Laboratory	**Sunren Telecom Laboratory, A Division of M/S Sunren Technical Solutions Pvt. Ltd., C-475, T.T.C Industrial Area, Pawane, M.I.D.C., Navi Mumbai, Maharashtra**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**TC-7995** ***(in lieu of T-2065)*** **Page 1 of 15**
Validity	**18.10.2018 to 17.10.2020** **Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection

ELECTRONICS TESTING

I.	**MISCELLANEOUS PRODUCTS**			
1.	**Fax / Modem and other products with PSTN 2W analog Interface**	Transmit Power	ITU-T T.4 (TEC TSTP/TEC/IR/TX/FAX-01/05/ MAY 16)	20 dBm to (-) 100 dBm
		Receiver Sensitivity	ITU-T T.4 (TEC TSTP/TEC/IR/TX/FAX-01/05/ MAY 16)	20 dBm to (-) 50 dBm
		Return Loss - Reflection Loss	ITU-T Q.552 (TEC S/INT-2W/02-MAY2001)	0 dBm to 50 dBm
		Impedance Unbalance - Longitudinal / Transverse Conversion Loss	ITU-T Q.552 (TEC S/INT-2W/02-MAY2001)	0 dBm to (-) 100 dBm
2.	**Products with PSTN 2W analog Interface**	Idle State Power	ITU-T G.712 (TEC S/INT-2W/02-MAY2001)	10 dBm to (-) 100 dBm
		Idle State Impedance	ETSI EN 300 001 (TEC S/INT-2W/02-MAY2001)	100 Ω to 100 kΩ
		Insulation Resistance to Earth	ETSI EN 300 001, TBR-21 (TEC S/INT-2W/02-MAY2001)	100 kΩ to 200 MΩ
3.	**All products operating on AC Mains**	Variation in Supply Voltage and frequency	ETSI EN 300 001 (TEC TSTP/TEC/IR/TX/FAX-01/05/ MAY 16)	5 V to 300 V 45 Hz to 70 Hz

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4.	**All products with ITU-T G.703 Interface**	Pulse Mask & Coding	ITU-T G.703	10 mV to 25 V 5 ns to 5 s
		Return Loss - Reflection Loss	ITU-T G.703	(-) 50 dB to 50 dB
5.	**All products with ITU-T G.703 / G.957/G.691/OTN/ OTU Interface**	Output Jitter / Output Wander Clock Stability / TIE - Amplitude - Clock Stability - Jitter measurement Time	ITU-T G.823/G.825/G.783/G.813/ O.172/G.8251	 0 to 808 UI p-p 0.1 Hz to 20 MHz 0 to 1 1 s to 24 hours
		Synchronization - Tolerable Jitter / Wander - Jitter / Wander Tolerance	ITU-T G.823/G.825/G.783/G.8251	 0 to 808 UI p-p 0.1 Hz to 20 MHz
6.	**All products with ITU-T G.703 / G.957 /G.691 Interface**	Bit Error Rate	ITU-T G.826 &ITU-T G.821	64 kbps to 9953.280 Mbps 1 s to 1 year 0 to 1
7.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/OTN/ OTU interface**	Frequency / Bit rate / Baud rate	ITU-T G.703 / G.957 / G.691/ G.694.1 / IEEE 802.3/G.709	1Hz to 9953280000 Hz 1 to 103125 Giga-baud
8.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM/OTN/OTU/ PON interfaces**	Optical Spectral Width and wavelength / DWDM channel spacing	ITU-T G.957 / G.691 /G.694.1/ IEEE 802.3 / G.959.1/G.693 G984.2/G987.2/G9807.1/G 94.1/G989.2	600 nm to 1700 nm

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9.	**All products with ITU-T G.957 / G.691 interfaces**	Side Mode Suppression Ratio	ITU-T G.957 /G.691	0 dB to 50 dB
10.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM/OTN/OTU/ PON interfaces**	Optical Launch Power (Input / Output)	ITU-T G.957/G.691 IEEE 802.3 G.959.1/G.693/G.695/G984.2/G987.2/G9807.1/G94.1/ G989.2	(-) 50 dBm to 20 dBm
11.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM /OTN/OTU interfaces**	Extinction Ratio	ITU-T G.957 / G.691 IEEE 802.3	0 dB to 20 dB
12.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM interfaces**	Optical Eye Pattern	ITU-T G.957 / G.691 IEEE 802.3	10 mV to 25 V 5 ns to 5 s
13.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM/OTN/OTU/ PON Interfaces**	Receiver Sensitivity - Optical	ITU-T G.957 / G.691/G959.1/G.693 IEEE 802.3 G984.2/G987.2/G9807.1/G94.1/G989.2	0 dBm to (-) 50 dBm
14.	**All products with PSTN 2W analog Interface**	Psophometric Noise	ITU-T O.41	0 dBm to (-) 100 dBm

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15.	**Fax/Modem**	Observation of Data Speed in presence of Noise	ITU-T T.4 / ITU-T V.92/V.90/V.34b (TEC TSTP/TEC/IR/TX/FAX-01/05/ MAY 16)	56000 bps to 300 bps in steps of 2400 bps
		Observation of Data Speed under different SNR	ITU-TT.4/ITU-T V.92/V.90/V.34b (TEC TSTP/TEC/IR/TX/FAX-01/05/ MAY 16)	56000 bps to 300 bps in steps of 2400 bps
16.	**Facsimile Machine**	Satisfactory Fax transmission of T.22 chart	ITU-T T.22	Qualitative
17.	**All Products with ISDN BRI S/U Interface**	ISDN BRI Protocol	ITU-T Q.931 & SD/ISN-01	Layer 2 and Layer 3
18.	**All Products with ISDN PRI Interface**	ISDN PRI Protocol	ITU-T Q.931 & SD/ISN-01	Layer 2 and Layer 3
19.	**All Products with PSTN 2W analog Interface**	DTMF Analysis	ITU-T Q.23 (TEC S/INT-2W/02-MAY2001)	(-) 30 dBm to (-) 3 dBm 300 Hz to 3400 Hz
20.	**All Products with PSTN 2W analog Interface**	PULSE Dialing Analysis	ETSI EN 300 001 TEC TSTP IR/SW/PBX-004/03/MAR-2017	5 IPS to 25 IPS 20% to 85% M/B 120 ms to 999 ms IDP
21.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM**	Optical Return Loss Reflection Loss - Optical Reflectance	ITU-T G. 957 IEEE 802.3	0 dB to 40 dB

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22.	**All products with V.35 Interface**	Bit Error Rate	ITU-T G.821 & ITU-T V.35	64 kbps to 2048 kbps in steps of 64 kbps BER : 0 to 1
23.	**All Products with PSTN 2W analog Interface**	Click Test / Condenser Click	ETSI EN 300 001 (TEC/IR/SW/PBX-104/04/OCT 2017)	0.1 µF to 10 µF
		Cross Talk	ITU-T Q.552 (TEC/IR/SW/PBX-104/04/OCT 2017)	0 dBm to (-) 100dBm
		Flash	ETSI EN 300 001 (TEC/IR/SW/PBX-104/04/OCT 2017)	1 ms to 300 ms
24.	**All Products with PSTN 2W/4W Analog/Leased Line Interface**	Transmit Power Spectral Density	ITU-T G.9700, ITU-T G.992, ITU-T G. 993 (TEC S/INT-2W/02-MAY2001)	15 dBm to (-) 100 dBm/Hz
25.	**PABX (all clauses)**	Inter / Intra PABX calls PSTN Connectivity Emergency Services Compatibility with existing Networks Fault Localization Operation and Maintenance FeaturesSecurity & logs Performance Monitoring Verification of Codecs, Other general functions/ Features, etc.	TEC/IR/SW/PBX-104/04/OCT 2017	Qualitative
26.	**Telecom Protocols**	Verification of E1R2 , SS7, Signaling protocols	E1R2: ITU-T Q.440/441/442 SS7:ITU-T Q.781/782/783/784	Qualitative

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27.	**Telephone / Cordless Telephone/ Voice Terminals**	Acoustic Ratings SLR/RLR/STMR/Total Distortion	ITU-T P.57 / P.76/ P.79	(-) 20 dB to 20 dB
28.	**Telecom / IT products / circuits**	Resistance Measurement	ETSI EN 300 001, TBR-21 (TEC S/INT-2W/02-MAY2001)	0.1 Ω to 10 MΩ
		AC voltage Measurement	ETSI EN 300 001 (TEC S/INT-2W/02-MAY2001)	0.1 mV to 750 V
		DC voltage Measurement	ETSI EN 300 001 (TEC S/INT-2W/02-MAY2001)	0.1 mV to 1000 V
		AC / DC Current Measurement	ETSI EN 300 001 (TEC S/INT-2W/02-MAY2001)	10 μA_{ac} to 20 A_{ac} 0.1 μA_{dc} to 20 A_{dc}
		Supply Power Measurement	IEC-62623 / IEC 62301	0.01 W to 12 kW
29.	**All Products with digital and analog interface**	Group Delay	ITU-T Q.552	Up to 3000 µs
30.	**All Products with digital interface**	BIT Rate	ITU-T G.703 & ITU-T G.957	2048 kbps to 10 Gbps
		Structure Mapping Synchronization	ITU-T G.703, G.691& ITU-T G.957	As per bit rate
		Slip Measurement	ITU-T G.822	Min ± 1 Bit Slip
31.	**All Electronic Products with RF output**	Power spectral Density	EN 300328 / EN 301 893 / EN 300 330 / EN 300 220	100 Hz to 26.5 GHz (-) 130 dBm to +30 dBm
		Peak Power / EIRP / ERP	EN 300328 / EN 301 893 / EN 300 330 / EN 300 220	10 MHz to 18 GHz (-) 57 dBm to 33 dBm

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		6dB & 20dB Bandwidth	EN 300328 / EN 301 893 / EN 300 330 / EN 300 220	100 Hz to 26.5 GHz
	All Electronic Products with RF output	Frequency Range	EN 300328 / EN 301 893 / EN 300 330 / EN 300 220	100 Hz to 26.5 GHz
		Out of Band Spurious Emissions	EN 300328 / EN 301 893 / EN 300 330 / EN 300 220	100 Hz to 26.5 GHz (-) 130 dBm to 30 dBm
32.	**All Products with 10/100/1000 Base Ethernet interface**	Ethernet Performance (Ping) Throughput, Latency, Frame Loss, LDDP, MAC & Packet, ST, Protocol & RFC test SNMP V2,V3 / IPV4 / IPV6 Protocols, Synchronization, Manageability, Link Speed Test, Duplex (Half/Full) Auto Negotiation	IEC 802.3,IEC 802.1 / RFC2544 , RFC 4862, RFC 4443, RFC 4291, RFC 2460, RFC 4861, RFC 4862,RFC 1981, RFC 5095, RFC4271,RFC4760, RFC2545,RFC 5036,RFC 3031,RFC 5798,RFC 2205,RFC 3209,RFC 3410,RFC 3416, RFC 1305, RFC 5905& RFC suits, TCP as per RFC 793, UDP as per RFC 768, SIP, Audio codec's, TCP, RTP, RTCP,LDDP protocol	Qualitative
		Differential output voltage	IEEE 802.3	10 mV to 25 V
		AC Differential input impedance - Return Loss	IEEE 802.3	(-) 50 dB to 50 dB

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33.	**All Products with Optical Ethernet interface 1G/10G**	Output Jitter	IEEE 802.3	1 ns to 5 s
		Receive electrical 3dB upper cut off frequency	IEEE 802.3	1 MHz to 1GHz
		Vertical Eye Closure penalty	IEEE 802.3	1 dB to 5 dB
34.	**All products with as per ITU-T G.957 / G.691/ Optical Ethernet 100/1G/10G/40G / DWDM/OTN/OTU**	Receiver Overload	ITU-T G.957,ITU-T G.691,ITU-T G.693/G.959.1	(-) 30 dBm to 6 dBm
35.	**All products operating on DC supply**	Variation in DC Supply voltage	TEC/IR/TX/DMX-006/03.DEC-11, TEC/IR/TX/DMX-007/02/SEP-12	Up to 60 V
36.	**All Telecom/IT products with telecom/USB/Ethernet/Coaxial ports**	Lightning voltage Lightning current - Verify no damage and no insulation breakdown - Voltage Pulse - Current pulse	ITU-T K.20, ITU-T K.21, ITU-T K.44 ITU-T K.45	 10/700 µs 1.2/50 µs $\pm$ 0.2 to $\pm$ 6kV 5/320 µs 5 kA
		Power induction and earth potential rise Neutral potential rise Mains power contact. - Verify no damage and no insulation breakdown	ITU-T K.20, ITU-T K.21, ITU-T K.44, ITU-T K.45	Up to 5 kV_{ac}
37.	**All products with VOIP interface**	SIP Call flow SIP Signaling Verification of Codec's	RFC 4733, 3550,793,768,1305, 3261,2833,2460,791	Qualitative

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II.	**ENVIRONMENT TEST FACILITY**			
1.	**All Electrical / Electronic Appliances, Office automation, IT products, Telecom products and Objects having external dimensions** **less than 1.2 m x 1.2 m x 0.9 m**	Cold - Low Temperature	IEC 60068-2-1:2007 QM 333/Issue-2:2010 IS 9000 (Part II/Sec 1 to 4): 1977	(-) 20 °C to Ambient
		Dry Heat - High Temperature	IEC 60068-2-2:2007 QM 333/Issue-2:2010 IS 9000: (Part III/ Sec 1 to 5) 1977	Ambient to 65 °C
		Change of Temperature	IEC 60068-2-14:2009 QM 333/Issue-2:2010 IS 9000: (Part 14) 1986	(-) 20 °C to 65 °C
		Damp Heat Steady State	IEC60068-2-78:2001 QM 333/Issue-2:2010 IS 9000:2008 (Part IV)	(-) 20 °C to 65 C 15 % to 95 % RH
		Damp Heat Cyclic	IEC 60068-2-30:2005 QM 333/Issue-2:2010 IS 9000:1986 (Part V)	(-) 20 °C to 65 °C 15 % to 95 % RH
		Drop & Topple - Drop Height	IEC60068-2-31:2008 QM 333/Issue-2:2010 IS 9000:1979 Part VII –Sec 3 & 4	Qualitative 1 N to 1000 N 25 mm , 50 mm, 100 mm, 250 mm, 500mm 0 to 30°

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2.	**All Electrical / Electronic Appliances, Office automation, IT products, Telecom products and Objects having external dimensions**	Ingress Protection IP	IS/IEC 60529	
			- IP 1X	50 mm ϕ
			- IP 2X	12 mm ϕ , 80 mm
			- IP 3X	2.5 mm ϕ ,100 mm
			- IP 4X	1.0 mm ϕ ,100 mm
			- IPX3	50 kPa to 150 kPa
			- IPX4	50 kPa to 150 kPa
		- Nozzle	- IPX5	6.3 mm 12.5 l/min
		- Nozzle	- IPX6	12.5 mm 100 l/min
			- IPX7	1 m
III.	**SAFETY TESTING FACILITY**			
1.	**Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones, Power Adapters, Automatic Data Processing Machine ,CCTV Cameras, CCTV Recorders USB driven Barcode readers, barcode scanners, Iris scanners, Optical fingerprint**	Power Interface	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 1.6	1 V_{ac} to 300 V_{ac} 1 V_{dc} to 64 V_{dc} 0.01 mA_{ac} to 60 A_{ac} 0.01 mA_{dc} to 20 A_{dc}
		Markings & Instructions	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) I EC 60950-1 :2005+ A1(2009)+A2(2013) Cl.1.7	Qualitative
		Protection from Hazards - Protection from Electric Shock & Energy Hazards	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.1	0.001 V_{ac} to 750 V_{ac} 0.1 mV_{dc} to 1000 V_{dc} Up to 150mm
		SELV Circuits	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013)	0.001 V_{ac} to 750 V_{ac} 0.1 mV_{dc} to 1000 V_{dc} 0.01 mA to 20 A

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	scanners &Smart watches) I		Cl. 2.2	
		TNV Circuits	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.3	0.001 V_{ac} to 750 V_{ac} 0.1 mV_{dc} to 1000 V_{dc} 0.01 mA to 20 A
		Limited Current Circuits	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.4	0.001 V_{ac} to 750 V_{ac} 0.1 mV_{dc} to 1000 V_{dc} 0.01 mA to 20 A
		Limited Power Sources	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.5	0.001 V_{ac} to 750 V_{ac} 0.1 mV_{dc} to 1000 V_{dc} 0.01 mA to 20 A
		Provision for earthing and bonding	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.6	0.01 Ω to 10 Ω
		Over-current and earth fault protection in primary circuits and Safety Interlocks	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.7, 2.8 except 2.8.5 , 2.8.7)	Qualitative
		Electrical Insulation	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 2.9	(-) 20 ^{0}C to 60 ^{0}C 15 % to 95 % RH 1 V to 5 kV Up to 1000 MΩ

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		Clearances, Creepage distances and distances through insulation	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Only Cl. 2.10.1, 2.10.2, 2.10.3, 2.10.4, 2.10.5.1, 2.10.5.2, 2.10.5.3 ,2.10.5.4 ,2.10.5.5, 2.10.5.7, 2.10.5.9, 2.10.5.10, 2.10.6	Up to 150 mm (-) 20 ^{0}C to 60 ^{0}C 15 % to 95 % RH 1 V to 5 kV
		Wiring Connection and Supply General	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl.3.1	Qualitative
		Connections to mains Supply	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 3.2 except 3.2.5	Up to 50N Up to 150mm 0.1 mV_{dc} to 1000 V_{dc}
		Wiring Terminals for external conductors	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 3.3	(-) 200 ^{0}C to 1370 ^{0}C Up to 150mm
		Disconnections from the main Supply	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 3.4	Qualitative
		Interconnection of equipment	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 3.5	Qualitative

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		Physical Requirements Stability	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 4.1	0° to 10 ^{0} Up to 800N
		Mechanical Strength	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 4.2 except 4.2.8 , 4.2.9	Up to 500N
		Design & Construction	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 4.3 Batteries Cl. 4.3.8 except 4.3.10, 4.3.11, 4.3.12	Qualitative
		Protection against hazardous moving parts	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 4.4	Up to 50N
		Thermal Requirements	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 4.5	20 ^{0}C to 200 ^{0}C
		Opening in Enclosure	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl.4.6 except 4.6.2	Up to 150mm

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		Electrical requirements & simulated abnormal conditions Touch current & protective conductor current	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 5.1	Up to 20mA
		Electric Strength	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 5.2	0.1V_{ac} to 5KV_{ac} 0.1V_{dc} to 6KV_{dc}
		Abnormal operating & fault conditions	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 5.3	(-) 200 ^{0}C to 1370 ^{0}C 0.1 V_{ac} to 5 kV_{ac} 0.1 V to 6 kV
		Connections to Telecommunication network	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) Cl. 6.1, 6.2, 6.3	0.1 V_{ac} to 5 kV_{ac} 0.1 V_{dc} to 6 kV_{dc} 0.1 mA to 40 mA
		Protection against Lightning - Voltage Pulse - Current Pulse	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) ITU-T K.21/ K.44	10/700 µs $\pm$ 0.2 to $\pm$ 6kV 5/320 µs
		Connection to cable Distribution System	IS 13252 (Part 1): 2010 + A1(2013)+A2(2015) IEC 60950-1 :2005+ A1(2009)+A2(2013) IEC 61000-4-5 Cl. 7.1, 7.2,7.3, 7.4 except 7.4.2	$\pm$ 0.2 to $\pm$ 6Kv 1.2/50 µs 10/700 µs

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IV.	**EMC TEST FACILITY**			
1.	**All Electronic and Electrical, Information Technology and Telecommunications Equipment**	Electro Static Discharge (ESD)	IEC 61000-4-2 EN 61000-4-2 BS EN 55014-2: 1997	Up to 25 kV Up to ± 8 kV Up to ± 15 kV
		Electrical Fast Transients (EFT)	IEC 61000-4-4 EN 61000-4-4	Up to ± 5.0 kV 5 / 50 ns ± 4KV
		Surge	IEC 61000-4-5 EN 61000-4-5	Up to ±6.0kV 1.2/50 µs ± 5KV

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