

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC 61000-4-15
Edition 2.0 2010-08

ELECTROMAGNETIC COMPATIBILITY (EMC) –

**Part 4-15: Testing and measurement techniques –
Flickermeter – Functional and design specifications**

INTERPRETATION SHEET 1

This interpretation sheet has been prepared by subcommittee 77A: EMC – Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

The text of this interpretation sheet is based on the following documents:

FDIS	Report on voting
77A/966/FDIS	77A/973/RVD

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

Interpretation of requirements for rectangular voltage modulation with duty ratio according to IEC 61000-4-15: Electromagnetic compatibility (EMC) – Testing and measurement techniques – Flickermeter – Functional and design specifications.

IEC 61000-4-15 Ed 2 gives requirements in 6.8 for what is called “Rectangular voltage changes with 20 % duty cycle”. Table 11 provides the test specification for rectangular voltage changes with duty ratio. The requirements per Table 11 and the associated tests patterns caused some questions in the past year, and therefore IEC/SC77A/WG-2 wishes to clarify the title and interpretation per 6.8 which should be read as follows:

6.8 Rectangular voltage modulation for 20 % of the time

The amplitude of the test voltage U is rectangularly modulated with a 50 % duty cycle at 28 Hz. Every minute the amplitude modulation is switched on for 12 s and off for 48 s. Table 11 specifies the modulation depth in terms of voltage fluctuation ($\Delta U/U$), which is further specified in Annex B. The transition time at the edges of the rectangular modulation shall be less than 0,5 ms.

The ten-minute P_{st} indication of the meter under test shall be 1,00 with a tolerance of ± 5 %.

Figure 1 shows a $\Delta U/U = 35$ % for illustration purposes, as a 1 % to 2 % modulation would not be visible. Only 400 ms of the time axis is depicted, showing 200 ms on each side of the modulation on/off switching at 12 s.

NOTE The above text in 6.8 will be considered as a replacement for the original text when IEC 61000-4-15 is updated either through an amendment or replaced by a new edition.