

अनिवार्य आवश्यकताएँ

संख्या : TEC23231911

Essential Requirements

ER No. : TEC23231911

Feedback Device

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Essential Requirements for:

Feedback Device

Certification Scheme: **GCS**

Product Fee Group: **B**

This ER covers all types of IoT Feedback Devices with Cellular / non-cellular LPWAN Connectivity

Note: Annexures referred to in this ER are Annexures as mentioned in "Annexures to ERs" No. TEC/SD/DD/TCP-222/02/June19 as updated from time to time and available on MTCTE portal.

This product has the following variants:

1. Feedback Device

1. Variant 1 : Feedback Device

1.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
1.1.1	Conducted And Radiated Emission - Class B	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
1.1.2	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
1.1.3	Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
1.1.4	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
1.1.5	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
1.1.6	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
1.1.7	Immunity to RF Field Induced Conducted	TEC EMI EMC Standard EN/IEC:61000-4-6.

	Disturbance	Annex-B
1.1.8	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
1.1.9	IT Equipment Safety	IS 13252-1 or IEC:60950-1 or IEC 62368-1. Annex-A1
1.1.10	GPS Compliance	Compliance to GoI notification GSR no. 436(E).
1.1.11	IoT Dev - Non-0 IMEI or MEID or Unique MAC	Annex-M
1.1.12	IPv6 as per RFC 2460	RFC 2460 / RFC 8200 . Annex-P7
1.1.13	IPv6 Dual Stack as per RFC 4213	RFC 4213 clause 2.1 and 2.2. Annex-P6

1.2 Interface 1 : CDMA

S.No.	Parameter Name	Standard Name
1.2.1	CDMA Int Parameters	1xS0011 or EN 301 908-04 CDMA. Annex-F9
1.2.2	Operating Frequency for CDMA Int	NFAP. Annex-F

1.3 Interface 2 : GSM or GPRS or EDGE

S.No.	Parameter Name	Standard Name
1.3.1	Int Parameters for GSM or GPRS or EDGE	3GPP TS 51 010-1 or EN 301 511. Annex-F10
1.3.2	Operating Frequency for GSM or GPRS or EDGE Int	NFAP. Annex-F

1.4 Interface 3 : LTE or LTE-A

S.No.	Parameter Name	Standard Name
1.4.1	Int Parameters for LTE or LTE-A	3GPP TS 36.521-1 or EN 301 908-13. Annex-F12
1.4.2	Operating Frequency for LTE or LTE-A Int	NFAP. Annex-F

1.5 Interface 4 : WCDMA or HSPA

S.No.	Parameter Name	Standard Name
1.5.1	Operating Frequency for WCDMA or HSPA	NFAP. Annex-F

	Int	
1.5.2	WCDMA or HSPA Int Parameters	3GPP TS 34.121-1 or EN 301 908-2. Annex-F11

1.6 Interface 5 : LPWAN - LoRa

S.No.	Parameter Name	Standard Name
1.6.1	EIRP LoRa	EN 300 220-1 or FCC part 15.247. Annex-G2
1.6.2	Frequency of Operation for LoRa Int	EN 300 220-1 or NFAP. WPC GSR. Annex-G1
1.6.3	Maximum Transmit Power LoRa	EN 300 220-1 or FCC part 15.247. Annex-G2
1.6.4	Unwanted Emission in Spurious Domain LoRa	EN 300 220-1 or FCC part 15.247. Annex-G3