

OEM/OEM Supplier Name

Sr. No.	Description	Author	Version
1	Initial version of eCall Requirements	UVW	v_1.0
2	Addition of Abbreviations sheet, Reordering of the requirements IDs	UVW	v_1.1
3	Requirements sheet : 1) Req001 - reducing ambiguity in the requirement 2) ASIL Rating, Cybersecurity requirement, Variant type, Legal Certification requirement, Verification Method and Verification Owner are add to requirements	UVW	v_1.1
4	Update in the introduction sheet	UVW	v_1.1
5	Adding more requirments Correction in ASIL, CyberSecurity, Legal Certification attributes for some requirements	PQR	v_1.2

Sheet	Description
Introduction	Contains version information, description of the updates in a version, Author of the update.
Abbreviations	Represent all the technical & non-technical long forms used in Requirements sheet.
Requirements	Contains all the requirements with its attributes.
Appendix	This sheet provide information of the attributes.

Change Management	Stike off the content which needs to modified and add the new content in red color font.
Version Control	Increase the version of the document when releasing new requirements also update the version in the content table in columnne P

Abbreviations

3GPP	Telematics Control Unit
5G-NSA	5th Generation - Non-Standalone
5G-SA	5th Generation - Standalone
ETSI	European Telecommunications Standards Institute
GSM	Global System for Mobile Communications
GSMA	Global System for Mobile Communications Association
KL15	Klemme15 - Ignition switched live
KL30	Klemme30 - Battery permanent live
LTE	Long Term Evolution
MSD	Minimum Set Data
PSAP	Public Safety Answering Point
RAT	Radio Access Technology
TCU	Telematics Control Unit
TSP	Third Party Service
UMTS	Universal Mobile Telecommunications System
VIN	Vehicle Identification Number
VoLTE	Voice Over LTE

Requirement_ID	Content	Header	Qualification_Method	Artifact_Type	Item_Requirement_St	Assignee	new_Commentary_Discip	Requirement_Type	System_Elements	ASIL_Rating	Cybersecurity	Key_Requirement	Legal_Certification_Requirement	Variant	Verification_Method	Verification_Owner	
Req001	TCU shall turn ON when driver turn ON KL30 & KL15, and TCU shall turn OFF when driver turn OFF KL30 or KL15.	Clamp control	TCU or Modem supplier is responsible for providing the test result to Brand for approval	System Requirement	Approved	ABC	None	HW-SW	System	Clamp control	A	FALSE	TRUE	N/A	XYZ_Model_2025	H/W Integration	Modem Functional team
Req002	TCU shall start searching for corresponding eNodeB cells when KL30 & KL15 is ON	Network selection	TCU or Modem Connectivity team supplier is responsible for providing the test result to Brand for approval	System Requirement	Approved	XYZ	None	HW-SW	System	Clamp control	A	FALSE	TRUE	N/A	XYZ_Model_2025	H/W Integration	Modem Functional team
Req003	TCU shall operate on default bootstrap profile when the device is roaming it in the home country	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req004	TCU should perform network registration to the primary MNO based on the current profile on the eSIM	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req005	TCU should attached to it primary network based on MCC/MNC combination of it IMSI	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req006	TCU shall perform Operation profile download when the device is roaming in the foreign country also depending on the OEM and MNO contracts.	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req007	TCU shall start searching for corresponding eNodeB cells when KL30 & KL15 is ON	Network selection	TCU or Modem Connectivity team supplier is responsible for providing the test result to Brand for approval	System Requirement	Approved	XYZ	None	HW-SW	System	Clamp control	A	FALSE	TRUE	N/A	XYZ_Model_2025	H/W Integration	Modem Functional team
Req008	TCU shall operate on default bootstrap profile when the device is roaming it in the home country	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req009	TCU should perform network registration to the primary MNO based on the current profile on the eSIM	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req010	TCU should attached to it primary network based on MCC/MNC combination of it IMSI	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req011	TCU shall perform Operation profile download when the device is roaming in the foreign country also depending on the OEM and MNO contracts.	Network selection	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req012	TCU shall send a PDN Connection to the network to register APNs	Network registration	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req013	TCU shall be VoLTE capable when registered to LTE or higher RATs if IMS registration is successful.	Network registration	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req014	TCU may be configured with eCall only mode based on the vehicle configuration i.e. TCU perform network registration when eCall is triggered	TCU configuration	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req015	TCU shall receive correct GPS location information i.e. correct latitude and longitude from the GMS driver	TCU configuration	Connectivity team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	XYZ	None	HW-SW	Functional	Connectivity	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	Connectivity Team
Req016	TCU or vehicle shall be equipped with eCall service regardless of whether or not a vehicle owner opts for a TPS eCall service	TCU configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req017	TCU shall receive eCall dataset from eCall Application which initially is received once TCU is online and registered to its OEM server.	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	FALSE	XYZ_Model_2025	SIT	eCall Functional Team
Req018	TCU shall receive eCall dataset from eCall Application via vehicle diagnostics based on the regional requirements.	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	FALSE	XYZ_Model_2025	SIT	eCall Functional Team
Req019	Offline regions or eCall only regions shall have different eCall number, refer to the MNO configuration table	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	FALSE	XYZ_Model_2025	SIT	eCall Functional Team
Req020	eCall dataset shall include the type of eCall i.e. TPS or eCall, eCall Numbers, T9 & T10 times.	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	FALSE	XYZ_Model_2025	SIT	eCall Functional Team
Req021	TCU shall be able to trigger manual EU eCall or Private eCall when TCU is registered in any RAT i.e. GMS/UMTS/LTE/5G-NSA/5G-SA	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	HW-SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req022	TCU shall be able to trigger TPS (Private eCall)/EU eCall automatically when Airbags are initiated when unit is registered in any RAT i.e. GMS/UMTS/LTE/5G-NSA/5G-SA	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	HW-SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req023	TCU shall be able to trigger manual TPS (Third Part Service or Private eCall) eCall when TCU is registered in any RAT i.e. GMS/UMTS/LTE/5G-NSA/5G-SA	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	HW-SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req024	TCU shall be cable to trigger automatic TPS (Third Part Service or Private eCall) eCall when TCU is registered in any RAT i.e. GMS/UMTS/LTE/5G-NSA/5G-SA	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	HW-SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req025	TCU shall be able to trigger manual TPS (Third Part Service) eCall when TCU is registered in VoLTE in case of Private eCall.	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	HW-SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req026	TCU shall be cable to trigger automatic TPS (Third Part Service) eCall when TCU is registered in VoLTE in case of Private eCall.	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	HW-SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req027	TCU shall be perform CSFB when EU eCall is triggered in LTE or higher RATs.	eCall configuration	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req028	Two-way voice communication shall be established between the IVS (In-Vehicle System) and the PSAP in case of EU eCall.	MO eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req029	Two-way voice communication shall be established between the IVS (In-Vehicle System) and TSP (Third Part Service) in case Private eCall.	MO eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req030	The quality of voice communication shall be verified by validation team in all RATs in case of MO call.	MO eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req031	TCU should be able to receive a clear-down eCall request from the PSAP or hang-up the eCall.	MT eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req032	TCU shall receive a call-back from the PSAP in case of EU eCall.	MT eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req033	TCU shall receive a call-back from the PSAP in case of Private eCall.	MT eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req043	The quality of voice communication shall be verified by validation team in all RATs in case of MT call.	MT eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req034	TCU shall send MSD (Minimum Set Data) via SMS when an eCall is triggered in all RATs	MSD Transmission	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req035	TCU shall send MSD (Minimum Set Data) via SMS and SIP when an TPS eCall is triggered in LTE or higher RATs.	MSD Transmission	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req036	MSD data transmitted via SMS or SIP shall contain VIN, color of the vehicle, GPS Location (latitude/longitude), total number of Passengers in Vehicle	MSD Transmission	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req037	MSD data shall indicate if the activation type of the eCall is Manual eCall or Automatic eCall or Test Call	MSD Transmission	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req038	TCU Unit shall received a MSD retransmission request from the PSAP or TPS to update MSD information. This requirement should be applicable for initial eCall trigger and call-back from PSAP/TSP.	MSD Transmission	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req039	TCU shall enter the wait callback state when initial eCall session is ended in case of accident or passenger in the vehicle cannot reach the agent.	Callback eCall	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req040	TCU shall perform automatic redials if the initial call set-up attempt fails due to busy, network congestion or PSAP out-of-service.	Redials scenario	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req041	TCU shall perform automatic redials if the initial call set-up attempt fails due no answer. This can be verified with audio monitor that vehicle received "ring-back tone". In this case automatic redials attempts should be completed within 2 minutes as defined in ETSI EN 16072-15]	Redials scenario	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req042	Two-way voice communication shall be established between IVS (In-Vehicle System) and the PSAP or TSP after MSD retransmission. This requirement should be applicable for initial eCall trigger and call-back from PSAP/TSP.	eCall Generic	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req043	TCU shall have only one active eCall service at a time i.e. either TSP or EU eCall is activate and other is deactivated.	eCall Generic	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req044	TCU shall fallback to EU eCall when TSP is not functional or the TSP cannot be reached due to unavailability of the service in that region or market.	eCall Generic	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req045	eCall only mode: TCU shall perform mobile network registration only when the eCall is triggered.	eCall only	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team
Req046	In case of eCall only mode MO eCall shall be as Req032 other MSD transmission shall be as Req023 and MT eCall shall be as Req031	eCall only	eCall team supplier is responsible for providing the test result to Brand for approval	Functional Requirement	Approved	PQRS	None	SW	Functional	eCall	A	TRUE	TRUE	TRUE	XYZ_Model_2025	SIT	eCall Functional Team