



IEC 61300-2-2

Edition 3.0 2009-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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 –
Méthodes fondamentales d'essais et de mesures –
Partie 2-2: Essais – Durabilité de l'accouplement





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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

ICS 33.180.20

ISBN 2-8318-1023-4

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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 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition, published in 2003, and constitutes a technical revision. Specific technical changes from the previous edition include a mating durability test for a plug-socket configuration, a new measurement condition and a new severity level.

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

FDIS	Report on voting
86B/2772/FDIS	86B/2804/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 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 publication will remain unchanged until the maintenance result 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

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

Part 2-2: Tests – Mating durability

1 Scope

The purpose of this part of IEC 61300 is 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 usage conditions.

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 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 test and measurement procedures – Part 3-4: Examinations and measurements – Attenuation*

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.

4.2 Force applicator

Use a means of applying the force or torque to engage and separate the specimen. Unless otherwise stated, the force to engage the device shall be applied manually. Where required, a means of applying the engagement force or torque shall be specified.