



BSI Standards Publication

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

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

National foreword

This British Standard is the UK implementation of EN 61300-3-29:2014. It is identical to IEC 61300-3-29:2014. It supersedes BS EN 61300-3-29:2006 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Fibre optic interconnecting devices and passive components.

A list of organizations represented on this committee can be obtained on request to its secretary.

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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
(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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European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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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.

The following dates are fixed:

- 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
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-04-23

This document supersedes EN 61300-3-29:2006.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61300-3-29:2014 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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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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.