

अनिवार्य आवश्यकताएँ

संख्या : TEC17672201

Essential Requirements

ER No. : TEC17672201

Point of Sale Devices

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Issued under MTCTE by:

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Government of India

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Essential Requirements for:

Point of Sale Devices

Certification Scheme: **GCS**

Product Fee Group: **A**

This ER covers all types of Point of Sale Devices, with or without Biometric Scanner

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. Point Of Sales Terminal

1. Variant 1 : Point Of Sales Terminal

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	Over Voltage and over Current Protection on 2W	K.21. Annex-D

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 : 2 Wire

S.No.	Parameter Name	Standard Name
1.3.1	Idle State Current for 2 wire Int	ETSI EN 300 001 ETSI TBR-21 Cl. 4.4.1. Annex-D
1.3.2	Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
1.3.3	Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
1.3.4	Maximum Loop Current for 2W Int	ETSI EN 300 001 ETSI TBR-21 Cl.4.4.3. Annex-D
1.3.5	Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

1.4 Interface 3 : Bluetooth Low Energy

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

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 : GSM or GPRS or EDGE

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

1.7 Interface 6 : LTE or LTE-A

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

1.8 Interface 7 : Near Field Communication

S.No.	Parameter Name	Standard Name
1.8.1	Frequency of Operation for NFC Int	Latest NFAP. Annex-G6(6.1)
1.8.2	Spurious Emission for NFC Int	Annex- G3

1.9 Interface 8 : RFID

S.No.	Parameter Name	Standard Name
1.9.1	Basic RF Requirement RFID	Annex G5 (5.4 to 5.18) and / or Annex G6 (6.2 to 6.13)
1.9.2	EIRP for RFID Interface	WPC GSR 564(E). Annex-G5(5.2)
1.9.3	Frequency of Operation for RFID Int	NFAP. Annex G5(5.1) and / or Annex G6(6.1)
1.9.4	Maximum Transmit Power RFID	Annex G5 (5.4 to 5.18) and / or Annex G6 (6.2 to 6.13)
1.9.5	Spurious Emission for RFID Interface	Annex G3

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 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