

अनिवार्य आवश्यकतायें
संख्या: TEC23232106

Essential Requirements
ER No.: TEC23232106

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 Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
1.1.3	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
1.1.4	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
1.1.5	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
1.1.6	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
1.1.7	Immunity to AC Voltage Dips and Short	TEC EMI EMC Standard EN/IEC:61000-4-

	Interruptions	11. Annex-B
1.1.8	Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
1.1.9	IT Equipment Safety	IS 13252-1 or IEC:60950-1 or IEC 62368-1. Annex-A1
1.1.10	IoT Dev - Non-0 IMEI or MEID or Unique MAC	Annex-M
1.1.11	GPS Compliance	Compliance to Gol notification GSR no. 436(E).
1.1.12	Dual IP Parameters	RFC 4213. Annex-P6
1.1.13	IPV6 Parameters	RFC 2460 / 8200. Annex-P7
1.1.14	IPV4 Parameters	RFC 791. Annex-P6

1.2 Interface 1 : LTE or LTE-A

S.No.	Parameter Name	Standard Name
1.2.1	Int Parameters for LTE or LTE-A	3GPP TS 36.521-1 or EN 301 908-13. Annex-F12
1.2.2	Operating Frequency for LTE or LTE-A 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 : WCDMA or HSPA

S.No.	Parameter Name	Standard Name
1.4.1	Operating Frequency for WCDMA or HSPA Int	NFAP. Annex-F
1.4.2	WCDMA or HSPA Int Parameters	3GPP TS 34.121-1 or EN 301 908-2. Annex-F11

1.5 Interface 4 : CDMA

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

1.6 Interface 5 : LPWAN - LoRa

S.No.	Parameter Name	Standard Name
1.6.1	EIRP LoRa	WPC GSR 564(E). Annex- G5(5.2).
1.6.2	Maximum Transmit Power LoRa	WPC GSR 564(E). Annex- G5(5.3).
1.6.3	Frequency of Operation for LoRa Int	Latest NFAP. Annex- G5(5.1)
1.6.4	Basic RF Requirements for LPWAN-LoRA	Annex- G5(5.4 to 5.18). ETSI EN 300 220-2 V3.2.1