

**Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -
Part 2-1: Tests - Vibration (sinusoidal)**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61300-2-1:2009 sisaldab Euroopa standardi EN 61300-2-1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.12.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.11.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 61300-2-1:2009 consists of the English text of the European standard EN 61300-2-1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.12.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 12.11.2009.

The standard is available from Estonian standardisation organisation.

ICS 33.180.20

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

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English version

**Fibre optic interconnecting devices and passive components -
Basic test and measurement procedures -
Part 2-1: Tests -
Vibration (sinusoidal)
(IEC 61300-2-1:2009)**

Dispositifs d'interconnexion
et composants passifs à fibres optiques -
Méthodes fondamentales d'essais
et de mesures -
Partie 2-1: Essais -
Vibrations (sinusoïdales)
(CEI 61300-2-1:2009)

Lichtwellenleiter -
Verbindungselemente
und passive Bauteile -
Grundlegende Prüf- und Messverfahren -
Teil 2-1: Prüfungen -
Schwingung (sinusförmig)
(IEC 61300-2-1:2009)

This European Standard was approved by CENELEC on 2009-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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.

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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 86B/2862/FDIS, future edition 3 of IEC 61300-2-1, prepared by SC 86B, Fibre optic interconnecting devices and passive components, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61300-2-1 on 2009-10-01.

This European Standard supersedes EN 61300-2-1:2003.

Changes from EN 61300-2-1:2003 are to reconsider the severity and the structure of this standard.

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) 2010-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2010-10-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61300-2-1:2009 was approved by CENELEC as a European Standard without any modification.

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 When 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 60068-2-6	¹⁾	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008 ²⁾
IEC 61300-1	¹⁾	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	EN 61300-1	2003 ²⁾
IEC 61300-3-1	¹⁾	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements - Visual examination	EN 61300-3-1	2005 ²⁾
IEC 61300-3-3	¹⁾	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-3: Examinations and measurements - Active monitoring of changes in attenuation and return loss	EN 61300-3-3	2009 ²⁾
IEC 61300-3-28	¹⁾	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements - Transient loss	EN 61300-3-28	2002 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-1: Tests – Vibration (sinusoidal)

1 Scope

This part of IEC 61300 evaluates the effects of vibration on fibre optic devices at the predominant frequency ranges and magnitudes that may be encountered during field service.

NOTE Most vibrations encountered in service are not of a simple harmonic nature. However, it has been shown that tests based on vibrations of this type are satisfactory to simulating actual service.

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.

IEC 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

IEC 61300-3-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1: Examinations and measurements – Visual examination*

IEC 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

IEC 61300-3-28, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-28: Examinations and measurements – Transient loss*

3 General description

This procedure is derived from IEC 60068-2-6, test Fc. The device under test (DUT) is mounted on a vibration generator and vibrated with a sinusoidal motion. The DUT is exposed to vibration in three mutually perpendicular directions, one of which is parallel to the optical axis. The vibration amplitude is specified either in terms of constant displacement or constant acceleration.

4 Apparatus

4.1 General

The apparatus shall be in accordance with IEC 60068-2-6, test Fc and consists of the following elements.