

अनिवार्य आवश्यकताएँ

संख्या : TEC28982110

Essential Requirements

ER No. : TEC28982110

Smart Watch

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Government of India

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Essential Requirements for:

Smart Watch

Certification Scheme: **GCS**

Product Fee Group: **B**

This ER covers Smart Watch with Cellular 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. Smart Watch

1. Variant 1 : Smart Watch

1.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
1.1.1	Conducted And Radiated Emission - Class A	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
1.1.2	Conducted And Radiated Emission - Class B	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
1.1.3	Dual IP Parameters	RFC 4213. Annex-P6
1.1.4	GPS Compliance	Compliance to Gol notification GSR no. 436(E).
1.1.5	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
1.1.6	Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
1.1.7	Immunity to Electrostatic Discharge (Level 2 or Level 3)	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B

1.1.8	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
1.1.9	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
1.1.10	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
1.1.11	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
1.1.12	IoT Dev - Non-0 IMEI or MEID or Unique MAC	Annex-M
1.1.13	IPV4 Parameters	RFC 791. Annex-P6
1.1.14	IPV6 Parameters	RFC 2460 / 8200. Annex-P7
1.1.15	IT Equipment Safety	IS 13252-1 or IEC:60950-1 or IEC 62368-1. Annex-A1
1.1.16	SAR Value for IoT Devices	Annex-M

1.2 Interface 1 : BLE for IoT

S.No.	Parameter Name	Standard Name
1.2.1	Basic RF Requirements for BLE Interface	Annex G4 (4.4 to 4.15). ETSI EN 300 328 V2.2.2.
1.2.2	EIRP for BLE Interface	WPC GSR 45(E). Annex-G4 (4.2)
1.2.3	Frequency of Operation for BLE Interface	Latest NFAP. Annex-G4(4.1)
1.2.4	Maximum Transmitted Power for BLE Int	WPC GSR 45(E). Annex-G4 (4.3)

1.3 Interface 2 : CDMA

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

1.4 Interface 3 : GSM or GPRS or EDGE

S.No.	Parameter Name	Standard Name
1.4.1	Int Parameters for GSM or GPRS or EDGE	3GPP TS 51 010-1 or EN 301 511. Annex-F10

1.4.2	Operating Frequency for GSM or GPRS or EDGE Int	NFAP. Annex-F
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1.5 Interface 4 : LTE or LTE-A

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

1.6 Interface 5 : NFC for IoT

S.No.	Parameter Name	Standard Name
1.6.1	Basic RF Requirements for NFC - Int	Annex- G6 (6.2 to 6.13). ETSI EN 300 330 V2.1.1
1.6.2	Frequency of Operation for NFC Int	Latest NFAP. Annex-G6(6.1)

1.7 Interface 6 : RFID for IoT

S.No.	Parameter Name	Standard Name
1.7.1	Basic RF Requirement RFID	Annex G5 (5.4 to 5.18) and / or Annex G6 (6.2 to 6.13)
1.7.2	EIRP for RFID Interface	WPC GSR 564(E). Annex-G5(5.2)
1.7.3	Frequency of Operation for RFID Int	NFAP. Annex G5(5.1) and / or Annex G6(6.1)
1.7.4	Maximum Transmit Power RFID for IoT	WPC GSR 564(E). Annex-G5(5.3)

1.8 Interface 7 : WCDMA or HSPA

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

1.9 Interface 8 : WiFi

S.No.	Parameter Name	Standard Name
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1.9.1	2.4 GHz WiFi Radio Conformance	ETSI EN 300 328 or FCC CFR47 pt 15.247 or FCC CFR47 pt 15.249. Annex-G3
1.9.2	5 GHz WiFi Radio Conformance	ETSI EN 301 893 or FCC CFR47 pt 15.407 or FCC CFR47 pt 15.249. Annex-G3
1.9.3	EIRP for Wifi Interface	Latest NFAP and GSRs issued by DoT WPC. Annex-G2
1.9.4	Frequency for WiFi equipments	DoT WPC GSR No. 45(E) 1048(E). Annex-G1