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Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-2: Examination and measurements – Polarization dependent loss in a single-mode fibre optic device

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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International Standard IEC 61300-3-2 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 1999. It constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- This edition includes both the all-states method of the previous edition as well as the Mueller matrix method from IEC 61300-3-12.

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

FDIS	Report on voting
86B/2783/FDIS	86B/2811/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.

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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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- withdrawn,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

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

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

Part 3-2: Examination and measurements – Polarization dependent loss in a single-mode fibre optic device

1 Scope

This part of IEC 61300 specifies measurement methods to determine the dependence of loss in a single-mode fibre optic device to changes in polarization. This procedure focuses on measurements with a fixed wavelength source; therefore, this procedure is applicable to devices whose properties at a single wavelength can represent those over the broader wavelength band. Typical examples of such devices are single-mode interconnecting devices and passive components, including connectors, splices, branching devices, attenuators, isolators, and switches. The maximum observed variation in transmission loss is referred to as polarization-dependent-loss (PDL).

This standard applies to broadband devices and not to narrow-band devices like filters and multiplexers. The reader is referred to IEC 61300-3-29 for such measurements.

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 61300-3-29, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-29: Examinations and measurements – Measurement techniques for characterising the amplitude of the spectral transfer function of DWDM components*