

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 2-7: Tests – Bending moment**

**Dispositifs d'interconnexion et composants passifs à fibres optiques –  
Procédures fondamentales d'essais et de mesures –  
Partie 2-7: Essais – Moment de flexion**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES  
AND PASSIVE COMPONENTS –  
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 2-7: Tests – Bending moment**

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International Standard IEC 61300-2-7 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 1995. It constitutes a technical revision.

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

- a) a complete reconsideration of the entire document, including additional normative references;
- b) clarification of the device under test (DUT);
- c) clarification of the relationship between severities, performance categories and the DUT.

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

FDIS	Report on voting
86B/3579A/FDIS	86B/3621/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.

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

The committee has decided that the contents of this publication will remain unchanged until the stability 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- withdrawn,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.

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

## Part 2-7: Tests – Bending moment

### 1 Scope

This part of IEC 61300 details a procedure for determining the suitability of a fibre optic device to withstand the environmental condition of a bending moment which may occur in actual use, storage and/or transport. The test is primarily intended to permit the observation of effects of a bending moment. The bending moment may result in effects that would destroy functional utility, cause loss of physical strength, and cause changes in other important mechanical properties. Degradation of optical properties may also occur. The specimen may be a component, a connector set, a splice or other device combination intended for fibre optic usage.

### 2 Normative references

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

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 tests and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

IEC 61300-3-4, *Fibre optic interconnecting devices and passive components – Basic tests and measurement procedures – Part 3-4: Examinations and measurements – Attenuation*

### 3 General description

The specimen is placed in an apparatus and subjected to a bending moment which is maintained at a given temperature for a specified duration, as specified in the relevant specification. The bending moment is smoothly applied to the specimen so as to bend its longitudinal axis.

### 4 Apparatus

#### 4.1 Design for a 1 piece or 3 piece DUT

This design is suitable for specimens which consist of one part, like splices.

The apparatus consists of the following elements:

- a) two steel rods placed at an appropriate distance in from the extreme ends of the DUT;