

INTERNATIONAL STANDARD

NORME INTERNATIONALE



INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE
COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

AMENDMENT 1
AMENDEMENT 1

**Information technology equipment – Immunity characteristics – Limits and
methods of measurement**

**Appareils de traitement de l'information – Caractéristiques d'immunité – Limites
et méthodes de mesure**



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FOREWORD

This amendment has been prepared by subcommittee CIS/I: Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers.

The text of this amendment is based on the following documents:

FDIS	Report on voting
CIS/I/500/FDIS	CIS/I/504/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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4.2.1 Electrostatic discharges (ESD)

Replace the existing eighth paragraph starting with "For contact discharge..." by the following new paragraph:

For contact discharges, there is no requirement to apply discharges at voltages below the test level defined in Table 1.

4.2.3.1 General

Add, at the end of the existing text, the following new text:

Recognising that a 1 % step size is preferred, the frequency range can be swept incrementally with a step size not exceeding 4 % of the previous frequency with a test level of twice the value of the specified test level in order to reduce the testing time for equipment requiring testing in multiple configurations and/or long cycle times.

The step size and test level used shall be recorded in the test report.

Table 3 – Immunity, input d.c. power port (excluding equipment marketed with a a.c./d.c. power converter)

Replace the second existing line of this table by the following new line:

3.2	Surges	0,5 1,2/50 (8/20)	kV (peak) Tr/Th μ s	IEC 61000-4-5	Test applied each line to ground reference See ^b	B
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Table A.1 – Criteria applied to TTE functions, used during continuous disturbances testing

Replace the existing table by the following new table:

	TTE Function	Method		
		A.2.2 or A.2.3	A.2.4 or A.2.6	A.2.5
A1.1	Dial capability used to establish a telephony call.	n/a	n/a	Yes (See ^a)
A1.2	Audio receiving capability via an ear piece (headset or handset etc.)	A.2.2 or A.2.3	n/a	n/a
A1.3	Audio transmission capability via a microphone (headset or handset etc.)	n/a	A.2.4 or A.2.6	n/a
A1.4	Hands free operation	A.2.3 using Figure A.3	n/a	n/a
A1.5	Line connection ^b	n/a	A.2.4 or A.2.6	n/a
^a Only applicable to EUT that provides emergency service call capability.				
^b A call shall be maintained for the duration of the test.				

A.2.1 General

Replace the existing sixth paragraph starting with "Where possible..." by the following new text:

If it is suspected that the mute functions, echo cancelling capabilities, or noise cancelling circuitry are interfering with the ability to make the measurement, then these features may be disabled and the test performed. Where this is not possible the following method may reduce the influence of the noise and echo cancelling functions. This is dependent on the implementation and the resulting disturbances.

The communication path should be activated in both transmit and receive directions for measurements during the immunity tests, however, since both receive and transmit paths may not be active simultaneously, especially during hands-free operation, the immunity tests for the receive path and the transmit path may need to be assessed separately.

When measurements are carried out in the receive direction, a suitable test signal (for example 300 Hz sine wave) shall be coupled into the receive direction path. The level of this test signal shall be high enough (for example -50 dBm) to activate the receive path and be filtered by the band-pass filter during the immunity test.

When measurements are carried out in the transmit direction, the transmit mode shall be activated with a loudspeaker placed at an appropriate distance from the EUT. The test signal produced by the loudspeaker shall be loud enough for the EUT to activate the transmit path and be filtered by the band-pass filter during the immunity test.

The mute function shall be switched off during testing by the normal procedure.