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Irish Standard
I.S. EN 61300-3-29:2014

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-29: Examinations and measurements - Spectral transfer characteristics of DWDM devices

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EUROPÄISCHE NORM

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July 2014

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Supersedes EN 61300-3-29:2006

English Version

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-29: Examinations and measurements - Spectral transfer characteristics of DWDM devices (IEC 61300-3-29:2014)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Procédures fondamentales d'essais et de mesures - Partie 3-29: Examens et mesures - Caractéristiques de transfert spectral des dispositifs DWDM (CEI 61300-3-29:2014)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Messverfahren - Teil 3-29: Untersuchungen und Messungen - Spektrale Übertragungsfunktion von DWDM-Bauteilen (IEC 61300-3-29:2014)

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Foreword

The text of document 86B/3718/FDIS, future edition 2 of IEC 61300-3-29, prepared by SC 86B "Fibre optic interconnecting devices and passive components" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61300-3-29:2014.

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– latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-01-23
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Publication	Year	Title	EN/HD	Year
IEC 60050-731	-	International Electrotechnical Vocabulary (IEV) Chapter 731: Optical fibre communication	-	-
IEC 61300-3-2	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures Part 3-2: Examinations and measurements - Polarization dependent loss in a single-mode fibre optic device	EN 61300-3-2	-
IEC 61300-3-7	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures Part 3-7: Examinations and measurements - Wavelength dependence of attenuation and return loss of single mode components	EN 61300-3-7	-
IEC 62074-1	-	Fibre optic interconnecting devices and passive components - Fibre optic WDM devices Part 1: Generic specification	EN 62074-1	-

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Part 3-29: Examinations and measurements – Spectral transfer characteristics of DWDM devices

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Dispositifs d'interconnexion et composants passifs à fibres optiques – Procédures fondamentales d'essais et de mesures – Partie 3-29: Examens et mesures – Caractéristiques de transfert spectral des dispositifs DWDM

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

Part 3-29: Examinations and measurements – Spectral transfer characteristics of DWDM devices

FOREWORD

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International Standard IEC 61300-3-29 has been prepared by sub-committee 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 2005. It constitutes a technical revision.

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

– terms and definitions have been added and reconsidered in order to be harmonized with IEC 62074-1;
– characterizations of the device under test have been reviewed;

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– details to be specified have been reconsidered.

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

FDIS	Report on voting
86B/3718/FDIS	86B/3758/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.

The 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 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

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

Part 3-29: Examinations and measurements – Spectral transfer characteristics of DWDM devices

1 Scope

This part of IEC 61300 identifies two basic measurement methods for characterizing the spectral transfer functions of DWDM devices.

The transfer functions are the functions of transmittance dependent of wavelengths. In this standard, optical attenuations are also used.

NOTE In this standard, transfer functions are expressed by $T(\lambda)$ and optical attenuations are expressed by $A(\lambda)$.

The transfer functions can be used to produce measurements of insertion loss (IL), polarization dependent loss (PDL), isolation, centre wavelength, bandwidth (BW) and other optical performances.

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 60050-731, *International Electrotechnical Vocabulary – Chapter 731: Optical fibre communication*

IEC 61300-3-2, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-2: Examinations and measurements – Polarization dependent loss in a single-mode fibre optic device*

IEC 61300-3-7, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-7: Examinations and measurements – Wavelength dependence of attenuation and return loss of single mode components*

IEC 62074-1, *Fibre optic interconnecting devices and passive components – Fibre optic WDM devices – Part 1: generic specification*

3 Terms, definitions, abbreviations and symbols

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-731, as well as the following, apply.

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