

INTERNATIONAL STANDARD

IEC
61300-2-17

Second edition
2003-02

Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –

Part 2-17: Tests – Cold

*Dispositifs d'interconnexion et composants passifs
à fibres optiques –
Méthodes fondamentales d'essais et de mesures –*

*Partie 2-17:
Essais – Froid*



Reference number
IEC 61300-2-17:2003(E)

Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

Further information on IEC publications

The technical content of IEC publications is kept under constant review by the IEC, thus ensuring that the content reflects current technology. Information relating to this publication, including its validity, is available in the IEC Catalogue of publications (see below) in addition to new editions, amendments and corrigenda. Information on the subjects under consideration and work in progress undertaken by the technical committee which has prepared this publication, as well as the list of publications issued, is also available from the following:

- **IEC Web Site** (www.iec.ch)

- **Catalogue of IEC publications**

The on-line catalogue on the IEC web site (http://www.iec.ch/searchpub/cur_fut.htm) enables you to search by a variety of criteria including text searches, technical committees and date of publication. On-line information is also available on recently issued publications, withdrawn and replaced publications, as well as corrigenda.

- **IEC Just Published**

This summary of recently issued publications (http://www.iec.ch/online_news/justpub/jp_entry.htm) is also available by email. Please contact the Customer Service Centre (see below) for further information.

- **Customer Service Centre**

If you have any questions regarding this publication or need further assistance, please contact the Customer Service Centre:

Email: custserv@iec.ch
Tel: +41 22 919 02 11
Fax: +41 22 919 03 00

INTERNATIONAL STANDARD

IEC 61300-2-17

Second edition
2003-02

Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –

Part 2-17: Tests – Cold

*Dispositifs d'interconnexion et composants passifs
à fibres optiques –
Méthodes fondamentales d'essais et de mesures –*

*Partie 2-17:
Essais – Froid*

© IEC 2003 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

F

For price, see current catalogue

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-17: Tests – Cold

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61300-2-17 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.

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

FDIS	Report on voting
86B/1777/FDIS	86B/1831/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 2007. 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.

Withdrawing

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

<https://standards.iteh.ai/standards/iec/61300-2-17:2003>

<https://standards.iteh.ai/standards/iec/61300-2-17:2003>

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

Part 2-17: Tests – Cold

1 Scope

This part of IEC 61300 details a procedure for determining the suitability of a fibre optic device to withstand environmental conditions of extended low temperature (cold), which may occur in use, storage and/or transport. This procedure does not assess the ability of a device to operate during temperature variations; in this case, IEC 61300-2-22 would be used.

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 60068-2-1, *Environmental testing – Part 2: Tests – Test A: Cold*

IEC 61300-2-22, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-22: Tests – Change of temperature*

3 General description

This procedure is conducted in accordance with IEC 60068-2-1, test Ab. The DUT is placed in a chamber at ambient temperature. The temperature is then lowered to test temperature at a rate not to exceed 1 °C/min averaged over a maximum period of 5 min, and maintained at that temperature for the specified duration. The chamber temperature is then raised to ambient and the DUT is allowed to attain ambient temperature before final measurements are made.

4 Apparatus

4.1 Chamber

The apparatus consists of an environmental chamber in accordance with IEC 60068-2-1, test Ab. The chamber shall be capable of housing the DUT and of allowing access for measurement during conditioning, if required. It shall also be capable of maintaining the specified temperature and tolerance. Forced air circulation may be used to maintain homogeneous conditions. Care shall be taken to ensure that the DUT is not directly exposed to the heating or cooling elements.

4.2 Other apparatus

Additional apparatus may be necessary to perform the measurements specified by the relevant specification.