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**Konektorji za elektronsko opremo – Preskusi in meritve – 23-7. del: Presejalni in filtrirni preskusi – Preskus 23g: Efektivna prehodna impedanca konektorjev (IEC 60512-23-7:2005)**

Connectors for electronic equipment – Tests and measurements – Part 23-7: Screening and filtering tests – Test 23g: Effective transfer impedance of connectors (IEC 60512-23-7:2005)

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**Connectors for electronic equipment –  
Tests and measurements  
Part 23-7: Screening and filtering tests –  
Test 23g: Effective transfer impedance of connectors  
(IEC 60512-23-7:2005)**

Connecteurs pour équipements

électroniques –

Essais et mesures

Partie 23-7: Essais d'écrantage

et de filtrage –

Essai 23g: Impédance de transfert

efficace des connecteurs

(CEI 60512-23-7:2005)

Steckverbinder für elektronische

Einrichtungen –

Mess- und Prüfverfahren

Teil 23-7: Prüfungen der Schirmung und

Dämpfung –

Prüfung 23g: Effektive Transferimpedanz

von Steckverbindern

(IEC 60512-23-7:2005)

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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 European Standard 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.

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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/1505/FDIS, future edition 1 of IEC 60512-23-7, 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 60512-23-7 on 2005-03-01.

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) 2005-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-03-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60512-23-7:2005 approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	- <sup>1)</sup>	International Electrotechnical Vocabulary (IEV) Chapter 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 <sup>2)</sup>	1994
IEC 60512-1-100	- <sup>1)</sup>	Connectors for electronic equipment - Tests and measurements Part 1-100: General - Applicable publications	EN 60512-1-100	2001 <sup>3)</sup>
IEC 60512-23-3	- <sup>1)</sup>	Electromechanical components for electronic equipment – Basic testing procedures and measuring methods Part 23-3: Test 23c: Shielding effectiveness of connectors and accessories	EN 60512-23-3	2001 <sup>3)</sup>
IEC 61196-1	1995	Radio-frequency cables Part 1: Generic specification - General, definitions, requirements and test methods	-	-

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1) Undated reference.

2) EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1.

3) Valid edition at date of issue.

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Première édition  
First edition  
2005-01

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**Connecteurs pour équipements électroniques –  
Essais et mesures –**

**Partie 23-7:  
Essais d'écrantage et de filtrage –  
Essai 23g: Impédance de transfert  
efficace des connecteurs**

**Connectors for electronic equipment –  
Tests and measurements –**

**Part 23-7:  
Screening and filtering tests –  
Test 23g: Effective transfer impedance  
of connectors**

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International Electrotechnical Commission  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**CONNECTORS FOR ELECTRONIC EQUIPMENT –  
TESTS AND MEASUREMENTS –**
**Part 23-7: Screening and filtering tests –  
Test 23g: Effective transfer impedance of connectors**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60512-23-7 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/1505/FDIS	48B/1509/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.

IEC 60512-23 consists of the following parts under the general title *Connectors for electronic equipment – Tests and measurements*

Part 23-3: Test 23c: Shielding effectiveness of connectors and accessories

Part 23-4: Screening and filtering tests – Test 23d: Transmission line reflections in the time domain

Part 23-7: Screening and filtering tests – Test 23g: Effective transfer impedance of connectors

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 23-7: Screening and filtering tests – Test 23g: Effective transfer impedance of connectors

#### 1 Scope and object

This part of IEC 60512-23 defines a test method which is intended to assess the screening effectiveness of screened non-circular multi-pole, electrically short, connectors by the measurement of the effective (surface) transfer impedance  $Z_{TE}$  expressed in  $\Omega$ , using a network analyzer, for frequencies up to 1 GHz. It is based on the line injection test method according IEC 61196-1 with a specific type of injection wire, which is adapted to the shapes of connectors. Due to the specific test set-up used in the method described hereinafter the connector screen itself is not verified, but the combination of two connectors (male and female) together, i.e. the test results include the effectiveness of the screens of the two connectors and the joint between the connectors and the joints of the cable to the connector.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[SIST EN 60512-23-7:2005](#)

IEC 60050(581), *International Electrotechnical Vocabulary (IEV) – Chapter 581: Electromechanical components for electronic equipment*

IEC 60068-1:1988, *Test requirements – Part 1: General requirements and guidance*

IEC 60512-1-100: *Electromechanical components for electronic equipment – Basic testing procedures and measuring methods – Part 1-100: General – Applicable publications*

IEC 60512-23-3: *Electromechanical components for electronic equipment – Basic testing procedures and measuring methods – Part 23-3: Screening and filtering tests – Test 23c: Screening effectiveness of connectors and accessories*

IEC 61196-1:1995, *Radiofrequency cables – Part 1: Generic specification – General, definitions, requirements and test methods*