

अनिवार्य आवश्यकताएँ

संख्या : TEC67492003

Essential Requirements

ER No. : TEC67492003

Signalling Gateway

© टीईसी, २०२०
© TEC, 2020

MTCTE के तहत जारी:

Issued under MTCTE by:

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:

Signalling Gateway

Certification Scheme: **GCS**

Product Fee Group: **C**

This ER covers all types of Signalling Gateways

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. Signalling Gateway

1. Variant 1 : Signalling Gateway

1.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
1.1.1	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
1.1.2	Conducted And Radiated Emission - Class A	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
1.1.3	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
1.1.4	Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
1.1.5	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
1.1.6	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. 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 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	CCS7 MTP3 Parameters	ITU-T Q.782. Annex-D3
1.1.11	CCS7 MTP2 Parameters	ITU-T Q.781. Annex-D3
1.1.12	CCS7 ISUP Parameters	ITU-T Q.784. Annex-D3
1.1.13	IPV4 Parameters Set-A	RFC 791. Annex-P6
1.1.14	M3UA Protocol Extensions Parameter	RFC 3332. Annex-P10
1.1.15	M3UA Parameters	RFC 3332. Annex-P10
1.1.16	SCTP Parameters Set-A	RFC 4960. Annex-P9
1.1.17	Signalling Protocol Over IP - RFC 2719	RFC 2719. Annex-P10

1.2 Interface 1 : 1 G Optical Ethernet

S.No.	Parameter Name	Standard Name
1.2.1	Average Launch power for 1 GE Opt	IEEE 802.3z Cl. 38. Annex-H
1.2.2	Receiver Sensitivity 1 GE Opt	IEEE 802.3z Cl. 38. Annex-H
1.2.3	Wavelength for 1 GE Opt	IEEE 802.3z Cl. 38. Annex-H

1.3 Interface 2 : 10 100 1000 BASE-T Ethernet

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

1.4 Interface 3 : 10 G Optical Ethernet

S.No.	Parameter Name	Standard Name
1.4.1	Average Launch power for 10 GE Opt	IEEE 802.3ae Cl. 52. Annex-H
1.4.2	Receiver Sensitivity 10 GE Opt	IEEE 802.3ae Cl. 52. Annex-H
1.4.3	Wavelength for 10 GE Opt	IEEE 802.3ae Cl. 52. Annex-H

1.5 Interface 4 : 2 Mbps - E1

S.No.	Parameter Name	Standard Name
-------	----------------	---------------

1.5.1	Nominal Bit Rate with Tolerance for 2 Mbps Int	ITU-T G.703 / ETSI TBR-4 Cl. 9.2.3. Annex-I
1.5.2	Input Jitter Tolerance for 2 Mbps Int	ITU-T G.823 / ETSI TBR-4. Annex-I
1.5.3	Input Return Loss for 2 Mbps Int	ITU-T G.703 / ETSI TBR-4 Cl. 9.3.1. Annex-I
1.5.4	Output Jitter for 2 Mbps Int	ITU-T G.823 / ETSI TBR-4. Annex-I
1.5.5	Pulse Mask for 2 Mbps Int	ITU-T G.703 / ETSI TBR-4 Cl. 9.2.1. Annex-I

1.6 Interface 5 : STM-1 Optical with EP

S.No.	Parameter Name	Standard Name
1.6.1	Nominal Bit Rate with Tolerance STM-1 Opt Int	ITU-T G.957. Annex-K
1.6.2	Input Jitter Tolerance for STM-1 Opt	ITU-T G.825. Annex-K
1.6.3	Mean Launched Power for STM-1 Opt Int	ITU-T G.957. Annex-K
1.6.4	Operating Wavelength Range for STM-1 Opt Int	ITU-T G.957. Annex-K
1.6.5	Output Jitter for STM-1 Opt Int	ITU-T G.783 G.825 Annex-K
1.6.6	Receiver Overload for STM-1 Opt Int	ITU-T G.957. Annex-K
1.6.7	Receiver Sensitivity for STM-1 Opt Int	ITU-T G.957. Annex-K
1.6.8	Eye Pattern for STM-1 Opt Int	ITU-T G.957. Annex-K