

INTERNATIONAL STANDARD

**Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -
Part 2-50: Tests - Fibre optic connector proof test with static load**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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IEC 61300-2-50 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 second edition cancels and replaces the first edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) addition of normative references to Clause 2;
- b) addition of the terms and definitions clause;
- c) addition of the straight pull test of pulling cap – plug – cable configuration;
- d) modification of the test procedure including provisions for hardened connectors;

- e) update of the severity of the test according to the component and performance category;
- f) addition of the details to be specified and reported clause.

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

Draft	Report on voting
86B/5246/FDIS	86B/5275/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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

1 Scope

This part of IEC 61300 describes a test to quantitatively assess the capability of a connector terminating a reinforced cable of any diameter or a buffered fibre, both single-mode and multimode, to withstand static loads without uncoupling of the connector, physical damage to the assembly or permanent degradation of optical performance.

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 60529, *Degrees of protection provided by enclosures (IP Code)*

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

IEC 61300-2-38:2023, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-38: Tests - Sealing for fibre optic sealed closures and hardened connectors using air pressure*

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 61300-3-35, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-35: Examinations and measurements - Visual inspection of fibre optic connectors and fibre-stub transceivers*

IEC 61753 (all parts), *Fibre optic interconnecting devices and passive components - Performance standards*

IEC 62005 (all parts), *Fibre optic interconnecting devices and passive components - Reliability*

IEC TR 62627-01, *Fibre optic interconnecting devices and passive components - Part 01: Fibre optic connector cleaning methods*

IEC TS 63334, *Fibre optic interconnecting devices and passive components - Conditions for testing the protection against dust and water ingress of passive optical protective housings and hardened fibre optic connectors (IP5X, IPX4, IPX5, IPX6)*