

SLOVENSKI STANDARD
SIST EN 61000-4-4:2005/A1:2011
01-marec-2011

Elektromagnetna združljivost (EMC) - 4-4. del: Preskusne in merilne tehnike - Preskus odpornosti proti hitrim električnim prehodnim pojavom/razpoku - Dodatek A1

Electromagnetic compatibility (EMC) -- Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test

Elektromagnetische Verträglichkeit (EMV) -- Teil 4-4: Prüf- und Messverfahren - Prüfung der Störfestigkeit gegen schnelle transiente elektrische Störgrößen/Burst

Compatibilité électromagnétique (CEM) -- Partie 4-4: Techniques d'essai et de mesure - Essais d'immunité aux transitoires électriques rapides en salves

Ta slovenski standard je istoveten z: EN 61000-4-4:2004/A1:2010

ICS:

33.100.20 Imunost Immunity

SIST EN 61000-4-4:2005/A1:2011 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61000-4-4/A1

March 2010

ICS 33.100.20

English version

**Electromagnetic compatibility (EMC) -
Part 4-4: Testing and measurement techniques -
Electrical fast transient/burst immunity test
(IEC 61000-4-4:2004/A1:2010)**

Compatibilité électromagnétique (CEM) -
Partie 4-4: Techniques d'essai
et de mesure -
Essais d'immunité aux transitoires
électriques rapides en salves
(CEI 61000-4-4:2004/A1:2010)

Elektromagnetische Verträglichkeit (EMV) -
Teil 4-4: Prüf- und Messverfahren -
Prüfung der Störfestigkeit gegen schnelle
transiente elektrische Störgrößen/Burst
(IEC 61000-4-4:2004/A1:2010)

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This amendment A1 modifies the European Standard EN 61000-4-4:2004; it was approved by CENELEC on 2010-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 77B/621/FDIS, future amendment 1 to IEC 61000-4-4:2004, prepared by SC 77B, High frequency phenomena, of IEC TC 77, Electromagnetic compatibility, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 61000-4-4:2004 on 2010-03-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2010-12-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2013-03-01

Endorsement notice

The text of amendment 1:2010 to the International Standard IEC 61000-4-4:2004 was approved by CENELEC as an amendment to the European Standard without any modification.

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[SIST EN 61000-4-4:2005/A1:2011](https://standards.iteh.ai/catalog/standards/sist/91296968-c6ce-42fb-8ee9-81d37e44049b/sist-en-61000-4-4-2005-a1-2011)

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AMENDMENT 1
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FOREWORD

This amendment has been prepared by subcommittee 77B: High frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

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

FDIS	Report on voting
77B/621/FDIS	77B/627/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 maintenance result 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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SIST EN 61000-4-4:2005/A1:2011

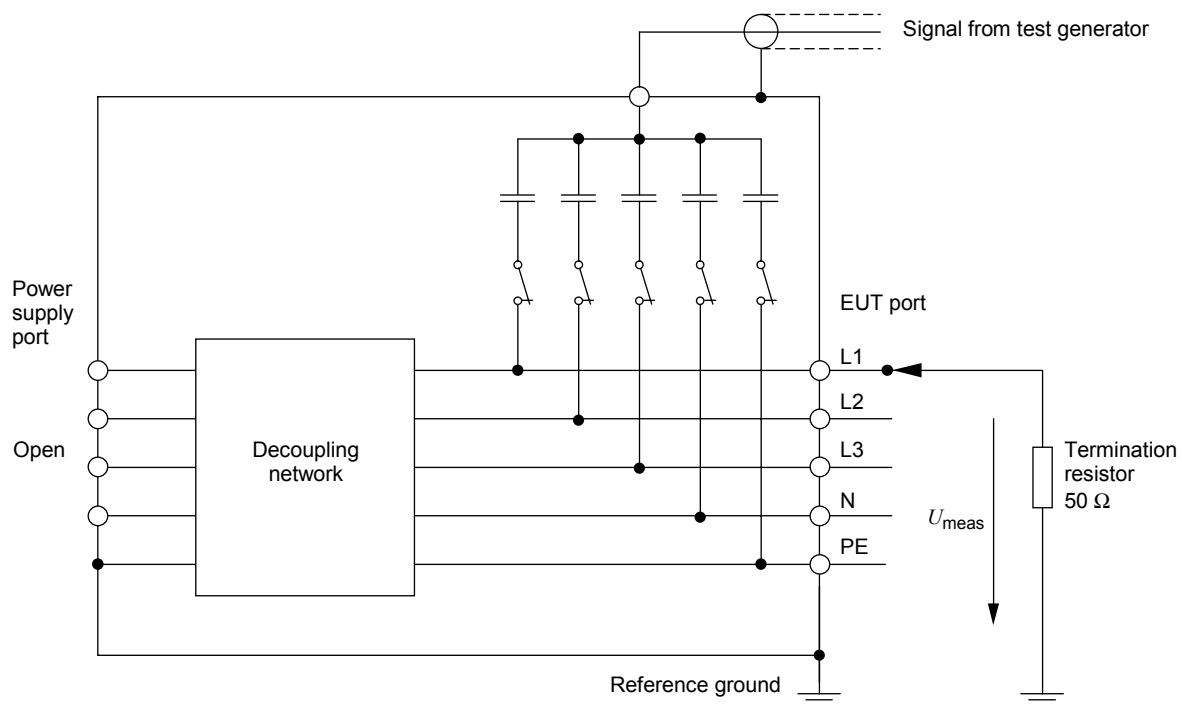
6.2.2 Verification of the characteristics of the coupling/decoupling network

Replace the entire text of this subclause by the following:

The requirements given in 6.1.2 also apply to the measurement equipment that is used for the verification of the characteristics of the coupling/decoupling network.

The waveform shall be individually verified for each coupling line at each output terminal (L1, L2, L3, N and PE) of the coupling/decoupling network with a single 50 Ω termination to reference ground. Figure 14 shows one of the five verification measurements; the verification measurement of L1 to reference ground.

NOTE Verifying each coupling line separately is done to ensure that each line is properly functioning and calibrated.



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Figure 14 – Verification of the waveform at the output of the coupling/decoupling network

The verification is performed with the generator output at a set voltage of 4 kV. The generator is connected to the input of the coupling/decoupling network. The individual outputs of the CDN (normally connected to the EUT) are terminated with a 50 Ω load while the other outputs are open. The peak voltage and waveform are recorded.

Rise time of the pulses (10 % to 90 % value) shall be $5 \text{ ns} \pm 1,5 \text{ ns}$.

Impulse duration (50 % value) shall be $50 \text{ ns} \pm 15 \text{ ns}$.

Peak voltage shall be $2 \text{ kV} \pm 0,2 \text{ kV}$ according to Table 2.

The residual test pulse voltage on the inputs of the coupling/decoupling network when the EUT and the power network are disconnected shall not exceed 10 % of the applied test voltage.