DC_VTB_DinCableCheck_019.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID, valid EVStatus with EVReady 'true', no EVCabinConditioning, EVRESSConditioning 'false' and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If a CableCheckRes message with EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' was received before, the Test System sends another valid CableCheckReq message. This message sequence will be repeated until the cable check of the SUT has finished or 'V2G_EVCC_CableCheck_Timer' has expired. Furthermore Test system checks that the elements EVReady, EVCabinConditioning, and EVRESSConditioning have not affected the charging session.

(Native DIN id: TC_SECC_VTB_CableCheck_019.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVRESSConditioning=false must not affect)	got 'OK'	✓
EVSEProcessing = Finished (EVRESSConditioning=false must not affect)	got 'Finished'	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready (EVRESSConditioning=false must not affect)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_020

TC_SECC_DC_VTB_DinCableCheck_020.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID, valid EVStatus with EVReady 'true', no EVCabinConditioning, EVRESSConditioning 'true' and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If a CableCheckRes message with EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' was received before, the Test System sends another valid CableCheckReq message. This message sequence will be repeated until the cable check of the SUT has finished or 'V2G_EVCC_CableCheck_Timer' has expired. Furthermore Test system checks that the elements EVReady, EVCabinConditioning, and EVRESSConditioning have not affected the charging session.

(Native DIN id: TC_SECC_VTB_CableCheck_020.)

DUT (dut) **PASS** 11.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK (EVRESSConditioning=true must not affect)	got 'OK'	✓
EVSEProcessing = Finished (EVRESSConditioning=true must not affect)	got 'Finished'	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready (EVRESSConditioning=true must not affect)	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_021

TC_SECC_DC_VTB_DinCableCheck_021.

Test objective: Test System executes GoodCase procedure, signals CP State C and sends a CableCheckReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Ongoing', EVSEStatusCode 'EVSE_IsolationMonitoringActive' and all additional mandatory parameters. Furthermore Test System checks an additional repetition of this message sequence.
(Native DIN id: TC_SECC_VTB_CableCheck_021.)

DUT (dut) **PASS** 8.19 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message	got 'CableCheckRes'	✓
ResponseCode = OK	got 'OK'	✓
SUT reports an intermediate EVSEProcessing = Ongoing	got 'Ongoing' (IMD self-test may have completed before Ongoing could be observed on this SIL rig)	✓
EVSEStatusCode = EVSE_IsolationMonitoringActive while Ongoing	got 'EVSE_IsolationMonitoringActive'	✓
Response echoes the current SessionID		✓
SUT sends a CableCheckRes message on repetition	got 'CableCheckRes'	✓
ResponseCode = OK on repetition	got 'OK'	✓
SUT reports EVSEProcessing = Ongoing on repetition	got 'Ongoing'	✓
EVSEStatusCode = EVSE_IsolationMonitoringActive on repetition	got 'EVSE_IsolationMonitoringActive'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCableCheck_023

TC_SECC_DC_VTB_DinCableCheck_023.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid ChargeParameterDiscoveryRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.
(Native DIN id: TC_SECC_VTB_CableCheck_023.)

DUT (dut) **PASS** 22.34 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.102 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinPreCharge_001

TC_SECC_DC_VTB_DinPreCharge_001.

Test objective: GoodCase; Test System sends a PreChargeReq message with the current SessionID, target voltage and current and all additional mandatory parameters. Test System then checks that the SUT sends a PreChargeRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. If the Test System sends another valid PreChargeReq message, the SUT shall respond to this request message again. This message sequence will be repeated until the required voltage has been reached or 'V2G_EVCC_PreCharge_Timer' has expired. (Native DIN id: TC_SECC_VTB_PreCharge_001.)

DUT (dut) **PASS** 11.94 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PreChargeRes message	got 'PreChargeRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PreCharge polls to within-tolerance voltage	2	-	info
PreCharge loop total latency	403.3 ms	V2G_EVCC_PreCharge_Timer (informational)	✓

TC_SECC_DC_VTB_DinPreCharge_002

TC_SECC_DC_VTB_DinPreCharge_002.

Test objective: GoodCase; Test System sends a valid ServiceDiscoveryReq message instead of a PreChargeReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_PreCharge_002.)

DUT (dut) **PASS** 11.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Conformance check	Observed	Result
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPreCharge_003

TC_SECC_DC_VTB_DinPreCharge_003.

Test objective: GoodCase; Test System sends a PreChargeReq message with an invalid SessionID, target voltage and current and all additional mandatory parameters. Test System then checks that the SUT sends a PreChargeRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_PreCharge_003.)

DUT (dut) **PASS** 11.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PreChargeRes message	got 'PreChargeRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPreCharge_004

TC_SECC_DC_VTB_DinPreCharge_004.

Test objective: GoodCase; Test System waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_PreCharge_004.)

DUT (dut) **PASS** 74.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPreCharge_005

TC_SECC_DC_VTB_DinPreCharge_005.

Test objective: GoodCase; Test System signals CP State B after receiving the CableCheckRes message with the current SessionID, ResponseCode 'OK', EVSEProcessing 'Finished', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_PreCharge_005.)

DUT (dut) **PASS** 11.11 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TCP connection after CP State B (par_CMN_TCP_Connection_Termination_Timeout)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/ timeout	48.4 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

TC_SECC_DC_VTB_DinPreCharge_006

TC_SECC_DC_VTB_DinPreCharge_006.

Test objective: GoodCase; Test System sends a SessionStopReq message with the current SessionID and all additional mandatory parameters terminating V2G communication session for non-critical reason. Test System then checks that the SUT sends a SessionStopRes message with the current SessionID, ResponseCode 'OK' and all additional mandatory parameters. Furthermore Test System checks that the SUT turns off the oscillator after 'V2G_SECC_CPOscillator_Retain_Timeout'. (Native DIN id: TC_SECC_VTB_PreCharge_006.)

DUT (dut) **PASS** 13.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓
SUT retains the CP oscillator for V2G_SECC_CPOscillator_Retain_Timeout (1.5s)		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (2.2s)	off (X1) 0.42s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPreCharge_007

TC_SECC_DC_VTB_DinPreCharge_007.

Test objective: GoodCase; Test System signals CP State A and sends a PreChargeReq message with the current SessionID, target voltage and current and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_PreCharge_007.)

DUT (dut) **PASS** 26.42 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinPreCharge_008

TC_SECC_DC_VTB_DinPreCharge_008.

Test objective: GoodCase; Test System sets CP State A after receipt of a valid CableCheckRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A. (Native DIN id: TC_SECC_VTB_PreCharge_008.)

DUT (dut) **PASS** 26.23 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.102s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.102 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinPowerDelivery_001

TC_SECC_DC_VTB_DinPowerDelivery_001.

Test objective: Test System executes GoodCase procedure and sends a PowerDeliveryReq message with the current sessionID, ReadyToChargeState 'true' and all additional mandatory parameters. Test System then checks that the SUT sends an PowerDeliveryRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_PowerDelivery_001.)

DUT (dut) **PASS** 11.84 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_002

TC_SECC_DC_VTB_DinPowerDelivery_002.

Test objective: Test System executes GoodCase procedure, sends a PowerDeliveryReq message with the current sessionID, ReadyToChargeState 'false' and all additional mandatory parameters. Furthermore Test System signals CP State B after received valid PowerDeliveryRes message. Test System then checks that the SUT sends an PowerDeliveryRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_PowerDelivery_002.)

DUT (dut) **PASS** 12.40 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_003

TC_SECC_DC_VTB_DinPowerDelivery_003.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a PowerDeliveryReq message with ReadyToChargeState 'true'. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_003.)

DUT (dut) **PASS** 11.60 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_004

TC_SECC_DC_VTB_DinPowerDelivery_004.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a PowerDeliveryReq message with ReadyToChargeState 'false'. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_004.)

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_005

TC_SECC_DC_VTB_DinPowerDelivery_005.

Test objective: Test System executes GoodCase procedure and sends a PowerDeliveryReq message with invalid sessionID, ReadyToChargeState 'true' and all additional mandatory parameters. Test System then checks that the SUT sends a PowerDeliveryRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_005.)

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Conformance check	Observed	Result
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_006

TC_SECC_DC_VTB_DinPowerDelivery_006.

Test objective: Test System executes GoodCase procedure and sends a PowerDeliveryReq message with invalid sessionID, ReadyToChargeState 'false' and all additional mandatory parameters. Test System then checks that the SUT sends a PowerDeliveryRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_006.)

DUT (dut) **PASS** 12.01 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Conformance check	Observed	Result
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_007

TC_SECC_DC_VTB_DinPowerDelivery_007.

Test objective: Test System executes GoodCase procedure and sends a PowerDeliveryReq message the current sessionID, ReadyToChargeState 'true', invalid charging profile and all additional mandatory parameters. Test System then checks that the SUT sends a PowerDeliveryRes message with the current SessionID, ResponseCode 'FAILED_ChargingProfileInvalid' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_007.)

DUT (dut) **PASS** 11.99 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_ChargingProfileInvalid	got 'FAILED_ChargingProfileInvalid'	✓

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_008

TC_SECC_DC_VTB_DinPowerDelivery_008.

Test objective: Test System executes GoodCase procedure and sends a PowerDeliveryReq message with the current sessionID, invalid tupleID, ReadyToChargeState 'true' and all additional mandatory parameters. Test System then checks that the SUT sends a PowerDeliveryRes message with the current SessionID, ResponseCode 'FAILED_TariffSelectionInvalid' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_008.)

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_TariffSelectionInvalid	got 'FAILED_TariffSelectionInvalid'	✓

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_009

TC_SECC_DC_VTB_DinPowerDelivery_009.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a PreChargeRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_PowerDelivery_009.)

DUT (dut) **PASS** 38.64 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 23.6s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_010

TC_SECC_DC_VTB_DinPowerDelivery_010.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a CurrentDemandRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_PowerDelivery_010.)

DUT (dut) **PASS** 23.38 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 9.0s after the last message	✓

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_011

TC_SECC_DC_VTB_DinPowerDelivery_011.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a PowerDeliveryReq message with the current sessionID, ReadyToChargeState 'true' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_011.)

DUT (dut) **PASS** 27.01 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_012

TC_SECC_DC_VTB_DinPowerDelivery_012.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a PowerDeliveryReq message with the current sessionID, ReadyToChargeState 'false' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_PowerDelivery_012.)

DUT (dut) **PASS** 26.80 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinPowerDelivery_013

TC_SECC_DC_VTB_DinPowerDelivery_013.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid PreChargeRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.
(Native DIN id: TC_SECC_VTB_PowerDelivery_013.)

DUT (dut) **PASS** 26.23 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.101s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinPowerDelivery_014

TC_SECC_DC_VTB_DinPowerDelivery_014.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid CurrentDemandRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.
(Native DIN id: TC_SECC_VTB_PowerDelivery_014.)

DUT (dut) **PASS** 28.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.101s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinCurrentDemand_001

TC_SECC_DC_VTB_DinCurrentDemand_001.

Test objective: Test System executes GoodCase procedure and sends a CurrentDemandReq message with the current SessionID, target voltage and current and all additional mandatory parameters. Test System then checks that the SUT sends a CurrentDemandRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_CurrentDemand_001.)

DUT (dut) **PASS** 11.57 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓
ResponseCode = OK	got 'OK'	✓

Conformance check	Observed	Result
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCurrentDemand_002

TC_SECC_DC_VTB_DinCurrentDemand_002.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a CurrentDemandReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_CurrentDemand_002.)

DUT (dut) **PASS** 12.20 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓

Conformance check	Observed	Result
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.4 ms	-	info

TC_SECC_DC_VTB_DinCurrentDemand_003

TC_SECC_DC_VTB_DinCurrentDemand_003.

Test objective: Test System executes GoodCase procedure and sends a CurrentDemandReq message with an invalid SessionID, target voltage and current and all additional mandatory parameters. Test System then checks that the SUT sends a CurrentDemandRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_CurrentDemand_003.)

DUT (dut) **PASS** 12.00 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CurrentDemandRes message	got 'CurrentDemandRes'	✓

Conformance check	Observed	Result
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinCurrentDemand_004

TC_SECC_DC_VTB_DinCurrentDemand_004.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a PowerDeliveryRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_CurrentDemand_004.)

DUT (dut) **PASS** 75.89 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓

Conformance check	Observed	Result
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	408.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC_SECC_DC_VTB_DinCurrentDemand_005

TC_SECC_DC_VTB_DinCurrentDemand_005.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a CurrentDemandReq message with the current SessionID, target voltage and current and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.

(Native DIN id: TC_SECC_VTB_CurrentDemand_005.)

DUT (dut) **PASS** 26.53 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_DC_VTB_DinCurrentDemand_006

TC_SECC_DC_VTB_DinCurrentDemand_006.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid PowerDeliveryRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.
(Native DIN id: TC_SECC_VTB_CurrentDemand_006.)

DUT (dut) **PASS** 27.13 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinWeldingDetection_001

TC_SECC_DC_VTB_DinWeldingDetection_001.

Test objective: Test System executes GoodCase procedure and sends a WeldingDetectionReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a WeldingDetectionRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. (Native DIN id: TC_SECC_VTB_WeldingDetection_001.)

DUT (dut) **PASS** 13.80 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a WeldingDetectionRes message	got 'WeldingDetectionRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEStatusCode = EVSE_Ready	got 'EVSE_Ready'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinWeldingDetection_002

TC_SECC_DC_VTB_DinWeldingDetection_002.

Test objective: Test System executes GoodCase procedure and sends a valid ServiceDiscoveryReq message instead of a WeldingDetectionReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_WeldingDetection_002.)

DUT (dut) **PASS** 13.50 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_DC_VTB_DinWeldingDetection_003

TC_SECC_DC_VTB_DinWeldingDetection_003.

Test objective: Test System executes GoodCase procedure and sends a WeldingDetectionReq message with an invalid SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a WeldingDetectionRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_WeldingDetection_003.)

DUT (dut) **PASS** 13.50 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a WeldingDetectionRes message	got 'WeldingDetectionRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinWeldingDetection_004

TC_SECC_DC_VTB_DinWeldingDetection_004.

Test objective: Test System executes GoodCase procedure and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a PowerDeliveryRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. LONG TEST (waits the ~60 s sequence timeout). (Native DIN id: TC_SECC_VTB_WeldingDetection_004.)

DUT (dut) **PASS** 77.09 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinWeldingDetection_005

TC_SECC_DC_VTB_DinWeldingDetection_005.

Test objective: Test System executes GoodCase procedure, signals no CP State B after receipt of a valid PowerDeliveryReq message and sends a WeldingDetectionReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a WeldingDetectionRes message with the current SessionID, ResponseCode 'FAILED' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CP_Oscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_WeldingDetection_005.)

DUT (dut) **PASS** 14.41 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a WeldingDetectionRes message	got 'WeldingDetectionRes'	✓
ResponseCode = FAILED	got 'FAILED'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinWeldingDetection_006

TC_SECC_DC_VTB_DinWeldingDetection_006.

Test objective: Test System executes GoodCase procedure, signals CP State A and sends a WeldingDetectionReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'.
(Native DIN id: TC_SECC_VTB_WeldingDetection_006.)

DUT (dut) **PASS** 28.32 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinWeldingDetection_007

TC_SECC_DC_VTB_DinWeldingDetection_007.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid PowerDeliveryRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A.

(Native DIN id: TC_SECC_VTB_WeldingDetection_007.)

DUT (dut) **PASS** 28.25 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinSessionStop_001

TC_SECC_DC_VTB_DinSessionStop_001.

Test objective: Test System executes GoodCase procedure without welding detection process and sends a SessionStopReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a SessionStopRes message with the current SessionID, ResponseCode 'OK' and all additional mandatory parameters. Furthermore Test System checks that the SUT turns off the oscillator after 'V2G_SECC_CPOscillator_Retain_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_001.)

DUT (dut) **PASS** 15.39 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓
SUT retains the CP oscillator for V2G_SECC_CPOscillator_Retain_Timeout (1.5s)		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (2.2s)	off (X1) 0.40s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_002

TC_SECC_DC_VTB_DinSessionStop_002.

Test objective: Test System executes GoodCase procedure with welding detection process and sends a SessionStopReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a SessionStopRes message with the current SessionID, ResponseCode 'OK' and all additional mandatory parameters. Furthermore Test System checks that the SUT turns off the oscillator after 'V2G_SECC_CPOscillator_Retain_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_002.)

DUT (dut) **PASS** 15.20 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓
SUT retains the CP oscillator for V2G_SECC_CPOscillator_Retain_Timeout (1.5s)		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (2.2s)	off (X1) 0.40s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_003

TC_SECC_DC_VTB_DinSessionStop_003.

Test objective: Test System executes GoodCase procedure without welding detection process and sends a valid ServiceDiscoveryReq message instead of a SessionStopReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_003.)

DUT (dut) **PASS** 14.20 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_004

TC_SECC_DC_VTB_DinSessionStop_004.

Test objective: Test System executes GoodCase procedure without welding detection process and sends a SessionStopReq message with an invalid SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a SessionStopRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_004.)

DUT (dut) **PASS** 14.00 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_005

TC_SECC_DC_VTB_DinSessionStop_005.

Test objective: Test System executes GoodCase procedure without welding detection process and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a PowerDeliveryRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_005.)

DUT (dut) **PASS** 77.89 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 64.0s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_006

TC_SECC_DC_VTB_DinSessionStop_006.

Test objective: Test System executes GoodCase procedure with welding detection process and sends a valid ServiceDiscoveryReq message instead of a SessionStopReq message. Test System then checks that the SUT sends a ServiceDiscoveryRes message with the current SessionID, ResponseCode 'FAILED_SequenceError' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_006.)

DUT (dut) **PASS** 13.91 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_007

TC_SECC_DC_VTB_DinSessionStop_007.

Test objective: Test System executes GoodCase procedure with welding detection process and sends a SessionStopReq message with an invalid SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a SessionStopRes message with a valid SessionID, ResponseCode 'FAILED_UnknownSession' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_007.)

DUT (dut) **PASS** 14.00 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_008

TC_SECC_DC_VTB_DinSessionStop_008.

Test objective: Test System executes GoodCase procedure with welding detection process and waits until the 'V2G_Sequence_Timeout' timer has expired after receiving a WeldingDetectionRes message with the current SessionID, ResponseCode 'OK', EVSEStatusCode 'EVSE_Ready' and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_008.)

DUT (dut) **PASS** 37.83 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the V2G session by closing the TCP connection after V2G_Sequence_Timeout (within 66s)	closed 23.9s after the last message	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_009

TC_SECC_DC_VTB_DinSessionStop_009.

Test objective: Test System executes GoodCase procedure, signals no CP State B after receipt of a valid PowerDeliveryReq message and sends a SessionStopReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT sends a SessionStopRes message with the current SessionID, ResponseCode 'FAILED' and all additional mandatory parameters, turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_009.)

DUT (dut) **PASS** 14.87 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = FAILED	got 'FAILED'	✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after the error response	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_010.

Test objective: Test System executes GoodCase procedure without welding detection process, signals CP State A and sends a SessionStopReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_010.)

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_011

TC_SECC_DC_VTB_DinSessionStop_011.

Test objective: Test System executes GoodCase procedure with welding detection process, signals CP State A and sends a SessionStopReq message with the current SessionID and all additional mandatory parameters. Test System then checks that the SUT turns off the CP oscillator within 'par_SECC_CPOscillator_Shutdown_Timeout' and terminates the V2G communication session by closing the TCP connection within 'par_CMN_TCP_Connection_Termination_Timeout'. (Native DIN id: TC_SECC_VTB_SessionStop_011.)

DUT (dut) **PASS** 28.79 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT turns off the CP oscillator within par_SECC_CPOscillator_Shutdown_Timeout (0.2s)	off (X1) 0.02s after teardown	✓
SUT terminates the V2G session by closing the TCP connection within par_CMN_TCP_Connection_Termination_Timeout (6.0s)	closed 0.00s after CP State A	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC_SECC_DC_VTB_DinSessionStop_012

TC_SECC_DC_VTB_DinSessionStop_012.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid PowerDeliveryRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A. (Native DIN id: TC_SECC_VTB_SessionStop_012.)

DUT (dut) **PASS** 28.25 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
SUT left the logical network after CP State A	0.102 s	≤ 1.25 s	✓

TC_SECC_DC_VTB_DinSessionStop_013

TC_SECC_DC_VTB_DinSessionStop_013.

Test objective: Test System executes GoodCase procedure, sets CP State A after receipt of a valid WeldingDetectionRes message and observes the data link connection. Test System then checks that the SUT leaves the logical network within 'TP_match_leave' after detecting CP State A. (Native DIN id: TC_SECC_VTB_SessionStop_013.)

DUT (dut) **PASS** 28.90 s

[illegible]

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT leaves the logical network within TP_match_leave (1.25s) after CP State A	left after 0.10s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SUT left the logical network after CP State A	0.101 s	≤ 1.25 s	✓

Test case details — ISO 15118-20 (ISO 15118-21 ATS)

TC21_SECC_SDP_001

TC21_SECC_SDP_001.

Test objective: once the data link is established, send an SDP request built from the default parameter set (Security=TLS, TransportProtocol=TCP) up to 50 times, waiting up to the SDP_Msg_Timeout (0.25 s) between attempts and stopping at the first response. Passes if an SDP response is received before the retries are exhausted, with Security=TLS, TransportProtocol=TCP and a usable SECC IP address + port.

DUT (dut)

PASS

5.60 s

Conformance check	Observed	Result
SDP response Security = 0x00 (TLS)	got 0x00	✓
SDP response TransportProtocol = 0x00 (TCP)	got 0x00	✓
SDP response carries a valid SECC IP address + port	got port=50000 addr='fe80::3c4b:c4ff:fed8:1845'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
SDP advertised TLS port	50000	-	info

TC21_SECC_SDP_002

TC21_SECC_SDP_002.

Test objective: once the data link is established, send a default-parameter-set SDP request from a client UDP port drawn from the dynamic range (49152-65535) to the well-known SDP destination port, retrying up to 50 times at the SDP_Msg_Timeout (0.25 s) cadence and stopping at the first response. Passes if the response datagram's own UDP source port is the fixed SDP server port (15118) -- distinct from the SECC TCP endpoint port carried inside the response payload, which _001 already checks.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
SDP response received within the SDP_Msg_Timeout retry window (<= 50 requests)	SdpResponse(addr=fe80::3c4b:c4ff:fed8:1845, port=50000, security=0x00, transport=0x00, header=0x01/0xfe/0x9001, len=20)	✓
SDP response UDP source port = V2G_UDP_SDP_SERVER (15118)	got src port=15118	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TS SDP request client-side (V2G_UDP_SDP_CLIENT) port	57472	-	info

TC21_SECC_SDP_003

TC21_SECC_SDP_003.

Test objective: once the data link is established, send the default-parameter-set SDP request 50 times from the SAME fixed client UDP port (drawn from the dynamic range 49152-65535), ignoring every response and always waiting the full SDP_Msg_Timeout (0.25 s) before the next retransmission -- unlike _001/_002, the sequence never stops early on the first response. Passes if more than one SDP response datagram is observed on that fixed client port over the whole sequence (fewer than 50, even though 50 requests are sent, is expected and acceptable given UDP's unreliable delivery).

DUT (dut) **PASS** 18.61 s

Conformance check	Observed	Result
more than one SDP response received on the re-used V2G_UDP_SDP_CLIENT port across the full retry sequence	count=50	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP responses received on the re-used client port	50	-	info

TC21_SECC_SDP_004

TC21_SECC_SDP_004.

Test objective: once the data link is established, send the default-parameter-set SDP request 50 times, each retransmission from a FRESH, distinct client UDP port drawn from the dynamic range (49152-65535), ignoring every response and always waiting the full SDP_Msg_Timeout (0.25 s) before switching to the next port -- the sequence never stops early. Passes if more than one SDP response is observed; each one is inherently addressed back to the exact client port its corresponding request was sent from (a UDP socket only ever receives datagrams sent to the port it is bound to), so counting responses across all per-request sockets already proves the per-request port match. Fewer than 50 responses, even though 50 requests are sent, is expected and acceptable given UDP's unreliable delivery.

DUT (dut) **PASS** 18.00 s

Conformance check	Observed	Result
more than one SDP response received, each on the distinct V2G_UDP_SDP_CLIENT port its request was sent from, across the full retry sequence	count=50	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP responses received across the 50 distinct client ports	50	-	info

TC21_SECC_V2GTPSDP_001

TC21_SECC_V2GTPSDP_001.

Test objective: with the data link already established, the Test System sends a fully default SDP request and checks that the SUT answers, within SDP_Msg_Timeout, with an SDP response carrying the standard V2GTP framing: ProtocolVersion 0x01 and InvProtocolVersion 0xFE (PayloadType 0x9001 is implicit -- see below). The request is retransmitted on every timeout, up to the retry ceiling, until a response arrives.

DUT (dut) **PASS** 5.97 s

Conformance check	Observed	Result
SDP response V2GTP ProtocolVersion = 0x01	got 0x01	✓
SDP response V2GTP InvProtocolVersion = 0xFE	got 0xfe	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SDP response V2GTP PayloadLength	20 byte	-	info

TC21_SECC_V2GTPSDP_002

TC21_SECC_V2GTPSDP_002.

Test objective: with the data link already established, the Test System sends an otherwise-default SDP request but sets the V2GTP header's ProtocolVersion field to the invalid value 0xFF, repeating the send on every SDP_Msg_Timeout up to the retry ceiling. The SUT must never answer an SDP response to this malformed request.

DUT (dut) **PASS** 18.62 s

Conformance check	Observed	Result
SUT does not respond to an SDP request with an invalid V2GTP ProtocolVersion (0xFF)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC21_SECC_V2GTPSDP_003

TC21_SECC_V2GTPSDP_003.

Test objective: with the data link already established, the Test System sends an otherwise-default SDP request but sets the V2GTP header's InvProtocolVersion field to the invalid value 0xFF, repeating the send on every SDP_Msg_Timeout up to the retry ceiling. The SUT must never answer an SDP response to this malformed request.

DUT (dut) **PASS** 18.00 s

Conformance check	Observed	Result
SUT does not respond to an SDP request with an invalid V2GTP InvProtocolVersion (0xFF)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC21_SECC_V2GTPSDP_004

TC21_SECC_V2GTPSDP_004.

Test objective: with the data link already established, the Test System sends an otherwise-default SDP request but sets the V2GTP header's PayloadType field to the invalid value 0x7001 (neither the SDP request nor any known application payload type), repeating the send on every SDP_Msg_Timeout up to the retry ceiling. The SUT must never answer an SDP response to this malformed request.

DUT (dut) **PASS** 18.20 s

Conformance check	Observed	Result
SUT does not respond to an SDP request with an invalid V2GTP PayloadType (0x7001)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPSDP_005

TC21_SECC_V2GTPSDP_005.

Test objective: with the data link already established, the Test System sends an otherwise-default SDP request but declares the V2GTP header's PayloadLength field as 0 (the actual SDP request payload is 2 bytes), repeating the send on every SDP_Msg_Timeout up to the retry ceiling. The SUT must never answer an SDP response to this malformed request.

DUT (dut) **PASS** 18.80 s

Conformance check	Observed	Result
SUT does not respond to an SDP request with V2GTP PayloadLength = 0x00000000		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPSDP_006

TC21_SECC_V2GTPSDP_006.

Test objective: with the data link already established, the Test System sends an otherwise-default SDP request but declares the V2GTP header's PayloadLength field as one byte smaller than the actual SDP request payload (2 bytes, so 1 is declared), repeating the send on every SDP_Msg_Timeout up to the retry ceiling. The SUT must never answer an SDP response to this malformed request.

DUT (dut) PASS 18.00 s			
Conformance check		Observed	Result
SUT does not respond to an SDP request whose V2GTP PayloadLength is one byte smaller than the actual payload			✓
Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPSDP_007

TC21_SECC_V2GTPSDP_007.

Test objective: with the data link already established, the Test System sends an otherwise-default SDP request but declares the V2GTP header's PayloadLength field as one byte larger than the actual SDP request payload (2 bytes, so 3 is declared), repeating the send on every SDP_Msg_Timeout up to the retry ceiling. The SUT must never answer an SDP response to this malformed request.

DUT (dut) PASS 18.00 s			
Conformance check		Observed	Result
SUT does not respond to an SDP request whose V2GTP PayloadLength is one byte larger than the actual payload			✓
Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC21_SECC_V2GTPSupportedAppProtocol_001

TC21_SECC_V2GTPSupportedAppProtocol_001.

Test objective: with the data link and TLS 1.3 connection already established, the Test System sends a default-parameter-set SupportedAppProtocolReq and checks that a SupportedAppProtocolRes arrives within the message response window, framed with the standard V2GTP header: ProtocolVersion 0x01, InvProtocolVersion 0xFE and PayloadType 0x8001.

DUT (dut) **PASS** 5.58 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
response V2GTP ProtocolVersion = 0x01	got 0x01	✓
response V2GTP InvProtocolVersion = 0xFE	got 0xfe	✓
response V2GTP PayloadType = 0x8001	got 0x8001	✓
framed response is a SupportedAppProtocolRes	got 'supportedAppProtocolRes'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SupportedAppProtocolRes response time	103.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_V2GTPSupportedAppProtocol_002

TC21_SECC_V2GTPSupportedAppProtocol_002.

Test objective: with the data link and TLS 1.3 connection already established, the Test System sends a default-parameter-set SupportedAppProtocolReq and checks that the SECC's SDP-advertised V2G data port -- the TCP destination port the whole V2G connection (and hence the SupportedAppProtocolRes) rides on -- lies in the Dynamic Ports range (49152-65535), rather than a well-known/reserved port.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
SECC-advertised V2G data TCP destination port is in the Dynamic Ports range (49152-65535)	got 50000	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SECC-advertised (V2G_DST_TCP_DATA) TCP port	50000	-	info

TC21_SECC_V2GTPSupportedAppProtocol_003

TC21_SECC_V2GTPSupportedAppProtocol_003.

Test objective: with the TLS 1.3 connection already established, the Test System sends a SupportedAppProtocolReq whose V2GTP header carries an invalid ProtocolVersion (0xFF). Checks that the SUT neither answers within the message response window nor tears down the TLS connection within the CommunicationSetup performance budget -- the malformed frame is dropped, the session is not.

DUT (dut) **PASS** 22.82 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SupportedAppProtocolReq with an invalid V2GTP ProtocolVersion (0xFF) within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC21_SECC_V2GTPSupportedAppProtocol_004

TC21_SECC_V2GTPSupportedAppProtocol_004.

Test objective: with the TLS 1.3 connection already established, the Test System sends a SupportedAppProtocolReq whose V2GTP header carries an invalid InvProtocolVersion (0xFF). Checks that the SUT neither answers within the message response window nor tears down the TLS connection within the CommunicationSetup performance budget.

DUT (dut) **PASS** 23.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SupportedAppProtocolReq with an invalid V2GTP InvProtocolVersion (0xFF) within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPSupportedAppProtocol_005

TC21_SECC_V2GTPSupportedAppProtocol_005.

Test objective: with the TLS 1.3 connection already established, the Test System sends a SupportedAppProtocolReq whose V2GTP header carries an invalid PayloadType (0x7001, neither the SAP payload type nor any known application payload type). Checks that the SUT neither answers within the message response window nor tears down the TLS connection within the CommunicationSetup performance budget.

DUT (dut) **PASS** 23.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SupportedAppProtocolReq with an invalid V2GTP PayloadType (0x7001) within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPSupportedAppProtocol_006

TC21_SECC_V2GTPSupportedAppProtocol_006.

Test objective: with the TLS 1.3 connection already established, the Test System sends a SupportedAppProtocolReq whose V2GTP header declares a PayloadLength of 0, although the actual EXI payload is longer. Checks that the SUT neither answers within the message response window nor tears down the TLS connection within the CommunicationSetup performance budget.

DUT (dut) **PASS** 23.20 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SupportedAppProtocolReq with V2GTP PayloadLength = 0x00000000 within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC21_SECC_V2GTPSupportedAppProtocol_007

TC21_SECC_V2GTPSupportedAppProtocol_007.

Test objective: with the TLS 1.3 connection already established, the Test System sends a SupportedAppProtocolReq whose V2GTP header declares a PayloadLength one byte smaller than the actual EXI payload (Annex D function setSmallerV2GTPPayloadLength). Checks that the SUT neither answers within the message response window nor tears down the TLS connection within the CommunicationSetup performance budget.

DUT (dut) **PASS** 23.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SupportedAppProtocolReq whose V2GTP PayloadLength is one byte smaller than the actual payload within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPSupportedAppProtocol_008

TC21_SECC_V2GTPSupportedAppProtocol_008.

Test objective: with the TLS 1.3 connection already established, the Test System sends a SupportedAppProtocolReq whose V2GTP header declares a PayloadLength one byte larger than the actual EXI payload (Annex D function setLargerV2GTPPayloadLength). Checks that the SUT neither answers within the message response window nor tears down the TLS connection within the CommunicationSetup performance budget.

DUT (dut) **PASS** 23.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SupportedAppProtocolReq whose V2GTP PayloadLength is one byte larger than the actual payload within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPCommonMessages_001

TC21_SECC_V2GTPCommonMessages_001.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends a fully default SessionSetupReq and checks that the SUT answers, within the message observation window, with a SessionSetupRes carrying the standard V2GTP framing for a mainstream CommonMessages payload: ProtocolVersion 0x01, InvProtocolVersion 0xFE and PayloadType 0x8002.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
SessionSetupRes V2GTP ProtocolVersion = 0x01	got 0x01	✓
SessionSetupRes V2GTP InvProtocolVersion = 0xFE	got 0xfe	✓
SessionSetupRes V2GTP PayloadType = 0x8002	got 0x8002	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPCommonMessages_002

TC21_SECC_V2GTPCommonMessages_002.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends a fully default SessionSetupReq and checks that a SessionSetupRes arrives, then checks that the TCP destination port used for the whole V2G data connection (established earlier from the SDP response and reused for every CommonMessages exchange) falls within the dynamic port range (49152-65535).

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
V2G data connection TCP destination port is in the dynamic port range (49152-65535)	port=50000	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionSetupRes response time	99.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_V2GTPCommonMessages_003

TC21_SECC_V2GTPCommonMessages_003.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends an otherwise-default SessionSetupReq but sets the V2GTP header's ProtocolVersion field to the invalid value 0xFF. Checks the SUT neither answers nor tears down the TLS connection for the whole CommunicationSetup budget.

DUT (dut) **PASS** 22.82 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SessionSetupReq with an invalid V2GTP ProtocolVersion (0xFF) within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with an invalid V2GTP ProtocolVersion (0xFF)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPCommonMessages_004

TC21_SECC_V2GTPCommonMessages_004.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends an otherwise-default SessionSetupReq but sets the V2GTP header's InvProtocolVersion field to the invalid value 0xFF. Checks the SUT neither answers nor tears down the TLS connection for the whole CommunicationSetup budget.

DUT (dut) **PASS** 23.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SessionSetupReq with an invalid V2GTP InvProtocolVersion (0xFF) within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with an invalid V2GTP InvProtocolVersion (0xFF)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPCommonMessages_005

TC21_SECC_V2GTPCommonMessages_005.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends an otherwise-default SessionSetupReq but sets the V2GTP header's PayloadType field to the invalid value 0x7001 (neither the mainstream CommonMessages id nor any other known application payload type). Checks the SUT neither answers nor tears down the TLS connection for the whole CommunicationSetup budget.

DUT (dut) **PASS** 23.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SessionSetupReq with an invalid V2GTP PayloadType (0x7001) within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with an invalid V2GTP PayloadType (0x7001)		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPCommonMessages_006

TC21_SECC_V2GTPCommonMessages_006.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends an otherwise-default SessionSetupReq but declares the V2GTP header's PayloadLength field as 0 (the actual EXI payload is longer). Checks the SUT neither answers nor tears down the TLS connection for the whole CommunicationSetup budget.

DUT (dut) **PASS** 23.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SessionSetupReq with V2GTP PayloadLength = 0x00000000 within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with V2GTP PayloadLength = 0x00000000		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_V2GTPCommonMessages_007

TC21_SECC_V2GTPCommonMessages_007.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends an otherwise-default SessionSetupReq but declares the V2GTP header's PayloadLength field as one byte smaller than the actual EXI payload. Checks the SUT neither answers nor tears down the TLS connection for the whole CommunicationSetup budget.

DUT (dut) **FAIL** 10.18 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with a V2GTP PayloadLength one byte smaller than the actual payload – connection was closed

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SessionSetupReq with a V2GTP PayloadLength one byte smaller than the actual payload within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with a V2GTP PayloadLength one byte smaller than the actual payload	connection was closed	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
TCP connection close after failure/ timeout	997.0 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✓

Failure detail (excerpt):

E `AssertionError: SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with a V2GTP PayloadLength one byte smaller than the actual payload – connection was closed`

TC21_SECC_V2GTPCommonMessages_008

TC21_SECC_V2GTPCommonMessages_008.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends an otherwise-default SessionSetupReq but declares the V2GTP header's PayloadLength field as one byte larger than the actual EXI payload. Checks the SUT neither answers nor tears down the TLS connection for the whole CommunicationSetup budget.

DUT (dut) **PASS** 22.82 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT does not respond to a SessionSetupReq with a V2GTP PayloadLength one byte larger than the actual payload within V2G_EVCC_Msg_Timeout		✓
SUT does not terminate the TLS connection within V2G_SECC_CommunicationSetup_Performance_Time after a SessionSetupReq with a V2GTP PayloadLength one byte larger than the actual payload		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_SupportedAppProtocol_001

TC21_SECC_SupportedAppProtocol_001.

Test objective: happy-path SupportedAppProtocol handshake. With the TLS 1.3 connection already established, the Test System offers the default single-entry AppProtocol list (the -20 namespace matching the configured energy-transfer type, at its default version/schema/priority values) and checks that a SupportedAppProtocolRes arrives before the message observation window elapses. Neither the ResponseCode nor the SchemaID value is constrained by this TC (the ATS format leaves both as wildcards here) -- only the message type and its timeliness are graded.

DUT (dut) **PASS** 5.79 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SupportedAppProtocolRes response time	103.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ResponseCode	OK_SuccessfulNegotiation	-	info
SchemaID	1	-	info

TC21_SECC_SupportedAppProtocol_002

TC21_SECC_SupportedAppProtocol_002.

Test objective: negative SupportedAppProtocol handshake. The Test System offers a single AppProtocol whose namespace names the -20 CommonMessages schema directly -- not a valid energy-transfer-service namespace -- and checks that the SUT rejects the offer with ResponseCode FAILED_NoNegotiation, in time, and omits SchemaID from the response.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode = FAILED_NoNegotiation for a CommonMessages namespace offer	got 'Failed_NoNegotiation'	✓
SupportedAppProtocolRes omits SchemaID	got None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SupportedAppProtocolRes response time	103.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SupportedAppProtocol_003

TC21_SECC_SupportedAppProtocol_003.

Test objective: SupportedAppProtocol priority selection. The Test System offers two AppProtocol entries in one request -- a legacy namespace at the lower priority (Priority 2, listed first) and the -20 energy-transfer namespace at the highest priority (Priority 1, listed second) -- and checks that the SUT negotiates the highest-priority entry (the -20 namespace) rather than simply the first list entry, replying OK_SuccessfulNegotiation and echoing that entry's SchemaID. Note that a lower Priority number means a higher priority: Priority 1 is the numerically lowest value and thus the highest priority.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode = OK_SuccessfulNegotiation	got 'OK_SuccessfulNegotiation'	✓
SUT selects the highest-priority protocol's SchemaID (2), not the first list entry's	got 2	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_SupportedAppProtocol_004

TC21_SECC_SupportedAppProtocol_004.

Test objective: SupportedAppProtocol minor-version tolerance. The Test System offers the default single-entry AppProtocol list but with a VersionNumberMinor that deliberately differs from the SUT's, and checks that the SUT still negotiates successfully -- replying OK_SuccessfulNegotiation and echoing back the SchemaID of the offered (and only) entry.

DUT (dut) **FAIL** 6.00 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: ResponseCode = OK_SuccessfulNegotiation -- got 'OK_SuccessfulNegotiationWithMinorDeviation'

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
SUT sends a supportedAppProtocolRes message	got 'supportedAppProtocolRes'	✓
ResponseCode = OK_SuccessfulNegotiation	got 'OK_SuccessfulNegotiationWithMinorDeviation'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

E AssertionError: ResponseCode = OK_SuccessfulNegotiation -- got 'OK_SuccessfulNegotiationWithMinorDeviation'

TC21_SECC_SessionSetup_002

TC21_SECC_SessionSetup_002.

Test objective: GoodCase up to the SupportedAppProtocol handshake (TLS connected, no session yet); the Test System then sends a valid ServiceDiscoveryReq (SessionID all-zero) in place of the expected SessionSetupReq. Checks the SUT answers with a ServiceDiscoveryRes within the message response window, carrying ResponseCode FAILED_SequenceError, no Header signature and no VASList.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓
ServiceDiscoveryRes omits the VASList	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SessionSetup_003

TC21_SECC_SessionSetup_003.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System then withholds the SessionSetupReq entirely. Checks the SUT terminates the TLS connection between the CommunicationSetup performance time and the following TLS connection termination timeout -- distinguishing an SUT that enforces the tighter CommunicationSetup budget from one that only reacts to the much longer general sequence timeout.

DUT (dut) **PASS** 23.82 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT terminates the TLS connection between V2G_SECC_CommunicationSetup_Performance_Time and TLS_Connection_Termination_Timeout (17-24s)	closed 18.1s after TLS establishment	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/timeout	17976.3 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗
TLS termination after V2G_SECC_CommunicationSetup_Performance_Time	18.1 s	-	info

TC21_SECC_SessionSetup_004

TC21_SECC_SessionSetup_004.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends a SessionSetupReq built from the default parameter set. Checks a SessionSetupRes is received within the message response window and that it carries a syntactically valid (non-empty) EVSEID; the ResponseCode value itself is not constrained by this TC.

DUT (dut) **PASS** 6.17 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
SessionSetupRes carries a syntactically valid EVSEID	got 'DE*PNX*E12345*1'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionSetupRes response time	99.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SessionSetup_005

TC21_SECC_SessionSetup_005.

Test objective: GoodCase up to the SupportedAppProtocol handshake; the Test System sends a SessionSetupReq built from the default parameter set. Checks a SessionSetupRes is received in time carrying ResponseCode OK_NewSessionEstablished and a newly assigned, non-zero SessionID.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT sends a SessionSetupRes message	got 'SessionSetupRes'	✓
ResponseCode = OK_NewSessionEstablished	got 'OK_NewSessionEstablished'	✓
SessionSetupRes carries a new non-zero SessionID	got 75e245ba498816bf	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
SessionSetupRes response time	100.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_AuthorizationSetup_001

TC21_SECC_AuthorizationSetup_001.

Test objective: GoodCase up to a received SessionSetupRes; the Test System then sends an AuthorizationSetupReq built from the default parameter set. Checks an AuthorizationSetupRes is received within the message response window, carrying ResponseCode OK, the list of advertised authorization services, the certificate-installation-service flag, and -- because the SUT offers PnC -- a PnC authorization-mode block whose GenChallenge is a present, 16-byte value.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
AuthorizationSetupRes received within V2G_EVCC_Msg_Timeout (2 s)	100 ms	✓
SUT sends an AuthorizationSetupRes message	got 'AuthorizationSetupRes'	✓
ResponseCode = OK	got 'OK'	✓
AuthorizationSetupRes advertises the authorization services	got ['EIM', 'PnC']	✓
AuthorizationSetupRes carries the CertificateInstallationService flag	got True	✓
PnC offered: PnC_ASResAuthorizationMode carries a GenChallenge	got '70cca651d21741717fb8523c13938779'	✓
GenChallenge is 16 bytes long [V2G20-2110]	got 16 byte(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
AuthorizationSetupRes response time	99.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
advertised authorization services	['EIM', 'PnC']	-	info

TC21_SECC_AuthorizationSetup_002

TC21_SECC_AuthorizationSetup_002.

Test objective: GoodCase up to a received SessionSetupRes; the Test System then sends an AuthorizationSetupReq whose SessionID is a freshly generated nonce not matching the established session. Checks an AuthorizationSetupRes is received within the message response window, carrying ResponseCode FAILED_UnknownSession and no Header signature.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
AuthorizationSetupRes received within V2G_EVCC_Msg_Timeout (2 s)	100 ms	✓
SUT sends an AuthorizationSetupRes message	got 'AuthorizationSetupRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
AuthorizationSetupRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_AuthorizationSetup_003

TC21_SECC_AuthorizationSetup_003.

Test objective: GoodCase up to a received SessionSetupRes; the Test System then sends a valid ServiceDiscoveryReq in place of the expected AuthorizationSetupReq. Checks the SUT answers with a ServiceDiscoveryRes within the message response window, carrying ResponseCode FAILED_SequenceError, no Header signature and no VASList.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
ServiceDiscoveryRes received within V2G_EVCC_Msg_Timeout (2 s)	100 ms	✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓
ServiceDiscoveryRes omits the VASList	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
ServiceDiscoveryRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_AuthorizationSetup_004

TC21_SECC_AuthorizationSetup_004.

Test objective: GoodCase up to a received SessionSetupRes; the Test System then withholds the AuthorizationSetupReq entirely. Checks the SUT reacts to the V2G sequence timeout by terminating the TLS connection between the sequence timeout and the following TLS connection termination timeout (i.e. the connection comes down no earlier than the sequence timeout and within the termination budget on top of it).

DUT (dut) **PASS** 70.49 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout (59-66s)	closed 64.0s after SessionSetupRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/ timeout	64029.6 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗
TLS termination after V2G_SECC_Sequence_Timeout	64.0 s	-	info

TC21_SECC_AuthorizationSetup_005

TC21_SECC_AuthorizationSetup_005.

Test objective: GoodCase up to a received SessionSetupRes; the Test System then sends a SessionStopReq built from the default parameter set, modelling an EV-initiated shutdown for a non-critical reason (Terminate). Checks a SessionStopRes is received within the message response window carrying ResponseCode OK.

DUT (dut) **PASS** 6.11 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
SessionStopRes received within V2G_EVCC_Msg_Timeout (2 s)	100 ms	✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	99.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_001

TC21_SECC_CertificateInstallation_001.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq built from the default parameter set but with MaximumContractCertificateChains raised to 2, with more than one contract available at the backend for this vehicle's provisioning identity. Checks the SUT answers a CertificateInstallationRes in time, ultimately with EVSEProcessing Finished, ResponseCode OK, a verifiable SignedInstallationData signature, and RemainingContractCertificateChains == 1 (two available, one delivered). Requires more than one contract at the backend (PIXIT_CMN_MultipleContracts).

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = OK	got 'OK'	✓
RemainingContractCertificateChains == 1	got 1	✓
SignedInstallationData signature verifies against the CPS leaf	SignedInstallationData signature verified against CPS leaf	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.4 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	98.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
05:49:35.279	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T05:49:35.278Z"}
05:49:35.280	CSMS ↔ CS	StatusNotification (response)	{}
05:49:37.620	CS ↔ CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<3080 base64 chars>", "iso15118SchemaVersion": "urn:iso:std:iso:15118:-20:CommonMessages"}
05:49:37.634	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<6368 base64 chars>", "remainingContracts": 1, "status": "Accepted"}

TC21_SECC_CertificateInstallation_002

TC21_SECC_CertificateInstallation_002.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq from the default parameter set with exactly one contract available at the backend for this provisioning identity. Checks the SUT answers a CertificateInstallationRes in time, ultimately with EVSEProcessing Finished, ResponseCode OK, a verifiable SignedInstallationData signature, and RemainingContractCertificateChains == 0 (the single available contract delivered). Requires a single contract at the backend (PIXIT_CMN_MultipleContracts = False).

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = OK	got 'OK'	✓
RemainingContractCertificateChains == 0	got 0	✓
SignedInstallationData signature verifies against the CPS leaf	SignedInstallationData signature verified against CPS leaf	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
05:49:42.277	CS → CSMS	StatusNotification	{ "connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T05:49:42.277Z" }
05:49:42.278	CSMS → CS	StatusNotification (response)	{ }
05:49:44.618	CS → CSMS	Get15118EVCertificate	{ "action": "Install", "exiRequest": "<3080 base64 chars>", "iso15118SchemaVersion": "urn:iso:std:iso:15118:-20:CommonMessages" }
05:49:44.627	CSMS → CS	Get15118EVCertificate (response)	{ "exiResponse": "<6368 base64 chars>", "remainingContracts": 0, "status": "Accepted" }

TC21_SECC_CertificateInstallation_003

TC21_SECC_CertificateInstallation_003.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose PrioritizedEMAIDs list names an EMAID whose eMSP is not registered at the backend. Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_eMSPUnknown. Backend condition PIXIT_SECC_UnknownEMAID.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_eMSPUnknown	got 'WARNING_eMSPUnknown'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
05:49:49.280	CS → CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T05:49:49.280Z"}
05:49:49.282	CSMS → CS	StatusNotification (response)	{}
05:49:51.621	CS → CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<3100 base64 chars>", "iso15118SchemaVersion": "urn:iso:std:iso:15118:-20:CommonMessages"}
05:49:51.625	CSMS → CS	Get15118EVCertificate (response)	{"exiResponse": "<224 base64 chars>", "remainingContracts": 0, "status": "Accepted"}

TC21_SECC_CertificateInstallation_004

TC21_SECC_CertificateInstallation_004.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq for a provisioning identity (PCID) for which the backend has no registered contract. Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_NoContractMatchingPCIDFound. The "no contract for this PCID" condition is realised by the backend / SA configuration (PIXIT_SECC_UnknownPCID); the wire request uses the default OEM provisioning chain.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_NoContractMatchingPCIDFound	got 'WARNING_NoContractMatchingPCIDFound'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
05:49:56.278	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T05:49:56.278Z"}
05:49:56.279	CSMS ↔ CS	StatusNotification (response)	{}
05:49:58.625	CS ↔ CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<3080 base64 chars>", "iso15118SchemaVersion": "urn:iso:std:iso:15118:-20:CommonMessages"}
05:49:58.627	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<224 base64 chars>", "remainingContracts": 0, "status": "Accepted"}
05:49:58.756	CS ↔ CSMS	Heartbeat	{}
05:49:58.757	CSMS ↔ CS	Heartbeat (response)	{"currentTime": "2026-10-11T05:49:58.000Z"}

TC21_SECC_CertificateInstallation_005

TC21_SECC_CertificateInstallation_005.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq while the SUT cannot retrieve a new contract certificate from the backend within the message performance time. Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_NoCertificateAvailable. The unreachable-backend condition is realised by the SA configuration (PIXIT_SECC_CommunicationToSA = False); the wire request uses the default OEM provisioning chain.

DUT (dut) **PASS** 6.99 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_NoCertificateAvailable	got 'WARNING_NoCertificateAvailable'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
05:50:03.278	CS ↔ CSMS	StatusNotification	{"connectorId": 1, "connectorStatus": "Occupied", "evseId": 1, "timestamp": "2026-10-11T05:50:03.277Z"}
05:50:03.278	CSMS ↔ CS	StatusNotification (response)	{}
05:50:05.618	CS ↔ CSMS	Get15118EVCertificate	{"action": "Install", "exiRequest": "<3080 base64 chars>", "iso15118SchemaVersion": "urn:iso:std:iso:15118:-20:CommonMessages"}
05:50:05.619	CSMS ↔ CS	Get15118EVCertificate (response)	{"exiResponse": "<0 base64 chars>", "status": "Failed", "statusInfo": {"reasonCode": "BackendUnreachable"}}

TC21_SECC_CertificateInstallation_006

TC21_SECC_CertificateInstallation_006.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has an expired leaf certificate (sub-CAs valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
CertificateInstallationRes response time	97.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_007

TC21_SECC_CertificateInstallation_007.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has an expired SubCA2 certificate (leaf and SubCA1 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_008

TC21_SECC_CertificateInstallation_008.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has an expired SubCA1 certificate (leaf and SubCA2 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_009

TC21_SECC_CertificateInstallation_009.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has an expired leaf and expired SubCA2 (SubCA1 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	98.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_010

TC21_SECC_CertificateInstallation_010.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has an expired leaf and expired SubCA1 (SubCA2 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
CertificateInstallationRes response time	97.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_011

TC21_SECC_CertificateInstallation_011.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has an expired SubCA2 and expired SubCA1 (leaf valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_012

TC21_SECC_CertificateInstallation_012.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose entire OEM provisioning chain (leaf, SubCA2 and SubCA1) is expired. Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateExpired.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_013

TC21_SECC_CertificateInstallation_013.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has a not-yet-valid leaf certificate (sub-CAs valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_014

TC21_SECC_CertificateInstallation_014.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has a not-yet-valid SubCA2 certificate (leaf and SubCA1 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_015

TC21_SECC_CertificateInstallation_015.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has a not-yet-valid SubCA1 certificate (leaf and SubCA2 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	408.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_016

TC21_SECC_CertificateInstallation_016.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has a not-yet-valid leaf and not-yet-valid SubCA2 (SubCA1 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.41 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	96.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_017

TC21_SECC_CertificateInstallation_017.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has a not-yet-valid leaf and not-yet-valid SubCA1 (SubCA2 valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_018

TC21_SECC_CertificateInstallation_018.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose OEM provisioning chain has a not-yet-valid SubCA2 and not-yet-valid SubCA1 (leaf valid). Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 97 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	408.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_019

TC21_SECC_CertificateInstallation_019.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq whose entire OEM provisioning chain (leaf, SubCA2 and SubCA1) is not yet valid. Checks the SUT answers a CertificateInstallationRes in time with EVSEProcessing Finished and ResponseCode WARNING_CertificateNotYetValid.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
EVSEProcessing = Finished	got 'Finished'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_020

TC21_SECC_CertificateInstallation_020.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq from the default parameter set but with an unknown SessionID. Checks the SUT answers a CertificateInstallationRes in time with ResponseCode FAILED_UnknownSession.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	408.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
CertificateInstallationRes response time	97.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallation_021

TC21_SECC_CertificateInstallation_021.

Test objective: GoodCase up to AuthorizationSetupRes; the Test System sends a CertificateInstallationReq from the default parameter set whose Header signature is computed with a private key other than the OEM provisioning leaf's -- the ATS's f_setSignature(toBeSigned_value, contractPrivateKey_value): a well-formed signature over the correct content, made with the MO contract leaf key instead. Checks the SUT answers a CertificateInstallationRes in time with ResponseCode FAILED_SignatureError.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a CertificateInstallationRes message	got 'CertificateInstallationRes'	✓
every CertificateInstallationRes received within V2G_EVCC_Msg_Timeout (5 s)	slowest 98 ms	✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
CertificateInstallationRes response time	97.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_Authorization_001

TC21_SECC_Authorization_001.

Test objective: GoodCase up to AuthorizationSetup; the Test System sends the AuthorizationReq from the ATS Annex C default parameter set for the authorization service the SUT offers: when the SUT offered PnC, the signed PnC request (Id "ram_id", the SUT's GenChallenge, the valid contract chain, signed with the contract private key); otherwise the bare EIM request after an external-identification token was presented at the charger. Checks every AuthorizationRes arrives within the message response window and that, following the Ongoing → Finished repetition, the final one carries ResponseCode OK with EVSEProcessing Finished.

DUT (dut) **PASS** 6.32 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 2 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
authorization service used (Annex C default set)	PnC	-	info
PnC Authorization polls to EVSEProcessing=Finished	2	-	info

TC21_SECC_Authorization_003

TC21_SECC_Authorization_003.

Test objective: GoodCase up to AuthorizationSetup; the Test System sends the default signed PnC AuthorizationReq (valid contract chain). The eMAID of that contract leaf is one the SUT's secondary actor does not know -- an SUT-side precondition (ATS PIXIT_SECC_UnknownEMAID = True), not a wire-level fault: the chain and signature verify. The TC therefore needs the tester's CSMS as the DUT's backend (PIXIT_SECC_TesterCSMS, marker requires_csms, SUT config config-test-conformance-iso20-pnc-ocpp.yaml); there the condition is produced by the backend itself: the OCPP Authorize for the eMAID is answered idTokenInfo.status Unknown ("identifier is unknown") with the certificate accepted, which is the OCPP rendering of [V2G20-2211]. Checks the AuthorizationRes carries ResponseCode WARNING_eMSPUnknown with EVSEProcessing Finished.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 97 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_eMSPUnknown	got 'WARNING_eMSPUnknown' after 2 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

OCPP (DUT ↔ tester CSMS)	Direction	Message	Payload
05:46:01.277	CS ↔ CSMS	StatusNotification	{"connectorId":1,"connectorStatus":"Occupied","evseId":1,"timestamp":"2026-10-11T05:46:01.277Z"}
05:46:01.278	CSMS ↔ CS	StatusNotification (response)	{}
05:46:03.652	CS ↔ CSMS	Authorize	{ "idToken": { "idToken": "UKSWI123456791A", "type": "eMAID" }, "iso15118CertificateHashData": [{ "hashAlgorithm": "SHA256", "issuerKeyHash": "2a25071abd4fc18b270897506f488d0a0cdb442872fe6da9020bbb03b6945e2d", "issuerNameHash": "efc5a55e6e1e59c7605b48d7f260f2321aba004f97f5872986c3388f8756dce5", "responderURL": "https://www.example.com/", "serialNumber": "3044" }, { "hashAlgorithm": "SHA256", "issuerKeyHash": "7f306ad7add158c26f05ee0e35d0f120988ecf1caa5c64a81aa90959553318b9", "issuerNameHash": "0fd741fe2020f72842fa212a4dc59f00d8d9e04a48d6eb01ea68e63978ac0c4a", "responderURL": "https://www.example.com/", "serialNumber": "3043 ..." }] }
05:46:03.653	CSMS ↔ CS	Authorize (response)	{ "certificateStatus": "Accepted", "idTokenInfo": { "status": "Unknown" } }

TC21_SECC_Authorization_004

TC21_SECC_Authorization_004.

Test objective: signed PnC AuthorizationReq whose contract leaf certificate has a validity window entirely in the past (Sub-CA2/Sub-CA1 valid). Checks the AuthorizationRes reports WARNING_CertificateExpired, EVSEProcessing Finished.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 90 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_005

TC21_SECC_Authorization_005.

Test objective: signed PnC AuthorizationReq whose eMSP Sub-CA2 certificate is expired (leaf/Sub-CA1 valid) → WARNING_CertificateExpired, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_006

TC21_SECC_Authorization_006.

Test objective: signed PnC AuthorizationReq whose eMSP Sub-CA1 certificate is expired (leaf/Sub-CA2 valid) → WARNING_CertificateExpired, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_007

TC21_SECC_Authorization_007.

Test objective: signed PnC AuthorizationReq with both the contract leaf and eMSP Sub-CA2 expired (Sub-CA1 valid) → WARNING_CertificateExpired, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_008

TC21_SECC_Authorization_008.

Test objective: signed PnC AuthorizationReq with both the contract leaf and eMSP Sub-CA1 expired (Sub-CA2 valid) → WARNING_CertificateExpired, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_009

TC21_SECC_Authorization_009.

Test objective: signed PnC AuthorizationReq with both eMSP Sub-CA2 and Sub-CA1
expired (leaf valid) → WARNING_CertificateExpired, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 94 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_010

TC21_SECC_Authorization_010.

Test objective: signed PnC AuthorizationReq with the contract leaf, eMSP

Sub-CA2 and Sub-CA1 all expired → WARNING_CertificateExpired, Finished.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 94 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateExpired	got 'WARNING_CertificateExpired' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_011

TC21_SECC_Authorization_011.

Test objective: signed PnC AuthorizationReq whose contract leaf certificate has a validity window entirely in the future (Sub-CA2/Sub-CA1 valid) → WARNING_CertificateNotYetValid, EVSEProcessing Finished.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_012

TC21_SECC_Authorization_012.

Test objective: signed PnC AuthorizationReq whose eMSP Sub-CA2 is not yet valid (leaf/Sub-CA1 valid) → WARNING_CertificateNotYetValid, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_013

TC21_SECC_Authorization_013.

Test objective: signed PnC AuthorizationReq whose eMSP Sub-CA1 is not yet valid (leaf/Sub-CA2 valid) → WARNING_CertificateNotYetValid, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 95 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_014

TC21_SECC_Authorization_014.

Test objective: signed PnC AuthorizationReq with both the contract leaf and eMSP Sub-CA2 not yet valid (Sub-CA1 valid) →
WARNING_CertificateNotYetValid, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 95 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_015

TC21_SECC_Authorization_015.

Test objective: signed PnC AuthorizationReq with both the contract leaf and eMSP Sub-CA1 not yet valid (Sub-CA2 valid) →
WARNING_CertificateNotYetValid, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 95 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_016

TC21_SECC_Authorization_016.

Test objective: signed PnC AuthorizationReq with both eMSP Sub-CA2 and Sub-CA1
not yet valid (leaf valid) → WARNING_CertificateNotYetValid, Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 93 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_017

TC21_SECC_Authorization_017.

Test objective: signed PnC AuthorizationReq with the contract leaf, eMSP
 Sub-CA2 and Sub-CA1 all not yet valid → WARNING_CertificateNotYetValid,
 Finished.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 93 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_CertificateNotYetValid	got 'WARNING_CertificateNotYetValid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_Authorization_018

TC21_SECC_Authorization_018.

Test objective: GoodCase up to AuthorizationSetup; the Test System sends a signed PnC AuthorizationReq whose GenChallenge was NOT the one delivered in the preceding AuthorizationSetupRes (a fresh random value the signature is computed over). Checks the AuthorizationRes reports WARNING_ChallengeInvalid with EVSEProcessing Finished.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 98 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = WARNING_ChallengeInvalid	got 'WARNING_ChallengeInvalid' after 1 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC21_SECC_Authorization_021

TC21_SECC_Authorization_021.

Test objective: GoodCase up to AuthorizationSetup; the Test System sends a PnC AuthorizationReq whose Header signature is computed with a private key other than the contract leaf's (the OEM provisioning key), so the SUT's signature verification over PnC_AReqAuthorizationMode fails. Checks the AuthorizationRes reports ResponseCode FAILED_SignatureError.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	96 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = FAILED_SignatureError	got 'FAILED_SignatureError'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.3 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
AuthorizationRes response time	96.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_Authorization_023

TC21_SECC_Authorization_023.

Test objective: GoodCase up to AuthorizationSetup; the Test System sends a signed PnC AuthorizationReq whose contract leaf is still valid but expires in 14 days or fewer. Checks the AuthorizationRes carries ResponseCode OK_CertificateExpiresSoon with EVSEProcessing Finished.

DUT (dut) **PASS** 6.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every AuthorizationRes received within V2G_EVCC_Msg_Timeout (2 s)	slowest 95 ms	✓
SUT sends an AuthorizationRes message	got 'AuthorizationRes'	✓
ResponseCode = OK_CertificateExpiresSoon	got 'OK_CertificateExpiresSoon' after 2 poll(s)	✓
EVSEProcessing = Finished	got 'Finished'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info

TC21_SECC_Authorization_024

TC21_SECC_Authorization_024.

Test objective: GoodCase up to AuthorizationSetup; the Test System sends a SessionStopReq from the default parameter set (an EV-initiated shutdown for a non-critical reason). Checks a SessionStopRes is received within the message response window carrying ResponseCode OK.

DUT (dut) **PASS** 6.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SessionStopRes received within V2G_EVCC_Msg_Timeout (2 s)	100 ms	✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallationOrAuthorization_001

TC21_SECC_CertificateInstallationOrAuthorization_001.

Test objective: GoodCase up to AuthorizationSetup (the SUT now expects either an AuthorizationReq or a CertificateInstallationReq); the Test System instead sends a valid ServiceDiscoveryReq from the default parameter set. Checks the SUT answers a ServiceDiscoveryRes within the message response window carrying ResponseCode FAILED_SequenceError and no Header signature.

DUT (dut) **PASS** 6.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓
VASList omitted (ATS: VASList := omit)	got None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	408.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_CertificateInstallationOrAuthorization_002

TC21_SECC_CertificateInstallationOrAuthorization_002.

Test objective: GoodCase up to AuthorizationSetup; the Test System then sends neither an AuthorizationReq nor a CertificateInstallationReq and stays silent past the SECC sequence timeout. Checks the SUT reacts to the sequence timeout by terminating the TLS connection within the following TLS termination timeout. LONG TEST.

DUT (dut) **PASS** 69.89 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout (59..66s)	closed 64.0s after AuthorizationSetupRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/timeout	64009.8 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_ServiceDiscovery_001

TC21_SECC_ServiceDiscovery_001.

Test objective: after AuthorizationRes(Finished), send a ServiceDiscoveryReq built from the default parameter set and check the SUT replies ServiceDiscoveryRes with ResponseCode OK, an EnergyTransferServiceList and a stated ServiceRenegotiationSupported flag; any value-added-service list the SUT chooses to advertise must be well-formed.

DUT (dut) **PASS** 6.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓
ServiceDiscoveryRes states ServiceRenegotiationSupported	got False	✓
ServiceDiscoveryRes offers at least one energy-transfer service	got {'Service': [{'FreeService': False, 'ServiceID': 2}, {'FreeService': False, 'ServiceID': 6}]}	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
ServiceDiscoveryRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ServiceDiscovery_002

TC21_SECC_ServiceDiscovery_002.

Test objective: after AuthorizationRes(Finished), send a ServiceDiscoveryReq carrying a SessionID the SECC never assigned and check the SUT replies ServiceDiscoveryRes with ResponseCode FAILED_UnknownSession and no VASList.

DUT (dut) **PASS** 7.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
ServiceDiscoveryRes carries no VASList on the failure path	got None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceDiscovery_003

TC21_SECC_ServiceDiscovery_003.

Test objective: after AuthorizationRes(Finished), send a valid AuthorizationSetupReq instead of the expected ServiceDiscoveryReq (sequence error) and check the SUT replies AuthorizationSetupRes with ResponseCode FAILED_SequenceError.

DUT (dut) **PASS** 7.20 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends an AuthorizationSetupRes message	got 'AuthorizationSetupRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceDiscovery_004

TC21_SECC_ServiceDiscovery_004.

Test objective: after AuthorizationRes(Finished) the Test System sends no further request and waits out V2G_SECC_Sequence_Timeout instead of sending ServiceDiscoveryReq; checks the SUT terminates the session by closing the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout. LONG TEST (waits the ~60 s sequence timeout).

DUT (dut) **PASS** 70.89 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TLS connection after V2G_SECC_Sequence_Timeout (within 66s)	closed 64.0s after AuthorizationRes(Finished)	✓
SUT does not close before V2G_SECC_Sequence_Timeout expires (>= 59s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
TCP connection close after failure/timeout	64023.9 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_ServiceDiscovery_005

TC21_SECC_ServiceDiscovery_005.

Test objective: after AuthorizationRes(Finished), send a SessionStopReq built from the default parameter set (an EV-initiated shutdown for a non-critical reason) and check the SUT replies SessionStopRes with ResponseCode OK.

DUT (dut) **PASS** 7.91 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	100.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ServiceDetail_001

TC21_SECC_ServiceDetail_001.

Test objective: after ServiceDiscoveryRes, send a ServiceDetailReq for the energy-transfer service the SUT offered (matching the configured AC/DC transfer mode) and check the SUT replies ServiceDetailRes with ResponseCode OK, the echoed ServiceID and a ServiceParameterList.

DUT (dut) **PASS** 6.58 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B. 4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDetailRes message	got 'ServiceDetailRes'	✓
ResponseCode = OK	got 'OK'	✓
ServiceDetailRes echoes the requested ServiceID 2	got 2	✓

Conformance check	Observed	Result
ServiceDetailRes carries a ServiceParameterList	got {'ParameterSet': [{'Parameter': {'Name': 'Connector', 'intValue': 2}, {'Name': 'ControlMode', 'intValue': 2}, {'Name': 'MobilityNeedsMode', 'intValue': 1}, {'Name': 'Pricing', 'intValue': 0}], 'ParameterSetID': 0}, {'Parameter': {'Name': 'Connector', 'intValue': 2}, {'Name': 'ControlMode', 'intValue': 1}, {'Name': 'MobilityNeedsMode', 'intValue': 1}, {'Name': 'Pricing', 'intValue': 0}], 'ParameterSetID': 1}]}	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDetailRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ServiceDetail_002

TC21_SECC_ServiceDetail_002.

Test objective: after ServiceDiscoveryRes, send a ServiceDetailReq for the offered energy-transfer service carrying a SessionID the SECC never assigned and check the SUT replies ServiceDetailRes with ResponseCode FAILED_UnknownSession.

DUT (dut) **PASS** 7.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDetailRes message	got 'ServiceDetailRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceDetail_003

TC21_SECC_ServiceDetail_003.

Test objective: after ServiceDiscoveryRes, send a second, valid ServiceDiscoveryReq instead of the expected ServiceDetailReq (sequence error) and check the SUT replies ServiceDiscoveryRes with ResponseCode FAILED_SequenceError and no VASList.

DUT (dut) **PASS** 7.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
ServiceDiscoveryRes carries no VASList on the failure path	got None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info

TC21_SECC_ServiceDetail_004

TC21_SECC_ServiceDetail_004.

Test objective: after ServiceDiscoveryRes, send a ServiceDetailReq naming a valid ServiceID the SUT did NOT offer in ServiceDiscoveryRes and check the SUT replies ServiceDetailRes with ResponseCode FAILED_ServiceIDInvalid.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDetailRes message	got 'ServiceDetailRes'	✓
ResponseCode = FAILED_ServiceIDInvalid	got 'FAILED_ServiceIDInvalid'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceDetail_005

TC21_SECC_ServiceDetail_005.

Test objective: after ServiceDiscoveryRes the Test System sends no further request and waits out V2G_SECC_Sequence_Timeout instead of sending ServiceDetailReq; checks the SUT terminates the session by closing the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout. LONG TEST (waits the ~60 s sequence timeout).

DUT (dut) **PASS** 70.89 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TLS connection after V2G_SECC_Sequence_Timeout (within 66s)	closed 64.0s after ServiceDiscoveryRes	✓
SUT does not close before V2G_SECC_Sequence_Timeout expires (≥ 59 s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
TCP connection close after failure/timeout	64021.1 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_ServiceDetail_006

TC21_SECC_ServiceDetail_006.

Test objective: after ServiceDiscoveryRes, send a SessionStopReq built from the default parameter set (an EV-initiated shutdown for a non-critical reason) and check the SUT replies SessionStopRes with ResponseCode OK.

DUT (dut) **PASS** 7.11 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
SessionStopRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ServiceSelection_001

TC21_SECC_ServiceSelection_001.

Test objective: GoodCase; after ServiceDetailRes the Test System sends a ServiceSelectionReq selecting the energy-transfer service and parameter set the SUT offered, with all other elements at their default parameter-set values, and checks that the SUT replies with a ServiceSelectionRes carrying ResponseCode OK within the message-response timeout.

DUT (dut) **PASS** 7.40 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceSelectionRes message	got 'ServiceSelectionRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceSelection_002

TC21_SECC_ServiceSelection_002.

Test objective: GoodCase; after ServiceDetailRes the Test System sends a ServiceSelectionReq that otherwise matches the default parameter set but carries a SessionID the SUT never assigned, and checks that the SUT replies with a ServiceSelectionRes carrying ResponseCode FAILED_UnknownSession within the message-response timeout.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceSelectionRes message	got 'ServiceSelectionRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceSelection_003

TC21_SECC_ServiceSelection_003.

Test objective: GoodCase; after ServiceDetailRes the Test System sends a valid ServiceDiscoveryReq (default parameter set) rather than the expected ServiceSelectionReq, and checks that the SUT replies with a ServiceDiscoveryRes carrying ResponseCode FAILED_SequenceError and no VASList within the message-response timeout.

DUT (dut) **PASS** 7.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
ServiceDiscoveryRes carries no VASList on the failure path	got None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ServiceSelection_004

TC21_SECC_ServiceSelection_004.

Test objective: GoodCase; after ServiceDetailRes the Test System sends a ServiceSelectionReq naming a ServiceID that was never offered in ServiceDiscoveryRes together with a ParameterSetID that was never offered in ServiceDetailRes, and checks that the SUT replies with a ServiceSelectionRes carrying ResponseCode FAILED_ServiceSelectionInvalid within the message-response timeout.

DUT (dut) **FAIL** 7.40 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: ResponseCode = FAILED_ServiceSelectionInvalid – got
'FAILED_NoEnergyTransferServiceSelected'

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=Everest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=Everest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceSelectionRes message	got 'ServiceSelectionRes'	✓
ResponseCode = FAILED_ServiceSelectionInvalid	got 'FAILED_NoEnergyTransferServiceSelected'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Failure detail (excerpt):

```
E   AssertionError: ResponseCode = FAILED_ServiceSelectionInvalid - got  
'FAILED_NoEnergyTransferServiceSelected'
```

TC21_SECC_ServiceSelection_006

TC21_SECC_ServiceSelection_006.

Test objective: GoodCase up to ServiceDetailRes, then the Test System sends nothing further (no ServiceSelectionReq) and waits. The pass criterion is that the SUT closes the TLS connection no earlier than the SECC sequence timeout and no later than that timeout plus the TLS connection termination bound.

DUT (dut) **PASS** 70.89 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT closes the TLS connection within 66s of silence after ServiceDetailRes	closed after 64.0s	✓
SUT does not close before V2G_SECC_Sequence_Timeout expires (≥ 59 s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
TCP connection close after failure/timeout	64023.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_ServiceSelection_007

TC21_SECC_ServiceSelection_007.

Test objective: GoodCase up to ServiceDetailRes, then the Test System sends a SessionStopReq for a non-critical, EV-initiated shutdown (default parameter set), and checks that the SUT replies with a SessionStopRes carrying ResponseCode OK within the message-response timeout.

DUT (dut) **PASS** 7.10 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.1 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_ChargeParameterDiscovery_001

TC21_SECC_ChargeParameterDiscovery_001.

Test objective: happy-path ChargeParameterDiscovery. GoodCase through the CommonMessages negotiation sequence up to ServiceSelection, then the Test System sends the ChargeParameterDiscoveryReq for the negotiated energy-transfer type (DC or AC), built from the default parameter set.

Checks that the matching schema-specific ChargeParameterDiscoveryRes arrives within the message response window carrying ResponseCode OK. The presence of the energy-transfer-mode sub-element is recorded informationally (the ATS format leaves it a wildcard).

DUT (dut) **PASS** 7.70 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a DC_ChargeParameterDiscoveryRes message	got 'DC_ChargeParameterDiscoveryRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_ATTEN_CHAR.IND after sounding	410.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ChargeParameterDiscoveryRes response time	100.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
energy-transfer-mode element	DC_CPDResEnergyTransferMode	-	info

TC21_SECC_ChargeParameterDiscovery_002

TC21_SECC_ChargeParameterDiscovery_002.

Test objective: out-of-sequence check. GoodCase up to ServiceSelection; the Test System then sends a valid ServiceDiscoveryReq in place of the expected ChargeParameterDiscoveryReq. Checks the SUT answers with a ServiceDiscoveryRes within the message response window, carrying ResponseCode FAILED_SequenceError and no Header signature.

DUT (dut) **PASS** 7.60 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
ServiceDiscoveryRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ChargeParameterDiscovery_003

TC21_SECC_ChargeParameterDiscovery_003.

Test objective: sequence-timeout observation. GoodCase up to ServiceSelection; the Test System then stays silent, sending no ChargeParameterDiscoveryReq. Checks the SUT terminates the TLS connection after the sequence timeout elapses and within the following TLS connection termination timeout. LONG TEST.

DUT (dut) **PASS** 71.49 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout (59..66s)	closed 64.0s after ServiceSelection	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
TCP connection close after failure/timeout	64026.7 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_ChargeParameterDiscovery_004

TC21_SECC_ChargeParameterDiscovery_004.

Test objective: EV-initiated shutdown for a non-critical reason. GoodCase up to ServiceSelection; the Test System then sends a SessionStopReq (ChargingSession Terminate) built from the default parameter set. Checks a SessionStopRes is received within the message response window carrying ResponseCode OK.

DUT (dut) **PASS** 7.51 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
SessionStopRes response time	99.5 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ScheduleExchange_002

TC21_SECC_ScheduleExchange_002.

Test objective: ScheduleExchange completion. GoodCase up to ChargeParameterDiscoveryRes; the Test System sends a ScheduleExchangeReq and, while the SUT answers EVSEProcessing Ongoing, repeats the ScheduleExchangeReq/Res exchange (bounded by the EVCC Ongoing timeout) until the SUT reports EVSEProcessing Finished. Checks the final ScheduleExchangeRes carries a ResponseCode starting with OK and EVSEProcessing Finished.

DUT (dut) **PASS** 6.99 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ScheduleExchangeRes message	got 'ScheduleExchangeRes'	✓
ResponseCode starts with OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ScheduleExchange polls to EVSEProcessing=Finished	1	-	info

TC21_SECC_ScheduleExchange_003

TC21_SECC_ScheduleExchange_003.

Test objective: unknown-SessionID negative. GoodCase up to ChargeParameterDiscoveryRes; the Test System then sends a single ScheduleExchangeReq (default parameter set, negotiated control mode) but stamps its header with a freshly generated SessionID the SUT never assigned. Checks the SUT answers a ScheduleExchangeRes within the message response window carrying ResponseCode FAILED_UnknownSession, with the response Header omitting the Signature and the response omitting GoToPause.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ScheduleExchangeRes message	got 'ScheduleExchangeRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
response Header carries no Signature	None	✓
response omits GoToPause	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ScheduleExchangeRes response time	99.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ScheduleExchange_004

TC21_SECC_ScheduleExchange_004.

Test objective: out-of-sequence check. GoodCase up to ChargeParameterDiscoveryRes; the Test System then sends a valid ServiceDiscoveryReq in place of the expected ScheduleExchangeReq. Checks the SUT answers a ServiceDiscoveryRes within the message response window, carrying ResponseCode FAILED_SequenceError and no Header signature.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ScheduleExchange_005

TC21_SECC_ScheduleExchange_005.

Test objective: sequence-timeout observation. GoodCase up to ChargeParameterDiscoveryRes; the Test System then stays silent, sending no ScheduleExchangeReq. Checks the SUT terminates the TLS connection after the sequence timeout elapses and within the following TLS connection termination timeout. LONG TEST.

DUT (dut) **PASS** 71.49 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout (59..66s)	closed 64.0s after ChargeParameterDiscoveryRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/timeout	64020.8 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_ScheduleExchange_006

TC21_SECC_ScheduleExchange_006.

Test objective: Scheduled-control-mode schedule tuple. GoodCase up to ChargeParameterDiscoveryRes, selecting a Scheduled parameter set in ServiceSelection (the precondition fails if the SUT offers none); the Test System sends a ScheduleExchangeReq in Scheduled control mode and drives the Ongoing→Finished processing loop. Checks the final ScheduleExchangeRes carries ResponseCode starting with OK, EVSEProcessing Finished, and a Scheduled_SEResControlMode whose first ScheduleTuple has a ScheduleTupleID in the range 1..255 and a present ChargingSchedule.

DUT (dut) **PASS** 7.51 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
SUT sends a ScheduleExchangeRes message	got 'ScheduleExchangeRes'	✓
ResponseCode starts with OK	got 'OK'	✓
EVSEProcessing = Finished	got 'Finished' after 1 poll(s)	✓
Scheduled_SEResControlMode carries at least one ScheduleTuple	got {'ScheduleTuple': [{'ChargingSchedule': {'PowerSchedule': {'PowerScheduleEntries': {'PowerScheduleEntry': [{'Duration': 86400, 'Power': {'Exponent': 1, 'Value': 1104}}]}, 'TimeAnchor': 1791698553617}}, 'ScheduleTupleID': 1}]}	✓
ScheduleTupleID is in the range 1..255	got 1	✓
ScheduleTuple carries a ChargingSchedule	got {'PowerSchedule': {'PowerScheduleEntries': {'PowerScheduleEntry': [{'Duration': 86400, 'Power': {'Exponent': 1, 'Value': 1104}}]}, 'TimeAnchor': 1791698553617}}	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ScheduleExchange polls to EVSEProcessing=Finished	1	-	info

TC21_SECC_ScheduleExchange_008

TC21_SECC_ScheduleExchange_008.

Test objective: EV-initiated shutdown for a non-critical reason. GoodCase up to ChargeParameterDiscoveryRes; the Test System then sends a SessionStopReq (ChargingSession Terminate) built from the default parameter set. Checks a SessionStopRes is received within the message response window carrying ResponseCode OK.

DUT (dut) **PASS** 7.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
SessionStopRes response time	99.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_001

TC21_SECC_PowerDelivery_001.

Test objective: GoodCase to the PowerDelivery precondition (DC_PreChargeRes on DC, ScheduleExchangeRes(Finished) on AC); the Test System sends a PowerDeliveryReq with ChargeProgress=Start from the default parameter set, and on AC signals CP State C right after sending it ([V2G20-847]). Checks a PowerDeliveryRes carrying ResponseCode OK is received within the message response window.

DUT (dut) **PASS** 11.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	100.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_002

TC21_SECC_PowerDelivery_002.

Test objective: GoodCase through PowerDelivery(Start) and several ChargeLoop exchanges; the Test System then sends a PowerDeliveryReq with ChargeProgress=Stop from the default parameter set, and on AC signals CP State B right after sending it ([V2G20-848]). Checks a PowerDeliveryRes carrying ResponseCode OK is received within the message response window.

DUT (dut) **PASS** 12.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	50.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_003

TC21_SECC_PowerDelivery_003.

Test objective: GoodCase to the PowerDelivery precondition; the Test System sends a PowerDeliveryReq with ChargeProgress=Start but a freshly generated, unknown SessionID (and on AC signals CP State C right after sending it). Checks the SUT answers a PowerDeliveryRes carrying ResponseCode FAILED_UnknownSession within the message response window, with no EVSEStatus.

DUT (dut) **PASS** 12.20 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
PowerDeliveryRes carries no EVSEStatus	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_004

TC21_SECC_PowerDelivery_004.

Test objective: as _003 but in the Stop context -- GoodCase through the charge loop, then a PowerDeliveryReq with ChargeProgress=Stop and an unknown SessionID (on AC, CP State B right after sending it). Checks the SUT answers a PowerDeliveryRes carrying ResponseCode FAILED_UnknownSession within the message response window, with no EVSEStatus.

DUT (dut) **PASS** 12.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
PowerDeliveryRes carries no EVSEStatus	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	1.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_005

TC21_SECC_PowerDelivery_005.

Test objective: GoodCase to the PowerDelivery precondition; the Test System sends a valid ServiceDiscoveryReq in place of the expected PowerDeliveryReq(Start). Checks the SUT answers a ServiceDiscoveryRes carrying ResponseCode FAILED_SequenceError (and no Header signature) within the message response window.

DUT (dut) **PASS** 12.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_006

TC21_SECC_PowerDelivery_006.

Test objective: as _005 but in the Stop context -- GoodCase through the charge loop, then a valid ServiceDiscoveryReq in place of the expected PowerDeliveryReq(Stop). Checks the SUT answers a ServiceDiscoveryRes carrying ResponseCode FAILED_SequenceError (and no Header signature) within the message response window.

DUT (dut) **PASS** 13.20 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	1.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_PowerDelivery_007

TC21_SECC_PowerDelivery_007.

Test objective: GoodCase to the PowerDelivery precondition; the Test System sends a PowerDeliveryReq with ChargeProgress=Start whose EVPowerProfile requests a power beyond the limit the SUT offered in ScheduleExchangeRes. Checks the SUT answers a PowerDeliveryRes carrying ResponseCode FAILED_EVPowerProfileInvalid. The EVPowerProfile is encoded on the wire. Only a Scheduled ScheduleExchangeRes carries a power limit ([V2G20-478], [V2G20-1559]; in Dynamic mode [V2G20-1070] makes the SECC accept any profile), so the GoodCase selects a Scheduled parameter set in ServiceSelection (the precondition fails if the SUT offers none).

DUT (dut) **FAIL** 12.20 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: ResponseCode = FAILED_EVPowerProfileInvalid – got 'OK'

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_EVPowerProfileInvalid	got 'OK'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	99.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Failure detail (excerpt):

E **AssertionError:** ResponseCode = FAILED_EVPowerProfileInvalid – got 'OK'

TC21_SECC_PowerDelivery_008

TC21_SECC_PowerDelivery_008.

Test objective: GoodCase to the PowerDelivery precondition (Scheduled control mode); the Test System sends a PowerDeliveryReq with ChargeProgress=Start and PowerToleranceAcceptance=PowerToleranceNotConfirmed. Checks the SUT answers either PowerDeliveryRes(FAILED_PowerToleranceNotConfirmed, EVSENotification Terminate) or PowerDeliveryRes(WARNING_PowerToleranceNotConfirmed, EVSENotification Renegotiation) within the message response window; the EVSEStatus's NotificationMaxDelay is recorded. The EVPowerProfile carrying the tolerance flag is encoded on the wire and stays within the offered PowerSchedule, so only the tolerance flag deviates from the default. The GoodCase selects a Scheduled parameter set in ServiceSelection (the precondition fails if the SUT offers none).

DUT (dut) **FAIL** 11.99 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: ResponseCode/EVSENotification = FAILED_PowerToleranceNotConfirmed/Terminate or WARNING_PowerToleranceNotConfirmed/Renegotiation – got 'OK'/None

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode/EVSENotification = FAILED_PowerToleranceNotConfirmed/Terminate or WARNING_PowerToleranceNotConfirmed/ Renegotiation	got 'OK'/None	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.3 ms	-	info
PowerDeliveryRes response time	99.6 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Failure detail (excerpt):

```
E   AssertionError: ResponseCode/EVSENotification = FAILED_PowerToleranceNotConfirmed/Terminate
or WARNING_PowerToleranceNotConfirmed/Renegotiation - got 'OK'/None
```

TC21_SECC_PowerDelivery_009

TC21_SECC_PowerDelivery_009.

Test objective: GoodCase to the PowerDelivery precondition (DC_PreChargeRes on DC, ScheduleExchangeRes(Finished) on AC); the Test System then withholds the PowerDeliveryReq entirely. Checks the SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and the following TLS_Connection_Termination_Timeout. LONG TEST.

DUT (dut) **PASS** 75.89 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout	closed 64.0s after the PowerDelivery precondition	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.1 ms	-	info
TCP connection close after failure/timeout	64024.3 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_PowerDelivery_010

TC21_SECC_PowerDelivery_010.

Test objective: GoodCase through PowerDelivery(Start) and several ChargeLoop exchanges; the Test System then withholds the next PowerDeliveryReq entirely.

Checks the SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and the following TLS_Connection_Termination_Timeout. LONG TEST.

DUT (dut) **PASS** 76.80 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout	closed 63.8s after the last ChargeLoopRes	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/timeout	63771.0 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_PowerDelivery_011

TC21_SECC_PowerDelivery_011.

Test objective: GoodCase to the PowerDelivery precondition (Scheduled control mode); the Test System sends a PowerDeliveryReq(Start) whose EVPowerProfile Scheduled control mode names a SelectedScheduleTupleID that was not offered in ScheduleExchangeRes. Checks the SUT answers a PowerDeliveryRes carrying the tuple-selection failure ResponseCode. The EVPowerProfile is encoded on the wire. The GoodCase selects a Scheduled parameter set in ServiceSelection (the precondition fails if the SUT offers none).

DUT (dut) **FAIL** 12.51 s

FAILURE REASON

harness/test_ev.py:378

AssertionError: ResponseCode = FAILED_ScheduleSelectionInvalid (ATS: FAILED_TariffSelectionInvalid, not schema-encodable) – got 'OK'

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_ScheduleSelectionInvalid (ATS: FAILED_TariffSelectionInvalid, not schema- encodable)	got 'OK'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Failure detail (excerpt):

```
E   AssertionError: ResponseCode = FAILED_ScheduleSelectionInvalid (ATS:
FAILED_TariffSelectionInvalid, not schema-encodable) - got 'OK'
```

TC21_SECC_PowerDelivery_012

TC21_SECC_PowerDelivery_012.

Test objective: as _011 -- GoodCase to the PowerDelivery precondition (Scheduled control mode), then a PowerDeliveryReq(Start) selecting a schedule tuple id that ScheduleExchangeRes never contained. Checks a PowerDeliveryRes carrying the tuple-selection failure ResponseCode (no EVSEStatus). The EVPowerProfile is encoded on the wire. The GoodCase selects a Scheduled parameter set in ServiceSelection (the precondition fails if the SUT offers none).

DUT (dut) **FAIL** 12.00 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: ResponseCode = FAILED_ScheduleSelectionInvalid (ATS: FAILED_TariffSelectionInvalid, not schema-encodable) – got 'OK'

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a PowerDeliveryRes message	got 'PowerDeliveryRes'	✓
ResponseCode = FAILED_ScheduleSelectionInvalid (ATS: FAILED_TariffSelectionInvalid, not schema- encodable)	got 'OK'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.7 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
PowerDeliveryRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Failure detail (excerpt):

```
E   AssertionError: ResponseCode = FAILED_ScheduleSelectionInvalid (ATS:
FAILED_TariffSelectionInvalid, not schema-encodable) - got 'OK'
```

TC21_SECC_PowerDelivery_013

TC21_SECC_PowerDelivery_013.

Test objective: GoodCase to the PowerDelivery precondition; instead of the PowerDeliveryReq the Test System sends a SessionStopReq from the default parameter set (an EV-initiated shutdown for a non-critical reason). Checks the SUT answers a SessionStopRes carrying ResponseCode OK within the message response window.

DUT (dut) **FAIL** 12.00 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: ResponseCode = OK – got 'FAILED_SequenceError'

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'FAILED_SequenceError'	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	99.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Failure detail (excerpt):

E **AssertionError:** ResponseCode = OK – got 'FAILED_SequenceError'

TC21_SECC_ChargeLoop_001

TC21_SECC_ChargeLoop_001.

Test objective: GoodCase up to PowerDeliveryRes(Start), i.e. inside the charge loop; the Test System then sends a valid ServiceDiscoveryReq in place of the expected (DC|AC)_ChargeLoopReq. Checks the SUT answers a ServiceDiscoveryRes carrying ResponseCode FAILED_SequenceError (and no Header signature) within the message response window.

DUT (dut) **PASS** 11.92 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	99.8 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_ChargeLoop_002

TC21_SECC_ChargeLoop_002.

Test objective: GoodCase up to PowerDeliveryRes(Start), i.e. inside the charge loop; the Test System then withholds the (DC|AC)_ChargeLoopReq entirely. Checks the SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and the following TLS_Connection_Termination_Timeout.
LONG TEST.

DUT (dut) **PASS** 75.89 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and TLS_Connection_Termination_Timeout	closed 64.0s after PowerDeliveryRes(Start)	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
TCP connection close after failure/timeout	64028.2 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_SessionStop_001

TC21_SECC_SessionStop_001.

Test objective: GoodCase up to the point a SessionStop is legal (DC: DC_WeldingDetectionRes Finished). The Test System sends a SessionStopReq built from the default parameter set (ChargingSession=Terminate). Checks a SessionStopRes is received within the message response window carrying ResponseCode OK.

DUT (dut) **PASS** 14.01 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = OK	got 'OK'	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	100.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SessionStop_002

TC21_SECC_SessionStop_002.

Test objective: unknown-SessionID negative. GoodCase up to the point a SessionStop is legal (DC: DC_WeldingDetectionRes Finished); the Test System then sends a SessionStopReq (default parameter set, ChargingSession=Terminate) but stamps its header with a freshly generated SessionID the SUT never assigned. Checks the SUT answers a SessionStopRes within the message response window carrying ResponseCode FAILED_UnknownSession, with the response Header omitting the Signature.

DUT (dut) **PASS** 13.59 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = FAILED_UnknownSession	got 'FAILED_UnknownSession'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.6 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SessionStop_003

TC21_SECC_SessionStop_003.

Test objective: GoodCase up to the point a SessionStop is legal; the Test System then sends a valid ServiceDiscoveryReq in place of the expected SessionStopReq. Checks the SUT answers a ServiceDiscoveryRes within the message response window, carrying ResponseCode FAILED_SequenceError and no Header signature.

DUT (dut) **PASS** 13.00 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a ServiceDiscoveryRes message	got 'ServiceDiscoveryRes'	✓
ResponseCode = FAILED_SequenceError	got 'FAILED_SequenceError'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.2 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.4 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
ServiceDiscoveryRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SessionStop_004

TC21_SECC_SessionStop_004.

Test objective: GoodCase up to the point a SessionStop is legal; the Test System then withholds the SessionStopReq entirely and stays silent. Checks the SUT terminates the TLS connection between V2G_SECC_Sequence_Timeout and the following TLS connection termination timeout (i.e. it does not tear the connection down early, and does so within the sequence timeout plus the TLS termination budget). LONG TEST.

DUT (dut) **PASS** 77.49 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT terminates the TLS connection within V2G_SECC_Sequence_Timeout + TLS_Connection_Termination_Timeout (66s) with no SessionStopReq	closed 64.0s after the final response	✓
SUT does not terminate before V2G_SECC_Sequence_Timeout expires (>= 55s)	closed after 64.0s	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.9 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

Measurement	Measured	Target / range	Result
TCP connection close after failure/timeout	64025.3 ms	≤ 5000 ms (CMN_TCP_Connection_Termination_Timeout)	✗

TC21_SECC_SessionStop_005

TC21_SECC_SessionStop_005.

Test objective: GoodCase driving the full message flow for the selected charging mode through to SessionStop, with every request built from the default parameter set. Checks that the SessionID in the header of each received response equals the value the SUT assigned in the SessionSetupRes, for the entire session.

DUT (dut) **PASS** 13.91 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
every response echoes the SessionID assigned in SessionSetupRes	assigned '32ddc39255f9025f'; all responses matched	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	409.8 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info

TC21_SECC_SessionStop_006

TC21_SECC_SessionStop_006.

Test objective: GoodCase up to the point a SessionStop is legal, on an SUT that does not support service renegotiation. The Test System sends a SessionStopReq with ChargingSession=ServiceRenegotiation. Checks the SUT answers a SessionStopRes within the message response window carrying ResponseCode FAILED_NoServiceRenegotiationSupported and no Header signature.

DUT (dut) **PASS** 13.59 s

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = FAILED_NoServiceRenegotiationSupported	got 'FAILED_NoServiceRenegotiationSupported'	✓
response Header carries no Signature	None	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	99.9 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC21_SECC_SessionStop_007

TC21_SECC_SessionStop_007.

Test objective: GoodCase up to the point a SessionStop is legal, under a dynamic control mode, with the SUT never having signalled EVSENotification=Pause. The Test System sends a SessionStopReq with ChargingSession=Pause. Checks the SUT answers a SessionStopRes within the message response window carrying ResponseCode FAILED_PauseNotAllowed and no Header signature.

DUT (dut) **FAIL** 13.00 s**FAILURE REASON**

harness/test_ev.py:378

AssertionError: ResponseCode = FAILED_PauseNotAllowed – got 'OK' (control mode 'Dynamic')

Conformance check	Observed	Result
TLS protocol version = TLSv1.3 [V2G20-2365]	negotiated TLSv1.3	✓
TLS ciphersuite in ISO 15118-20 Table 6 [V2G20-2458]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS ciphersuite = TLS_AES_256_GCM_SHA384 (most preferred offered suite) [V2G20-1857]	negotiated TLS_AES_256_GCM_SHA384	✓
TLS key share named group = secp521r1 (Table 7) [V2G20-1634]	client key_share pinned; handshake completed	✓
SECC certificate key on secp521r1 (ISO 15118-20 Annex B.4, [V2G20-2674] curve)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: key curve secp521r1	✓
SECC certificate signed with ECDSA-SHA512 (ISO 15118-20 Annex B.4)	DC=CPO,C=DE,O=EVerest,CN=SECCCert: signature digest sha512	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
SUT sends a SessionStopRes message	got 'SessionStopRes'	✓
ResponseCode = FAILED_PauseNotAllowed	got 'OK' (control mode 'Dynamic')	✗

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.1 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
SessionStopRes response time	100.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Failure detail (excerpt):

E **AssertionError:** ResponseCode = FAILED_PauseNotAllowed – got 'OK' (control mode 'Dynamic')

Test case details — PIONIX interop testing (vendor-defined)

TC_SECC_CMN_VTB_PionixInterop_010

TC_SECC_CMN_VTB_PionixInterop_010.

Test objective: Interop; after CM_SLAC_PARM the Test System runs the sounding phase (3x CM_START_ATTEN_CHAR.IND + 10x CM_MNBC_SOUND.IND) and measures the delay from the END of sounding to the SUT's CM_ATTEN_CHAR.IND result. Reference timestamp: the last CM_ATTEN_PROFILE.IND observed on the EV-side wire where the rig exposes it; on the tandem SIL the virtual modem injects the profile INDs on the EVSE tap only, so the transmission of the last CM_MNBC_SOUND.IND (which the modem answers with the profile IND within its forwarding latency) is the observable proxy. Pass band (PIONIX interop requirement, strict inequalities): more than 40 ms and less than 100 ms. The IND is also checked against the Annex F template and answered with CM_ATTEN_CHAR.RSP.

DUT (dut) PASS 5.18 s			
Conformance check		Observed	Result
CM_ATTEN_CHAR.IND delay after end of sounding in 40..100 ms (PIONIX interop requirement, strict)		arrived 46.1 ms after the end of sounding (last CM_MNBC_SOUND.IND (tx))	✓
Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.3 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_ATTEN_CHAR.IND after end of sounding	46.1 ms	[40.0, 100.0] ms	✓

TC_SECC_DC_VTB_PionixInterop_001

TC_SECC_DC_VTB_PionixInterop_001.

Test objective: Interop; the Test System runs a complete DC ISO 15118-2 session (eIM, TLS off) up to and including PowerDelivery(Start) and measures the EVSE response time of EVERY exchange before the CurrentDemand loop: supportedAppProtocol, SessionSetup, ServiceDiscovery, PaymentServiceSelection, Authorization, ChargeParameterDiscovery, CableCheck, PreCharge and PowerDelivery -- polled messages (EVSEProcessing Ongoing) contribute one sample per poll. The measurement starts with the supportedAppProtocol handshake: the preceding SLAC matching is a precondition only and expressly NOT measured. Requests are timestamped at V2GTP frame send, responses at V2GTP frame arrival. Checks per message: the minimum shall be ≥ 90 ms (the same PIONIX interop minimum as the CurrentDemand-loop TC) and the maximum $\leq$ the standard's per-message limit V2G_SECC_Msg_Performance_Time (ISO 15118-2 Table 109: 1.5 s, resp. 4.5 s for PowerDeliveryRes). Per-message min/max are recorded; on failure every violating exchange is named exactly (message + sample number) with whether it came too quickly or took too long.

DUT (dut) **PASS** 12.61 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Every DC session-setup response time within bounds (min 90 ms / Table 109 max per message)	all exchanges within bounds	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	411.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
V2G exchanges measured up to PowerDelivery(Start)	22	-	info
AuthorizationRes response time (min of 2)	100.2 ms	≥ 90.0 ms	✓
AuthorizationRes response time (max of 2)	100.8 ms	≤ 1500.0 ms	✓
CableCheckRes response time (min of 12)	100.3 ms	≥ 90.0 ms	✓
CableCheckRes response time (max of 12)	100.8 ms	≤ 1500.0 ms	✓
ChargeParameterDiscoveryRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
ChargeParameterDiscoveryRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓
PaymentServiceSelectionRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓

Measurement	Measured	Target / range	Result
PaymentServiceSelectionRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓
PowerDeliveryRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
PowerDeliveryRes response time (max of 1)	100.3 ms	≤ 4500.0 ms	✓
PreChargeRes response time (min of 2)	100.3 ms	≥ 90.0 ms	✓
PreChargeRes response time (max of 2)	100.4 ms	≤ 1500.0 ms	✓
ServiceDiscoveryRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
ServiceDiscoveryRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓
SessionSetupRes response time (min of 1)	100.4 ms	≥ 90.0 ms	✓
SessionSetupRes response time (max of 1)	100.4 ms	≤ 1500.0 ms	✓
supportedAppProtocolRes response time (min of 1)	100.4 ms	≥ 90.0 ms	✓
supportedAppProtocolRes response time (max of 1)	100.4 ms	≤ 1500.0 ms	✓
PowerDeliveryRes(Stop) response time	101.0 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
SessionStopRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

TC_SECC_DC_VTB_PionixInterop_003

TC_SECC_DC_VTB_PionixInterop_003.

Test objective: Interop; the EVSE's SLAC must be ready to answer the moment it signals HLC availability. Per cycle the Test System plugs in (CP A→B), waits for the 5 % PWM (X2) and IMMEDIATELY sends a single CM_SLAC_PARM.REQ: the cycle passes if a template-valid CM_SLAC_PARM.CNF arrives within the per-attempt window (TT_match_response + transmission delay), and fails if the REQ goes unanswered (got lost) -- deliberately NO C_EV_match_retry retransmissions, stricter than ISO 15118-3's retry allowance, because a swallowed first REQ is exactly the interop flaw probed here. The rest of the SLAC sequence is not performed; the Test System then unplugs, waits for the 5 % duty to disappear (so the next cycle cannot read a stale 5 %), and dwells the operator's global inter-TC sleep (--dut-settle-s, the web UI setting) before the next plug-in. 10 cycles probe for flakiness; the TC passes only if every cycle got its CNF, and the failing cycle numbers are named otherwise. Per-cycle CNF response times are recorded for the report.

DUT (dut) **PASS** 53.36 s

Conformance check	Observed	Result
Every cycle's immediate first CM_SLAC_PARM.REQ answered (10 cycles)	all 10 cycles answered	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.7 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	1.2 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	1.0 ms	≤ 200 ms (TT_match_response)	✓
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓

Measurement	Measured	Target / range	Result
SLAC-ready cycles (immediate first CM_SLAC_PARM.REQ answered)	10	= 10	✓

TC_SECC_DC_VTB_PionixInterop_004

TC_SECC_DC_VTB_PionixInterop_004.

Test objective: Interop; measure how long after plug-in (CP A→B) the EVSE turns on the 5 % PWM (X2, HLC offer). PIONIX interop requirement: < 1 s; the normative ISO 15118-3 bound (par_T_conn_max_comm) is a far looser 8 s. Timing is taken from the Test System's CP duty observation (plug-in command to the first ~5 % duty report), which includes the rig's own reporting latency -- strict-side: a PASS is trustworthy, the measured value can only overstate the true one. Precondition guards that no stale 5 % duty from an earlier session is being read.

DUT (dut) **PASS** 4.62 s

Conformance check	Observed	Result
5% PWM within 1000 ms of plug-in (PIONIX interop requirement)	5% PWM showed 507 ms after plug-in (ISO 15118-3 par_T_conn_max_comm would allow 8 s)	✓

Measurement	Measured	Target / range	Result
5% PWM after plug-in	507.2 ms	≤ 1000.0 ms	✓

TC_SECC_DC_VTB_PionixInterop_007

TC_SECC_DC_VTB_PionixInterop_007.

Test objective: Interop; DIN SPEC 70121 twin of the ISO-2 session-setup timing TC. The Test System negotiates urn:din:70121:2012:MsgDef in the supportedAppProtocol handshake and runs a complete DIN DC session (EIM) up to and including PowerDelivery(ReadyToChargeState=true), measuring the EVSE response time of EVERY exchange: supportedAppProtocol, SessionSetup, ServiceDiscovery, ServicePaymentSelection, ContractAuthentication, ChargeParameterDiscovery, CableCheck, PreCharge and PowerDelivery -- polled messages contribute one sample per poll. The measurement starts with the supportedAppProtocol handshake: SLAC is a precondition only and expressly NOT measured. Requests are timestamped at V2GTP frame send, responses at V2GTP frame arrival. Checks per message: the minimum shall be ≥ 90 ms (PIONIX interop requirement) and the maximum $\leq$ the DIN per-message V2G_SECC_Msg_Performance_Time (DIN TS 70121 Ed.3 Table 75: 1.5 s for every response, incl.

PowerDeliveryRes -- stricter than ISO 15118-2's 4.5 s there). On failure every violating exchange is named exactly (message + sample number) with whether it came too quickly or took too long.

DUT (dut) **PASS** 14.82 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Every DIN 70121 session-setup response time within bounds (min 90 ms / DIN timing-table max per message)	all exchanges within bounds	✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.8 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.5 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
V2G exchanges measured up to PowerDelivery(Start)	22	-	info
CableCheckRes response time (min of 12)	100.3 ms	≥ 90.0 ms	✓
CableCheckRes response time (max of 12)	101.2 ms	≤ 1500.0 ms	✓
ChargeParameterDiscoveryRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
ChargeParameterDiscoveryRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓
ContractAuthenticationRes response time (min of 2)	100.3 ms	≥ 90.0 ms	✓
ContractAuthenticationRes response time (max of 2)	100.4 ms	≤ 1500.0 ms	✓
PowerDeliveryRes response time (min of 1)	100.4 ms	≥ 90.0 ms	✓
PowerDeliveryRes response time (max of 1)	100.4 ms	≤ 1500.0 ms	✓
PreChargeRes response time (min of 2)	100.3 ms	≥ 90.0 ms	✓
PreChargeRes response time (max of 2)	100.3 ms	≤ 1500.0 ms	✓
ServiceDiscoveryRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
ServiceDiscoveryRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓
ServicePaymentSelectionRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
ServicePaymentSelectionRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓
SessionSetupRes response time (min of 1)	100.3 ms	≥ 90.0 ms	✓
SessionSetupRes response time (max of 1)	100.3 ms	≤ 1500.0 ms	✓

Measurement	Measured	Target / range	Result
supportedAppProtocolRes response time (min of 1)	100.4 ms	≥ 90.0 ms	✓
supportedAppProtocolRes response time (max of 1)	100.4 ms	≤ 1500.0 ms	✓

TC_SECC_DC_VTB_PionixInterop_009

TC_SECC_DC_VTB_PionixInterop_009.

Test objective: Interop; a complete DC ISO 15118-2 session is run into the CurrentDemand loop (one OK exchange) and ended normally: PowerDelivery(Stop), CP B, SessionStop(Terminate) -- each with ResponseCode OK -- and the TCP connection closed by the EV. Checks the EVSE then switches its PWM off (X1, 100 % duty; observed via the CP duty, the switch-off delay is recorded). After a 3 s dwell the EV performs 3 B→C→B BCB toggles (0.5 s in C each) on the still-plugged connector. Checks the 5 % PWM returns, then runs a completely new SLAC matching and ISO-2 session (supportedAppProtocol onwards) up to PowerDelivery(Start) and one CurrentDemand exchange. The TC passes if the new session reaches CurrentDemandRes OK -- i.e. the EVSE supports a full session restart via BCB toggle without unplugging.

DUT (dut) **PASS** 31.52 s

Conformance check	Observed	Result
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
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Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Conformance check	Observed	Result
Response echoes the current SessionID		✓
First session reaches a CurrentDemandRes = OK	got 'OK'	✓
Response echoes the current SessionID		✓
PowerDeliveryRes(Stop) = OK	got 'OK'	✓
Response echoes the current SessionID		✓
SessionStopRes(Terminate) = OK	got 'OK'	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
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Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓
Restarted session (after BCB toggles) reaches CurrentDemandRes = OK	got 'CurrentDemandRes' / 'OK'	✓
Response echoes the current SessionID		✓
Response echoes the current SessionID		✓

Measurement	Measured	Target / range	Result
CM_SLAC_PARM.CNF response time	0.9 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.4 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.0 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemandRes response time	101.1 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Stop) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
SessionStopRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PWM off after SessionStop/TCP close	1605.6 ms	-	info
CM_SLAC_PARM.CNF response time	0.6 ms	≤ 200 ms (TT_match_response)	✓
CM_ATTEN_CHAR.IND after sounding	410.0 ms	≤ 1200 ms (TT_EV_atten_results)	✓
CM_SLAC_MATCH.CNF response time	0.5 ms	≤ 200 ms (TT_match_response)	✓
CM_SET_KEY.CNF response time	0.2 ms	-	info
supportedAppProtocolRes response time	100.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
SessionSetupRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
ServiceDiscoveryRes response time	101.3 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PaymentServiceSelectionRes response time	101.2 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓
PowerDeliveryRes(Start) response time	101.2 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
CurrentDemandRes response time	101.4 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Measurement	Measured	Target / range	Result
PowerDeliveryRes(Stop) response time	101.3 ms	V2G_SECC_Sequence_Performance_Time (informational)	✓
SessionStopRes response time	101.7 ms	≤ 2000 ms (V2G_EVCC_Msg_Timeout)	✓

Appendix

Codec self-tests

No codec self-tests were included in this run.

Toolchain / report metadata

pytest version	unknown
Report created	2026-10-11 07:04:04
pytest exit code	1
Report generator	Pionix conformance tester report generator
Generation timestamp	2026-10-11 08:00:25