

अनिवार्य आवश्यकतायें
संख्या: TEC18351906

Essential Requirement
ER No.: TEC18351906

2- Wire Telephone Equipments

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Essential Requirements for:
2- Wire Telephone Equipments

Certification Scheme: **SCS**

Product Fee Group: **A**

This ER covers all types of telephone instruments and devices, connectable to 2-wire PSTN line. Selection of 2-wire interface is mandatory while applying for certification.

This product has the following variants:

- 1 2-Line Feature Phone
- 2 CLIP Phone
- 3 Coin Box Telephone
- 4 Coin Box Telephone - Table Top Interface
- 5 Electronic Telephone Instrument
- 6 Executive Telephone Systems
- 7 Key Telephone Systems
- 8 NSD/ISD Payphone
- 9 Terminals for connecting to PSTN

Variant 1 : 2-Line Feature Phone

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D

Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 2 : CLIP Phone

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 3 : Coin Box Telephone

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D

Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 4 : Coin Box Telephone - Table Top Interface

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 5 : Electronic Telephone Instrument

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
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Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 6 : Executive Telephone Systems

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 7 : Key Telephone Systems

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Mandatory Parameters if interface selected: ISDN BRI

Parameter Name	Standard Name
Layer-III BRI Specification - Call Setup	Q.931. Annex-D1
Layer-III BRI Specification - Call Clearing	Q.931. Annex-D1

Variant 8 : NSD/ISD Payphone

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B
Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D

Variant 9 : Terminals for connecting to PSTN

Mandatory Parameters

Parameter Name	Standard Name
IT Equipment Safety	IS 13252. IEC:60950-1. Annex-A1
Conducted And Radiated Emission - Class B	TEC EMI EMC Standard, CISPR 22/32, EN55022/32. Annex-B
Immunity to Electrostatic Discharge	TEC EMI EMC Standard, EN/IEC:61000-4-2. Annex-B
Immunity to Radiated RF	TEC EMI EMC Standard, EN/IEC:61000-4-3. Annex-B
Immunity to Fast Transients (Burst)	TEC EMI EMC Standard, EN/IEC:61000-4-4. Annex-B

Immunity to Surges	TEC EMI EMC Standard, EN/IEC:61000-4-5. Annex-B
Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard, EN/IEC:61000-4-6. Annex-B
Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard, EN/IEC:61000-4-11. Annex-B
Immunity to DC Voltage Dips and Short Interruptions	EN/IEC:61000-4-29. Annex-B
Acoustic Shock Absorption	P.360. Annex-D
Over Voltage Current Protection on 2W	K.21. Annex-D

Mandatory Parameters if interface selected: 2 Wire

Parameter Name	Standard Name
Idle State Current for 2 wire Int	ETSI EN 300 001, ETSI TBR-21 Cl. 4.4.1. Annex-D
Insulation Test for 2 wire Int	ETSI EN 300 001. Annex-D
Longitudinal Conversion Loss for 2W Int	Q.552 Cl. 2.2.2. Annex-D
Maximum Loop Current for 2W Int	ETSI EN 300 001, ETSI TBR-21 Cl.4.4.3. Annex-D
Return Loss for 2W Int	Q.552 Cl. 2.2.1.2. Annex-D