

I n t e r n a t i o n a l T e l e c o m m u n i c a t i o n U n i o n

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

K.132

(01/2018)

SERIES K: PROTECTION AGAINST INTERFERENCE

Electromagnetic compatibility requirements of electromagnetic disturbances from lighting equipment located in telecommunication facilities

Recommendation ITU-T K.132

ITU-T

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Summary

Recommendation ITU-T K.132 specifies limits and measurement methods of electromagnetic disturbances from lighting equipment for installation in telecommunication facilities. The requirements in Recommendation ITU-T K.132 are based on CISPR 15 and CISPR 32 for continuous electromagnetic disturbances. Furthermore, Recommendation ITU-T K.132 specifies the limit of transient conducted current and measurement methods.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T K.132	2018-01-13	5	11.1002/1000/13455

Keywords

Disturbance, lighting equipment, transient.

* 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>.

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Recommendation ITU-T K.132

Electromagnetic compatibility requirements of electromagnetic disturbances from lighting equipment located in telecommunication facilities

1 Scope

This Recommendation specifies limits and measurement methods for electromagnetic disturbances from lighting equipment for installation in telecommunication facilities.

The electromagnetic disturbances specified in this Recommendation are continuous conducted and radiated disturbances emitted when lighting equipment is operating, and conducted transient disturbances generated when it is switched on and off. The frequency range of continuous conducted disturbances, from 9 kHz to 30 MHz, and continuous radiated disturbances, in the frequency range 30 MHz to 1 GHz, lie within the scope of this Recommendation.

Additionally, this Recommendation specifies the limit of conducted transient disturbances to prevent malfunctions in telecommunication equipment that transmits signals below 30 MHz, such as the integrated service digital network (ISDN), asymmetric digital subscriber line (ADSL) and very high bit rate digital subscriber line (VDSL).

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- [ITU-T K.48] Recommendation ITU-T K.48 (2006), *EMC requirements for telecommunication equipment – Product family Recommendation*.
- [CISPR 15] CISPR 15:2015, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment*.
- [CISPR 16-1-2] CISPR 16-1-2:2017, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Coupling devices for conducted disturbance measurements*.
- [CISPR 32] CISPR 32:2015, *Electromagnetic compatibility of multimedia equipment – Emission requirements*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 conducted disturbance [b-IEC 60050], 161-03-27: Electromagnetic disturbance for which the energy is transferred via one or more conductors.

3.1.2 electromagnetic disturbance [b-IEC 60050], 161-01-05: Any electromagnetic phenomenon which can degrade the performance of a device, equipment or system, or adversely affect living or inert matter.