

SLOVENSKI STANDARD

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Optični spojni elementi in pasivne komponente - Osnovni preskusni in merilni postopki - 3-29. del: Preiskave in meritve - Spektralne prenosne karakteristike naprav DWDM (IEC 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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Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Messverfahren - Teil 3-29: Untersuchungen und Messungen - Spektrale Übertragungsfunktion von DWDM-Bauteilen

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

Ta slovenski standard je istoveten z: EN 61300-3-29:2014

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33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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EUROPEAN STANDARD

EN 61300-3-29

NORME EUROPÉENNE

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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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Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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.

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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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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**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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**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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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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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;

– 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

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

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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.

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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.