
**Konektorji za elektronsko opremo – Preskusi in meritve – 25-5. del: Preskus
25e – Povratna izguba (IEC 60512-25-5:2004)**

Connectors for electronic equipment – Tests and measurements – Part 25-5: Test
25e – Return loss (IEC 60512-25-5:2004)

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EUROPEAN STANDARD

EN 60512-25-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2004

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English version

**Connectors for electronic equipment –
Tests and measurements
Part 25-5: Test 25e – Return loss
(IEC 60512-25-5:2004)**

Connecteurs pour équipements
électroniques –
Essais et mesures
Partie 25-5: Essai 25e –
Affaiblissement de réflexion
(CEI 60512-25-5:2004)

Steckverbinder für elektronische
Einrichtungen –
Mess- und Prüfverfahren
Teil 25-5: Prüfung 25e –
Rückflusdämpfung
(IEC 60512-25-5:2004)

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 48B/1447/FDIS, future edition 1 of IEC 60512-25-5, prepared by SC 48B, Connectors, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60512-25-5 on 2004-09-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-09-01

Endorsement notice

The text of the International Standard IEC 60512-25-5:2004 was approved by CENELEC as a European Standard without any modification.

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Essais et mesures –

Partie 25-5:
Essai 25e –

Affaiblissement de réflexion

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Connectors for electronic equipment –
Tests and measurements –

Part 25-5:

Test 25e –

Return loss

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTORS FOR ELECTRONIC EQUIPMENT –
TESTS AND MEASUREMENTS –

Part 25-5: Test 25e – Return loss

FOREWORD

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International Standard IEC 60512-25-5 has been prepared by subcommittee 48B: Connectors, of IEC Technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

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

FDIS	Report on voting
48B/1447/FDIS	48B/1460/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this 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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CONNECTORS FOR ELECTRONIC EQUIPMENT – TESTS AND MEASUREMENTS –

Part 25-5: Test 25e – Return loss

1 Scope

This part of IEC 60512 is applicable to electrical connectors, sockets, cable assemblies or interconnection systems.

This part of IEC 60512 describes a frequency and a time domain method to measure return loss as a function of frequency.

2 Terms and definitions

For the purposes of this part of IEC 60512, the following terms and definitions apply.

2.1

return loss

measure for a signal reflected by the specimen in ratio with the incident signal

NOTE It can be expressed in decibels (dB).

2.2

specimen environment impedance

impedance presented to the signal conductors by the fixture. This impedance is a result of transmission lines, termination resistors, attached receivers or signal sources and fixture parasitics

3 Test resources

3.1 Equipment

3.1.1 Frequency domain

A network analyzer with acceptable dynamic range for the DUT (Device Under Test) is to be used. For differential measurements, a network analyzer with a multiport test set or baluns may be used.

3.1.2 Time domain

A Time Domain Reflectometer (TDR), triggered impulse generator and appropriate Fast Fourier Transform (FFT) software are preferred.

3.2 Fixture

3.2.1 General

The specimen environment impedance shall match the impedance of the test equipment. Unless otherwise specified in the detail specification, typically this will be 50 Ω for single ended measurements and 100 Ω for differential.