

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

K.21

(07/2019)

SERIES K: PROTECTION AGAINST INTERFERENCE

**Resistibility of telecommunication equipment
installed in customer premises to overvoltages
and overcurrents**

Recommendation ITU-T K.21

ITU-T



Recommendation ITU-T K.21

Resistibility of telecommunication equipment installed in customer premises to overvoltages and overcurrents

Summary

Recommendation ITU-T K.21 specifies resistibility requirements and test procedures for telecommunication equipment that is attached to or installed within a customer's premises.

Overvoltages or overcurrents covered by this Recommendation include surges due to lightning on or near the line plant, short-term induction from adjacent alternating current (a.c.) power lines or railway systems, earth potential rise due to power faults, direct contact between telecommunication lines and power lines, and electrostatic discharges (ESDs). The sources for overvoltages in internal lines are mainly inductive coupling caused by lightning currents being conducted in nearby lightning strikes or lightning currents being conducted by nearby conductors.

Changes compared with Recommendation ITU-T K.21 (2018) include:

- added special resistibility requirements
- added DC insulation resistance test;
- added Test 7.10
- changes to some test labels.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T K.21	1988-11-25		11.1002/1000/1390
2.0	ITU-T K.21	1996-10-18	5	11.1002/1000/3881
3.0	ITU-T K.21	2000-10-06	5	11.1002/1000/5153
4.0	ITU-T K.21	2003-07-29	5	11.1002/1000/6493
5.0	ITU-T K.21	2008-04-13	5	11.1002/1000/9401
6.0	ITU-T K.21	2011-11-13	5	11.1002/1000/11421
7.0	ITU-T K.21	2015-04-22	5	11.1002/1000/12404
8.0	ITU-T K.21	2016-06-29	5	11.1002/1000/12868
9.0	ITU-T K.21	2016-12-14	5	11.1002/1000/13127
10.0	ITU-T K.21	2017-07-29	5	11.1002/1000/13273
11.0	ITU-T K.21	2018-10-22	5	11.1002/1000/13630
12.0	ITU-T K.21	2019-07-14	5	11.1002/1000/13951

Keywords

1.2/50-8/20, 10/700, customer premises equipment, Ethernet, external port, internal port, overvoltage, overcurrent, power contact, power induction, power over Ethernet (PoE), resistibility, surges, telecommunication equipment, transverse / differential, universal serial bus (USB).

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.