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**Optični spojni elementi in pasivne komponente - Tehnični standard - 141-2. del:**  
**Optični pasivni kompenzator barvne razpršenosti (disperzije), ki uporablja**  
**enorodno vlakno s kompenzacijo razpršenosti (disperzije) za kategorijo C -**  
**Nadzorovana okolja (IEC 61753-141-2:2011)**

Fibre optic interconnecting devices and passive components - Performance standard -  
Part 141-2: Fibre optic passive chromatic dispersion compensator using single-mode  
dispersion compensating fibre for category C - Controlled environments (IEC 61753-141-  
2:2011)

**STANDARD PREVIEW**  
**(standards.iteh.ai)**

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Betriebsverhalten - Teil  
141-2: Passiver chromatischer Dispersionskompensator mit  
dispersionskompensierender Einmodenfaser für die Kategorie C - Kontrollierte  
Umgebung (IEC 61753-141-2:2011)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Norme de  
performance - Partie 141-2: Compensateur de dispersion chromatique passif à fibres  
optiques utilisant une fibre à compensation de dispersion unimodale pour la catégorie C -  
Environnements contrôlés (CEI 61753-141-2:2011)

**Ta slovenski standard je istoveten z: EN 61753-141-2:2011**

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**ICS:**

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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**SIST EN 61753-141-2:2011**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61753-141-2**

May 2011

ICS 33.180.20

English version

**Fibre optic interconnecting devices and passive components -  
Performance standard -  
Part 141-2: Fibre optic passive chromatic dispersion compensator using  
single-mode dispersion compensating fibre for category C -  
Controlled environments  
(IEC 61753-141-2:2011)**

Dispositifs d'interconnexion et composants  
passifs à fibres optiques -  
Norme de performance -  
Partie 141-2: Compensateur de dispersion  
chromatique passif à fibres optiques  
utilisant une fibre à compensation de  
dispersion unimodale pour la catégorie C -  
Environnements contrôlés  
(CEI 61753-141-2:2011)

Lichtwellenleiter -  
Verbindungselemente und passive  
Bauteile -  
Betriebsverhalten -  
Teil 141-2: Passiver chromatischer  
Dispersionskompensator mit  
dispersionskompensierender  
Einmodenfaser für die Kategorie C -  
Kontrollierte Umgebung  
(IEC 61753-141-2:2011)

SIST EN 61753-141-2:2011

This European Standard was approved by CENELEC on 2011-05-25. 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.

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**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 86B/3162/FDIS, future edition 1 of IEC 61753-141-2, 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 was approved by CENELEC as EN 61753-141-2 on 2011-05-25.

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

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2012-02-25
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2014-05-25

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61753-141-2:2011 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:

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61753-1	NOTE Harmonized as EN 61753-1
IEC 62074-1	NOTE Harmonized as EN 62074-1.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<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 61300-2-1	-	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/cable retention	EN 61300-2-4	-
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 + AC:2011	-
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	-
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 connectors	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	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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 61300-3-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-4: Examinations and measurements - Attenuation	EN 61300-3-4	-
IEC 61300-3-7	-	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	FprEN 61300-3-7 <sup>1)</sup>	-
IEC 61300-3-32	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-32: Examinations and measurements - Polarisation mode dispersion measurement for passive optical components	EN 61300-3-32	-
IEC/PAS 61300-3-38-	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-38: Group delay and chromatic dispersion	-	-
IEC 61753-021-2	-	Fibre optic interconnecting devices and passive components performance standard - Part 021-2: Grade C/3 single-mode fibre optic connectors for category C - Controlled environment	EN 61753-021-2	-
IEC 61978-1	-	Fibre optic interconnecting devices and passive components - Fibre optic passive chromatic dispersion compensators - Part 1: Generic specification	EN 61978-1	-
ITU-T Recommendation G.Sup39	-	Optical system design and engineering considerations	-	-

<sup>1)</sup> At draft stage.



IEC 61753-141-2

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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Performance standard –**

**Part 141-2: Fibre optic passive chromatic dispersion compensator using single-mode dispersion compensating fibre for category C – Controlled environments**

<https://standards.iteh.ai/catalog/standards/sist/4d28f8a9-00fc-4ac8-aa7a-3532ba41014c/sist-en-61753-141-2-2011>

**Dispositifs d'interconnexion et composants passifs à fibres optiques – Norme de performance –**

**Partie 141-2: Compensateur de dispersion chromatique passif à fibres optiques utilisant une fibre à compensation de dispersion unimodale pour la catégorie C – Environnements contrôlés**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

# **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –**

## **Part 141-2: Fibre optic passive chromatic dispersion compensator using single-mode dispersion compensating fibre for category C – Controlled environments**

## FOREWORD

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International Standard IEC 61753-141-2 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/3162/FDIS	86B/3200/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.

A list of all parts of 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 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 – PERFORMANCE STANDARD –

### Part 141-2: Fibre optic passive chromatic dispersion compensator using single-mode dispersion compensating fibre for category C – Controlled environments

#### 1 Scope

This part of IEC 61753 contains the minimum test and measurement requirements and severity levels that a fibre optic passive chromatic dispersion compensator (PCDC) using single-mode dispersion compensating fibre (DCF) must satisfy in order to be categorised as meeting the IEC standard, Category C – Controlled Environments. Generally, PCDCs are used to reduce the magnitude of chromatic dispersion (CD) between regenerators by adding CD to the span that has a sign opposite to the total CD of the cabled fibre and components. The requirements cover non-connectorised PCDCs with single-mode fibre at both ends used in single-channel transmission and wavelength division multiplexing (WDM) transmission in single mode fibres (SMF) (IEC60793-2-50, B1/B2/B4).

#### 2 Normative references

The following referenced documents are indispensable for the application 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 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/cable retention*

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

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*

IEC 61300-2-42, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-42: Tests – Static side load for connectors*