

LPC Testfallabdeckung im Living Lab Cologne

Willkommen im Living Lab Cologne!

Bitte beachten Sie die Einteilung der Gerätetypen in Spalten **A** und **B**. Des Weiteren finden Sie in Spalte **C** der Übersicht Informationen darüber, welche Tests ohne spezielle Test-Tools wie Ktest durchgeführt werden können.

Zusätzliche Diagnosedaten werden möglicherweise benötigt, wie in den Spalten **C** und **D** angegeben. Diese helfen dabei, den Testprozess möglichst effizient zu gestalten.

Legende:

✓	• Alle erforderlichen Voraussetzungen sind erfüllt
(✓)	• Parameter wie Default- oder geänderte Werte können überprüft werden • Antwortverhalten (ACK/NACK) kann überprüft werden • Status und Statusänderungen können nicht überprüft werden
((✓))	• Mit einer abstrakteren Sicht auf die Testfälle kann das Verhalten des DUT auf korrekte Umsetzung überprüft werden Beispiel 1: Wenn die Verbindung aufrechterhalten wird, dann ist die Kommunikation (Exchange Heartbeat) stabil Beispiel 2: Wird eine Limitierung über einen bestimmten Zeitraum eingehalten, ist das Verhalten des Geräts LPC-konform
((✓))*	• Negative (ungültige) Werte erforderlich • Ein Gerät muss in den (Ausnahme-)Zustand versetzt werden können, der es erlaubt, eine Limitierung abzulehnen
-	• Kann nicht ausgeführt werden (z.B. aufgrund negativer Werte, Schwarzstarttests oder interner Parameterprüfungen)

A

B

C

D

E

Testfall	DUT (Aktor Typ)	Steuerbox, Mehrwertmodul, EMS	EMS, HVAC, EVSE, ...	Gerätetest (mit Ktest)		Ende-zu-Ende Test (ohne Ktest)
				Diagnosedaten	Keine Diagnosedaten	
ATC_COM_PT_EGHeartbeat_001	Energy Guard	✓	-	✓	✓	((✓))
ATC_COM_PT_EGConnection_001	Energy Guard	✓	-	✓	✓	((✓))
ATC_COM_PT_EGConnection_002	Energy Guard	✓	-	✓	✓	((✓))
ATC_COM_PT_EGConnection_003	Energy Guard	✓	-	-	-	((✓))
ATC_COM_PT_EGMessages_001	Energy Guard	✓	-	✓	✓	((✓))
ATC_COM_PT_EGMessages_002	Energy Guard	✓	-	✓	✓	-
ATC_COM_PT_EGMessages_003	Energy Guard	✓	-	✓	✓	((✓))
ATC_COM_PT_EGMessages_004	Energy Guard	✓	-	✓	✓	((✓))
ATC_COM_PT_CSHHeartbeat_001	Controllable System	-	✓	✓	✓	((✓))
ATC_COM_NT_CSCConnection_001	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSCConnection_002	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSCConnection_003	Controllable System	-	✓	-	-	((✓))*
ATC_COM_PT_CSCConnection_004	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSCConnection_005	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSCConnection_006	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSCConnection_007	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSCConnection_008	Controllable System	-	✓	✓	-	-
ATC_COM_PT_CSCConnection_009	Controllable System	-	✓	-	-	((✓))
ATC_COM_PT_CSInit_001	Controllable System	-	✓	✓	✓	-
ATC_COM_PT_CSInit_002	Controllable System	-	✓	✓	✓	-
ATC_COM_PT_CSInit_003	Controllable System	-	✓	✓	(✓)	-
ATC_COM_NT_CSLimited_001	Controllable System	-	✓	-	-	((✓))*
ATC_COM_PT_CSLimited_002	Controllable System	-	✓	✓	(✓)	-
ATC_COM_NT_CSUnlCntrl_001	Controllable System	-	✓	-	-	((✓))*
ATC_COM_PT_CSUnlCntrl_002	Controllable System	-	✓	✓	-	-
ATC_COM_PT_CSUnlCntrl_003	Controllable System	-	✓	✓	-	-
ATC_COM_PT_CSFS_001	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSFS_002	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSFS_003	Controllable System	-	✓	✓	(✓)	-
ATC_COM_NT_CSUnlAuto_001	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSUnlAuto_002	Controllable System	-	✓	✓	✓	-
ATC_COM_PT_CSTransition1_001	Controllable System	-	✓	-	-	((✓))*
ATC_COM_PT_CSTransition1_002	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition2_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition3_001	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSTransition3_002	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSTransition4_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition5_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition6_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition6_002	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition7_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition8_001	Controllable System	-	✓	-	-	((✓))*
ATC_COM_PT_CSTransition8_002	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition9_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition10_001	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSTransition10_002	Controllable System	-	✓	✓	(✓)	-
ATC_COM_PT_CSTransition11_001	Controllable System	-	✓	-	-	((✓))*
ATC_COM_PT_CSTransition11_002	Controllable System	-	✓	✓	(✓)	((✓))
ATC_COM_PT_CSTransition12_001	Controllable System	-	✓	✓	(✓)	((✓))
ATC_INS1_PT_CSTransition1_001	Controllable System	-	✓	✓	(✓)	((✓))*
ATC_INS2_PT_CSTransition1_001	Controllable System	-	✓	✓	(✓)	((✓))*

MPC Testfallabdeckung im Living Lab Cologne

Legende:

✓	• Alle erforderlichen Voraussetzungen sind erfüllt
(✓)	• Kann mit externen Messgeräten geprüft werden
-	• Kann nicht ausgeführt werden (z.B. interner Parameterprüfungen)

Testfall	DUT (Aktor Typ)	Gerätetest (mit Ktest)		Ende-zu-Ende Test (Daten beider Geräte)	Ende-zu-Ende Test (Kein Ktest / Daten)
		Diagnosedaten	Keine Diagnosedaten / UI		
ATC_COM_PT_MUPolling_001	Monitored Unit	-	-	-	-
ATC_COM_PT_MUNotification_001	Monitored Unit	✓	✓	-	-
ATC_SCE1_PT_MUTotalActivePower_001	Monitored Unit	✓	✓	✓	-
ATC_SCE1_PT_MUPhaseActivePower_001	Monitored Unit	✓	✓	✓	-
ATC_SCE1_PT_MUPhaseActivePower_002	Monitored Unit	✓	✓	✓	-
ATC_SCE1_PT_MUPhaseActivePower_003	Monitored Unit	✓	✓	✓	-
ATC_SCE2_PT_MUTotalConsumedEnergy_001	Monitored Unit	✓	✓	✓	-
ATC_SCE2_PT_MUTotalConsumedEnergy_002	Monitored Unit	-	-	✓	-
ATC_SCE2_PT_MUTotalProducedEnergy_001	Monitored Unit	-	-	✓	-
ATC_SCE2_PT_MUTotalProducedEnergy_002	Monitored Unit	✓	✓	✓	-
ATC_SCE3_PT_MUActiveACCurrent_001	Monitored Unit	✓	✓	✓	-
ATC_SCE3_PT_MUActiveACCurrent_002	Monitored Unit	✓	✓	✓	-
ATC_SCE3_PT_MUActiveACCurrent_003	Monitored Unit	✓	✓	✓	-
ATC_SCE4_PT_MUACVoltage_001	Monitored Unit	✓	✓	✓	-
ATC_SCE4_PT_MUACVoltage_002	Monitored Unit	✓	✓	✓	-
ATC_SCE4_PT_MUACVoltage_003	Monitored Unit	✓	✓	✓	-
ATC_SCE4_PT_MUACVoltage_004	Monitored Unit	✓	✓	✓	-
ATC_SCE4_PT_MUACVoltage_005	Monitored Unit	✓	✓	✓	-
ATC_SCE4_PT_MUACVoltage_006	Monitored Unit	✓	✓	✓	-
ATC_SCE5_PT_MUFrequency_001	Monitored Unit	✓	✓	✓	-
ATC_COM_PT_MAPolling_001	Monitoring Appliance	-	-	-	-
ATC_COM_PT_MANotification_001	Monitoring Appliance	✓	-	-	-
ATC_SCE1_PT_MATotalActivePower_001	Monitoring Appliance	✓	-	✓	(✓)
ATC_SCE1_NT_MATotalActivePower_002	Monitoring Appliance	✓	-	✓	(✓)
ATC_SCE1_PT_MAPhaseActivePower_001	Monitoring Appliance	✓	-	✓	-
ATC_SCE1_NT_MAPhaseActivePower_002	Monitoring Appliance	✓	-	✓	-
ATC_SCE1_PT_MAPhaseActivePower_003	Monitoring Appliance	✓	-	✓	-
ATC_SCE1_NT_MAPhaseActivePower_004	Monitoring Appliance	✓	-	✓	-
ATC_SCE1_PT_MAPhaseActivePower_005	Monitoring Appliance	✓	-	✓	-
ATC_SCE1_NT_MAPhaseActivePower_006	Monitoring Appliance	✓	-	✓	-
ATC_SCE2_PT_MATotalConsumedEnergy_001	Monitoring Appliance	✓	-	✓	-
ATC_SCE2_NT_MATotalConsumedEnergy_002	Monitoring Appliance	✓	-	✓	-
ATC_SCE2_PT_MATotalProducedEnergy_001	Monitoring Appliance	✓	-	✓	-
ATC_SCE2_NT_MATotalProducedEnergy_002	Monitoring Appliance	✓	-	✓	-
ATC_SCE3_PT_MAAActiveACCurrent_001	Monitoring Appliance	✓	-	✓	-
ATC_SCE3_NT_MAAActiveACCurrent_002	Monitoring Appliance	✓	-	✓	-
ATC_SCE3_PT_MAAActiveACCurrent_003	Monitoring Appliance	✓	-	✓	-
ATC_SCE3_NT_MAAActiveACCurrent_004	Monitoring Appliance	✓	-	✓	-
ATC_SCE3_PT_MAAActiveACCurrent_005	Monitoring Appliance	✓	-	✓	-
ATC_SCE3_NT_MAAActiveACCurrent_006	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_PT_MAACVoltage_001	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_NT_MAACVoltage_002	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_PT_MAACVoltage_003	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_NT_MAACVoltage_004	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_PT_MAACVoltage_005	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_NT_MAACVoltage_006	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_PT_MAACVoltage_007	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_NT_MAACVoltage_008	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_PT_MAACVoltage_009	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_NT_MAACVoltage_010	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_PT_MAACVoltage_011	Monitoring Appliance	✓	-	✓	-
ATC_SCE4_NT_MAACVoltage_012	Monitoring Appliance	✓	-	✓	-
ATC_SCE5_PT_MAFrequency_001	Monitoring Appliance	✓	-	✓	-
ATC_SCE5_NT_MAFrequency_002	Monitoring Appliance	✓	-	✓	-