
Optični spojni elementi in pasivne komponente - Izvedbeni standard - 085-2. del: Enorodovni elementi CWDM z repki, brez konektorjev, za kategorijo C - Notranje nadzorovano okolje (IEC 61753-085-02:2021)

Fibre optic interconnecting devices and passive components - Performance standard - Part 085-02: Non-connectorized single-mode pigtailed CWDM devices for category C - Indoor controlled environment (IEC 61753-085-02:2021)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Betriebsverhalten - Teil 085-2: Nicht mit Steckern versehene Einmoden-CWDM-Bauteile mit Anschlussfaser für die Kategorie C - Kontrollierte Umgebung (IEC 61753-085-02:2021)

[SIST EN IEC 61753-085-02:2021](https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-17a826ac26/sist-en-iec-61753-085-02-2021)

Norme de qualité de fonctionnement des dispositifs d'interconnexion et composants passifs à fibres optiques - Partie 085-2: Dispositifs CWDM à fibre amorce unimodale non connectés de catégorie C - Environnement contrôlé (IEC 61753-085-02:2021)

Ta slovenski standard je istoveten z: EN IEC 61753-085-02:2021

ICS:

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

SIST EN IEC 61753-085-02:2021 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 61753-085-02:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021>

EUROPEAN STANDARD

EN IEC 61753-085-02

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2021

ICS 33.180.10

English Version

Fibre optic interconnecting devices and passive components -
Performance standard - Part 085-02: Non-connectorized single-
mode pigtailed CWDM devices for category C - Indoor controlled
environment
(IEC 61753-085-02:2021)

Norme de qualité de fonctionnement des dispositifs
d'interconnexion et composants passifs à fibres optiques -
Partie 085-2: Dispositifs CWDM à fibre amorce unimodale
non connectorisés de catégorie C - Environnement contrôlé
(IEC 61753-085-02:2021)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Betriebsverhalten - Teil 085-2: Nicht mit Steckern
versehene Einmoden-CWDM-Bauteile mit Anschlussfaser
für die Kategorie C - Kontrollierte Umgebung
(IEC 61753-085-02:2021)

This European Standard was approved by CENELEC on 2021-08-11. 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.

[SIST EN IEC 61753-085-02:2021](https://standards.iteh.ai/SIST/EN/IEC/61753-085-02/2021)

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

EN IEC 61753-085-02:2021 (E)**European foreword**

The text of document 86B/4319/CDV, future edition 1 of IEC 61753-085-02, 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 IEC 61753-085-02:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-05-11 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-08-11 document have to be withdrawn

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice**iTeh STANDARD PREVIEW**

The text of the International Standard IEC 61753-085-02:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

[SIST EN IEC 61753-085-02:2021
https://standards.iteh.ai/catalog/standards/sist/5dd281e5-618a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021](https://standards.iteh.ai/catalog/standards/sist/5dd281e5-618a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021)
IEC 61300 (series) NOTE Harmonized as EN 61300 (series)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 Where 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 IEC 60793-2-50	-
IEC 60794-2-50	-	Optical fibre cables - Part 2–50: Indoor optical fibre cables - Family specification for simplex and duplex cables for use in terminated cable assemblies	EN IEC 60794-2-50	-
IEC 61300-2-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2–1: Tests - Vibration (sinusoidal)	EN 61300-2-1	-
IEC 61300-2-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2–4: Tests - Fibre or cable retention	EN IEC 61300-2-4	-
IEC 61300-2-5	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2–5: Tests - Torsion	EN 61300-2-5	-
IEC 61300-2-9	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2–9: Tests - Shock	EN 61300-2-9	-
IEC 61300-2-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2–14: Tests - High optical power	EN IEC 61300-2-14	-
IEC 61300-2-17	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2–17: Tests - Cold	EN 61300-2-17	-

EN IEC 61753-085-02:2021 (E)

IEC 61300-2-18	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-18: Tests - Dry heat - High temperature endurance	EN 61300-2-18	-
IEC 61300-2-19	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady-state)	EN 61300-2-19	-
IEC 61300-2-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	EN 61300-2-22	-
IEC 61300-2-42	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-42: Tests - Static side load for strain relief	EN 61300-2-42	-
IEC 61300-2-44	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-44: Tests - Flexing of the strain relief of fibre optic devices	EN 61300-2-44	-
IEC 61300-3-2	-	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	EN 61300-3-2	-
IEC 61300-3-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-6: Examinations and measurements - Return loss	EN 61300-3-6	-
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 61300-3-29	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-29: Examinations and measurements - Spectral transfer characteristics of DWDM devices	EN 61300-3-29	-
IEC 61753-1	2018	Fibre optic interconnecting devices and passive components - Performance standard - Part 1: General and guidance	EN IEC 61753-1	2018
IEC 62074-1	-	Fibre optic interconnecting devices and passive components - Fibre optic WDM devices - Part 1: Generic specification	EN 62074-1	-
IEC/TS 62627-09	-	Fibre optic interconnecting devices and passive components - Vocabulary for passive optical devices	-	-



INTERNATIONAL STANDARD

**Fibre optic interconnecting devices and passive components – Performance standard –
Part 085-02: Non-connectorized single-mode pigtailed CWDM devices for category C – Indoor controlled environment**

STANDARD PREVIEW
(standards.iteh.ai)
SIST EN IEC 61753-085-02:2021
<https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.180.10

ISBN 978-2-8322-9985-2

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

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Test	6
5 Test report	7
6 Performance requirements	7
6.1 Reference components	7
6.2 Dimensions	7
6.3 Sample size	7
6.4 Test details and requirements	7
Annex A (normative) Sample size	13
Bibliography	14
Table 1 – Single-mode spectral bands	7
Table 2 – Test details and requirements for category C	8
Table A.1 – Sample size and grouping of tests	13

[SIST EN IEC 61753-085-02:2021](https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021)
<https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND
PASSIVE COMPONENTS – PERFORMANCE STANDARD –****Part 085-02: Non-connectorized single-mode pigtailed CWDM
devices for category C – Indoor controlled environment**

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.

IEC 61753-085-02 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This first edition cancels and replaces IEC 61753-085-2 published in 2008. This edition constitutes a technical revision.

This edition includes the following specific technical change with respect to IEC 61753-085-2: change of test conditions harmonizing with IEC 61753-1:2018.

The text of this International Standard is based on the following documents:

Draft	Report on voting
86B/4319/CDV	86B/4377B/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 61753 series, published under the general title *Fibre optic interconnecting devices and passive components – Performance standard*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 61753-085-02:2021](https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021)
<https://standards.iteh.ai/catalog/standards/sist/3dd281e3-b18a-4273-bd28-12a826eac2cf/sist-en-iec-61753-085-02-2021>

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –

Part 085-02: Non-connectorized single-mode pigtailed CWDM devices for category C – Indoor controlled environment

1 Scope

This part of IEC 61753 contains the minimum initial test and measurement requirements and severities which a fibre-optic pigtailed coarse wavelength division multiplexing (CWDM) device satisfies in order to be categorised as meeting the requirements of category C (indoor controlled environment), as defined in Annex A of IEC 61753-1:2018. CWDM is defined in IEC 62074-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60793-2-50, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*

IEC 60794-2-50, *Optical fibre cables – Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies*

IEC 61300-2-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal)*

IEC 61300-2-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-4: Tests – Fibre or cable retention*

IEC 61300-2-5, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-5: Tests – Torsion*

IEC 61300-2-9, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-9: Tests – Shock*

IEC 61300-2-14, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – High optical power*

IEC 61300-2-17, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-17: Tests – Cold*

IEC 61300-2-18, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-18: Tests – Dry heat – High temperature endurance*

IEC 61300-2-19, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Damp heat (steady state)*

IEC 61300-2-22, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-22: Tests – Change of temperature*