



COVERING NOTE

GENERAL SECRETARIAT INTERNATIONAL TELECOMMUNICATION UNION

Geneva, 16 January 2004

ITU – TELECOMMUNICATION
STANDARDIZATION SECTOR

Subject: Erratum 1 (01/2004) to

ITU-T Recommendation K.20 (07/2003), *Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents*

Modify **Table 7/K.20 – Lightning test conditions for ports connected to internal cables** as follows:

| Test No. | Test description | Test circuit and waveshape See Annex A/K.44 | Basic test levels Also see clause 7/K.44 | Enhanced test levels Also see clauses 5 and 7/K.44 | No. of tests | Primary protection | Acceptance criteria | Comments |
|--|---|---|---|---|--------------------|--------------------|---------------------|--|
| 7.1 | Unshielded cable | Figures A.3-5/K.44 and A.6.45-1/K.44 $R = 10 \Omega$ | $U_{c(max)} = 500 \text{ V}$ | $U_{c(max)} = 1000 \text{ V}$ | 5 of each polarity | None | A | |
| 7.2 | Shielded cable (including coaxial cables) | Figure A.3-5/K.44 and Figure A.6.5-12/K.44 $R = 0 \Omega$ | $U_{c(max)} = 500 \text{ V}$ | $U_{c(max)} = 1000 \text{ V}$ | 5 of each polarity | None | A | |
| 7.3 | Floating D.C. Power interface | Figures A.3-5/K.44 and A.6.3-12 $R = 0 \Omega$ Coupling element = $10 \Omega + 9 \mu\text{F}$ in series | $U_{c(max)} = 500 \text{ V}$ | $U_{c(max)} = 1000 \text{ V}$ | 5 of each polarity | None | A | For D.C. Power supplies with both sides floating |
| 7.4 | Earthed D.C. Power interface | Figures A.3-5/K.44 and A.6.3-21a $R = 0 \Omega$ dpf1 coupling element = $10 \Omega + 9 \mu\text{F}$ in series dpf2 connected to generator return | $U_{c(max)} = 500 \text{ V}$ | $U_{c(max)} = 1000 \text{ V}$ | 5 of each polarity | None | A | For D.C. Power supplies with one side grounded |
| NOTE – The requirements of this table relate to the inherent resistibility of the input and output ports of the tested equipment. It is presumed that a Minimum Common Bonding Network has been installed according to ITU-T Rec. K.40 and that the earthing and bonding network is either a Mesh-BN configuration or a Mesh-IBN with a bonding mat configuration as described in ITU-T Rec. K.27. In cases which do not fulfil these conditions, additional protection measures or equipment with higher resistibility levels, e.g. the enhanced test levels, may be necessary. | | | | | | | | |