

अनिवार्य आवश्यकताएँ

संख्या : TEC10012409

Essential Requirements

ER No. : TEC10012409

FIXED WIRELESS PHONE

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दूरसंचार अभियांत्रिकी केंद्र

भारत सरकार

खुर्शीद लाल भवन, जनपथ, नई दिल्ली - 110001, भारत

Telecommunication Engineering Centre

Government of India

Khurshid Lal Bhawan, Janpath, New Delhi-110001, INDIA

Essential Requirements for:
FIXED WIRELESS PHONE

Certification Scheme: **SCS**

Product Fee Group: **C**

This ER covers all types of Fixed Wireless Phone having cellular interface.

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. Fixed Wireless Phone with VOICE and DATA Facility
2. Fixed Wireless Phone with Voice Facility only

1. Variant 1 : Fixed Wireless Phone with VOICE and DATA Facility

1.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
1.1.1	Battery Safety	IS 16046. EN/IEC 62133. Annex-A2
1.1.2	Conducted And Radiated Emission - Class B	TEC EMI EMC Standard CISPR 32 EN55032. Annex-B
1.1.3	Dual IP Layer Operation RFC 4213 - Address	RFC 4213 Cl. 2.1. Annex-P6
1.1.4	Dual IP Layer Operation RFC 4213 - DNS	RFC 4213 Cl. 2.1 and 2.2. Annex-P6
1.1.5	FWP Emergency Support- call on 112	DoT order 3GPP2 C.S0023 TS 22.101 TS 24.008. Annex-M
1.1.6	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
1.1.7	Immunity to DC Voltage Dips and Short	EN/IEC:61000-4-29. Annex-B

	Interruptions	
1.1.8	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
1.1.9	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
1.1.10	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
1.1.11	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
1.1.12	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
1.1.13	IPV6 Extn Header Parameters	RFC 2460 or RFC 8200 . Annex-P7
1.1.14	IPV6 Header Parameters	RFC 2460 / RFC 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	Mobile device - Non Zero IMEI or MEID or ESN	Annex-M
1.1.17	Mobile Emergency Support - Panic Button	G.S.R. No. 436 (E) 3GPP TS 22.101 C.S0023. Annex-M

1.2 Interface 1 : 10 100 1000 BASE-T Ethernet

S.No.	Parameter Name	Standard Name
1.2.1	Link Speed and Autonegotiation Test GE	IEEE 802.3. Annex-H

1.3 Interface 2 : 10 100 BASE-T Ethernet

S.No.	Parameter Name	Standard Name
1.3.1	Link Speed and Autonegotiation Test FE	IEEE 802.3 Annex-H

1.4 Interface 3 : 5G NR (FR1)

S.No.	Parameter Name	Standard Name
1.4.1	Int Parameters for 5G NR (FR1)	3GPP TS 38.521-1. Annex-F14
1.4.2	Operating frequency for 5G NR (FR1)	NFAP. Annex-F

1.5 Interface 4 : 5G NR- FR1 and FR2 interworking with other Radios

S.No.	Parameter Name	Standard Name
1.5.1	Int Parameters for 5G NR-FR1 and FR2 interworking with other Radios	3GPP TS 38.521-3. Annex-F13
1.5.2	Operating frequency for 5G NR- FR1 and FR2 interworking with other Radios	NFAP. Annex-F

1.6 Interface 5 : 5G NR (FR2)

S.No.	Parameter Name	Standard Name
1.6.1	Int Parameters for 5G NR (FR2)	3GPP TS 38.521-2. Annex-F15
1.6.2	Operating frequency for 5G NR (FR2)	NFAP. Annex-F

1.7 Interface 6 : Bluetooth Low Energy

S.No.	Parameter Name	Standard Name
1.7.1	EIRP for BLE Interface	WPC GSR 45(E). Annex-G4 (4.2)
1.7.2	Frequency of Operation for BLE Interface	Latest NFAP. Annex-G4(4.1)
1.7.3	Spurious Emission for BLE Interface	Annex G3

1.8 Interface 7 : GSM or GPRS or EDGE

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

1.9 Interface 8 : LTE or LTE-A

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

1.10 Interface 9 : WCDMA or HSPA

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

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

1.11 Interface 10 : WiFi

S.No.	Parameter Name	Standard Name
1.11.1	2.4 GHz WiFi Radio Conformance	ETSI EN 300 328 or FCC CFR47 pt 15.247 or FCC CFR47 pt 15.249. Annex-G3
1.11.2	5 GHz WiFi Radio Conformance	ETSI EN 301 893 and or ETSI EN 302 502 or FCC CFR47 pt 15.407 or FCC CFR47 pt 15.249. Annex-G3
1.11.3	EIRP for Wifi Interface	Latest NFAP and GSRs issued by DoT WPC. Annex-G2
1.11.4	Frequency for WiFi equipments	DoT WPC GSR No. 45(E) 1048(E). Annex-G1

2. Variant 2 : Fixed Wireless Phone with Voice Facility only

2.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
2.1.1	Battery Safety	IS 16046. EN/IEC 62133. Annex-A2
2.1.2	Conducted And Radiated Emission - Class B	TEC EMI EMC Standard CISPR 32 EN55032. Annex-B
2.1.3	FWP Emergency Support- call on 112	DoT order 3GPP2 C.S0023 TS 22.101 TS 24.008. Annex-M
2.1.4	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
2.1.5	Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
2.1.6	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
2.1.7	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
2.1.8	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B

2.1.9	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
2.1.10	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
2.1.11	IT Equipment Safety	IS 13252-1 or IEC:60950-1 or IEC 62368-1. Annex-A1
2.1.12	Mobile device - Non Zero IMEI or MEID or ESN	Annex-M
2.1.13	Mobile Emergency Support - Panic Button	G.S.R. No. 436 (E) 3GPP TS 22.101 C.S0023. Annex-M

2.2 Interface 1 : 5G NR (FR1)

S.No.	Parameter Name	Standard Name
2.2.1	Int Parameters for 5G NR (FR1)	3GPP TS 38.521-1. Annex-F14
2.2.2	Operating frequency for 5G NR (FR1)	NFAP. Annex-F

2.3 Interface 2 : 5G NR- FR1 and FR2 interworking with other Radios

S.No.	Parameter Name	Standard Name
2.3.1	Int Parameters for 5G NR-FR1 and FR2 interworking with other Radios	3GPP TS 38.521-3. Annex-F13
2.3.2	Operating frequency for 5G NR- FR1 and FR2 interworking with other Radios	NFAP. Annex-F

2.4 Interface 3 : 5G NR (FR2)

S.No.	Parameter Name	Standard Name
2.4.1	Int Parameters for 5G NR (FR2)	3GPP TS 38.521-2. Annex-F15
2.4.2	Operating frequency for 5G NR (FR2)	NFAP. Annex-F

2.5 Interface 4 : Bluetooth Low Energy

S.No.	Parameter Name	Standard Name
2.5.1	EIRP for BLE Interface	WPC GSR 45(E). Annex-G4 (4.2)
2.5.2	Frequency of Operation for BLE Interface	Latest NFAP. Annex-G4(4.1)
2.5.3	Spurious Emission for BLE Interface	Annex G3

2.6 Interface 5 : GSM or GPRS or EDGE

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

2.7 Interface 6 : LTE or LTE-A

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

2.8 Interface 7 : WCDMA or HSPA

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