
Optični spojni elementi in pasivne komponente - Optični vmesniki konektorja optičnih vlaken - 2-5. del: Povezava enorodnih kotnih fizično dotikajočih se vlaken z nepremaknjeno disperzijo za aplikacijo v obliki referenčnega konektorja (IEC 61755-2-5:2015)

Fibre optic interconnecting devices and passive components - Fibre optic connector optical interfaces - Part 2-5: Connection of non-dispersion shifted single-mode angled physically contacting fibres for reference connector application (IEC 61755-2-5:2015)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Optische Schnittstellen von Lichtwellenleiter-Steckverbindern - Teil 2-4: Optische Schnittstelle von nicht-dispersionsverschobenen, abgeschrägten Einmodenfasern mit physikalischem Kontakt für die Anwendung mit Referenzsteckverbindern (IEC 61755-2-5:2015)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Interfaces optiques de connecteurs pour fibres optiques - Partie 2-5: Connexion de fibres unimodales à dispersion non décalée en contact physique avec angle, avec polissage, pour applications en tant que connecteurs de référence (IEC 61755-2-5:2015)

Ta slovenski standard je istoveten z: EN 61755-2-5:2015

ICS:

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
-----------	---------------------------------------	-------------------------------------

SIST EN 61755-2-5:2015

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 61755-2-5:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/4834e474-40aa-496b-9e26-a1353372eef5/sist-en-61755-2-5-2015>

EUROPEAN STANDARD

EN 61755-2-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2015

ICS 33.180.20

English Version

**Fibre optic interconnecting devices and passive components -
Connector optical interfaces - Part 2-5: Connection parameters
of non-dispersion shifted single-mode physically contacting
fibres - Angled for reference connection applications
(IEC 61755-2-5:2015)**

Dispositifs d'interconnexion et composants passifs à fibres optiques - Interfaces optiques de connecteurs pour fibres optiques - Partie 2-5: Connexion de fibres unimodales à dispersion non décalée en contact physique avec angle, avec polissage, pour applications en tant que connecteurs de référence
(IEC 61755-2-5:2015)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Optische Schnittstellen von Lichtwellenleiter-Steckverbindern - Teil 2-4: Optische Schnittstelle von nicht-dispersionsverschobenen, abgeschrägten Einmodenfasern mit physikalischem Kontakt für die Anwendung mit Referenzsteckverbindern
(IEC 61755-2-5:2015)

iTeh STANDARD PREVIEW

This European Standard was approved by CENELEC on 2015-02-12. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

Foreword

The text of document 86B/3846/FDIS, future edition 1 of IEC 61755-2-5, 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 61755-2-5:2015.

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) 2015-11-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-02-12

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 61755-2-5:2015 was approved by CENELEC as a European Standard without any modification.

(standards.iteh.ai)

[SIST EN 61755-2-5:2015](https://standards.iteh.ai/catalog/standards/sist/4834e474-40aa-496b-9e26-a1353372ee5/sist-en-61755-2-5-2015)

<https://standards.iteh.ai/catalog/standards/sist/4834e474-40aa-496b-9e26-a1353372ee5/sist-en-61755-2-5-2015>

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 60793-2-50	-	Optical fibres -- Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50	-
IEC 61300-3-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-4: Examinations and measurements - Attenuation	EN 61300-3-4	-
IEC 61300-3-42	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-42: Examinations and measurements - Attenuation of single mode alignment sleeves and/or adaptors with resilient alignment sleeves	EN 61300-3-42	-
IEC 61755-2-1	-	Fibre optic connector optical interfaces -- Part 2-1: Optical interface standard single mode non-angled physically contacting fibres	EN 61755-2-1	-
IEC 61755-2-2	-	Fibre optic connector optical interfaces -- Part 2-2: Optical interface standard single mode 8 degrees angled physically contacting fibres	EN 61755-2-2	-
IEC 61755-3 (mod) series		Fibre optic connector optical interfaces	EN 61755-3	series
IEC/TR 62627-04	-	Fibre optic interconnecting devices and passive components - Part 04: Example of uncertainty calculation: Measurement of the attenuation of an optical connector	-	-

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 61755-2-5:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/4834e474-40aa-496b-9e26-a1353372eef5/sist-en-61755-2-5-2015>



IEC 61755-2-5

Edition 1.0 2015-01

INTERNATIONAL STANDARD



**Fibre optic interconnecting devices and passive components – Connector optical interfaces –
Part 2-5: Connection parameters of non-dispersion shifted single-mode physically contacting fibres – Angled for reference connection applications**

<https://standards.iteh.ai/catalog/standards/sist/4834e474-40aa-496b-9e26-a1353372ee5/sist-en-61755-2-5-2015>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.180.20

ISBN 978-2-8322-2194-5

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Performance grades	6
4 Description	6
5 Criteria for a fit within performance grades	7
5.1 General.....	7
5.2 Attenuation grades and criteria	7
6 Use of selected fibre to assemble reference connector plugs.....	9
7 Reference adaptor	9
8 Attenuation measurement uncertainty contribution.....	9
Annex A (informative) Example of determination of the attenuation measurement uncertainty.....	10
Figure 1 – Representation of fibre core position of single connector plug under the assumption of worst case alignment with identical connector plug.....	8
Figure A.1 – Attenuation measurement uncertainty contribution for Grade 1 reference connectors	10
Table 1 – Single-mode attenuation grades at 1 310 nm (dB)	6
Table 2 – Mode field diameter and fibre core nominal index of refraction for fibre to be used in reference connector plugs	7
Table 3 – Measurement uncertainty contribution of reference connectors	9

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
CONNECTOR OPTICAL INTERFACES –**

**Part 2-5: Connection parameters of non-dispersion
shifted single-mode physically contacting fibres –
Angled for reference connection applications**

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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61755-2-5 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/3846/FDIS	86B/3867/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.