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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

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National foreword

This British Standard is the UK implementation of EN IEC 61753-085-02:2021. It is identical to IEC 61753-085-02:2021. It supersedes BS IEC 61753-085-02:2021, which is withdrawn.

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

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Amendments/corrigenda issued since publication

Date	Text affected
30 September 2021	This corrigendum renumbers BS IEC 61753-085-02:2021 as BS EN IEC 61753-085-02:2021

EUROPEAN STANDARD **EN IEC 61753-085-02**

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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)

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024–08–11

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IEC 61300 (series) NOTE Harmonized as EN 61300 (series)

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(normative)

Normative references to international publications with their corresponding European publications

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

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Publication	Year	Title	EN/HD	Year
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	-

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		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)	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	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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

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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.

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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
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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*