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

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

Part 2-1: Tests – Vibration (sinusoidal)

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IEC 61300-2-1 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: harmonizing with the test conditions in IEC 61753-1:2018 and revising severities.

The text of this International Standard is based on the following documents:

Draft	Report on voting
86B/4692/FDIS	86B/4724/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts of IEC 61300 series, published under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*, can be found on the IEC website.

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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~~ are encountered during field service on attenuation.

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 documents are referred to in the text in such a way that some or all of their content constitutes requirements 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)*

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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*

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Edition 4.0 2023-01

INTERNATIONAL STANDARD

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

Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures – Partie 2-1: Essais – Vibrations (sinusoïdales)



IEC 61300-2-1:2023-01(en-fr)

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Part 2-1: Tests – Vibration (sinusoidal)

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Part 2-1: Tests – Vibration (sinusoidal)

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

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DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

Partie 2-1: Essais – Vibrations (sinusoïdales)

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Cette quatrième édition annule et remplace la troisième édition, parue en 2009. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente: harmonisation avec les conditions d'essai de l'IEC 61753-1: 2018 et révision des sévérités.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
86B/4692/FDIS	86B/4724/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

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Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

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DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

Partie 2-1: Essais – Vibrations (sinusoïdales)

1 Domaine d'application

La présente partie de l'IEC 61300 permet d'apprécier les effets des vibrations sur l'affaiblissement des dispositifs fibroniques pour des plages et amplitudes de fréquences prépondérantes qui sont rencontrées pendant l'intervention sur site.

NOTE La plupart des vibrations rencontrées en service ne sont pas de la nature d'une harmonique simple. Cependant, il a été démontré que les essais utilisant des vibrations de ce type conviennent pour simuler les services réels.

2 Références normatives

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IEC 60068-2-6, *Essais d'environnement – Partie 2-6: Essais – Essai Fc: Vibrations (sinusoïdales)*

IEC 61300-1, *Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures – Partie 1: Généralités et recommandations*

IEC 61300-3-1, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-1: Examens et mesures – Examen visuel*

IEC 61300-3-28, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-28: Examens et mesures – Perte transitoire*