# INTERNATIONAL STANDARD



Second edition 2003-02

Fibre optic interconnecting devices and passive components -Basic test and measurement procedures -Part 2-2: Tests - Mating durability Dispositifs d'interconnexion et composants passifs à fibres optiques -Methodes fondamentales d'essais et de mesures -Partie 2-2: Essais - Durabilité de l'accouplement 60e2267dd/iec-61300-2-2-2003



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Part 2-2: Tests – Mating durability

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

## Part 2-2: Tests – Mating durability

# FOREWORD

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International Standard IEC 61300-2-2 bas 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 and constitutes a technical revision.

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

FDIS	Report on voting
86B/1780/FDIS	86B/1834/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 61300 consists of the following parts, under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures:* 

Part 1: General and guidance

Part 2: Tests

Part 3: Examinations and measurements

The committee has decided that the contents of this publication will remain unchanged until 2006. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

The contents of the corrigendum of April 2004 have been included in this copy.



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

Part 2-2: Tests – Mating durability

## 1 Scope

This part of IEC 61300 specifies a test to evaluate the effects of a number of successive cycles of engagement and separation of fibre optic connectors or other interconnecting devices on optical performance and mechanical degradation of the component under normal conditions of use.

## 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 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 8-3: Examinations and measurements – Monitoring change in attenuation and in return loss (multiple paths)

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

IEC 61300-3-6, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss

IEC/PAS 61300-3-35, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-35: Examinations and measurements – Fibre optic cylindrical connector endface visual inspection

# 3 General description

The devices under test (DUT) are subjected to a number of successive cycles of engagement and separation. If more than one coupling mechanism is involved, each cycle of engagement shall be conducted with all other mechanisms properly engaged.

# 4 Apparatus

The apparatus shall include the following elements.

#### 4.1 Fixturing

The device should be tested under normal conditions of use. Where appropriate, suitable clamps, jaws or other means may be used to hold the mating parts of the device in proper alignment during the test.