

# SLOVENSKI STANDARD

## SIST EN 61753-086-6:2011

01-maj-2011

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**Tehnični standard za optične spojne elemente in pasivne komponente - 086-6. del:  
Naprave brez konektorjev za širokopasovni valovni multipleks (WWDM) za  
enorodni dvosmerni 1490/1550 nm navzdolnji in 1310 nm navzgornji prenos za  
kategorijo O - Nenadzorovano okolje (IEC 61753-086-6:2010)**

Fibre optic interconnecting devices and passive components performance standard -  
Part 086-6: Non-connectorised single-mode bidirectional 1490 / 1550 nm downstream  
and 1310 nm upstream WWDM devices for category O - Uncontrolled environment (IEC  
61753-086-6:2010)

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

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Betriebsverhalten - Teil  
086-6: Nicht mit Steckern versehene bidirektionale 1490/1550-nm-downstream-1310-nm  
-upstream-Einmoden WWDM Bauteile für die Kategorie O Kontrollierte Umgebung (IEC  
61753-086-6:2010)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Norme de  
performance - Partie 086-6: Dispositifs WWDM unimodaux non connectorisés  
bidirectionnels 1 490 / 1 550 nm en voie descendante et 1 310 nm en voie montante  
pour la catégorie O - Environnement non contrôlé (CEI 61753-086-6:2010)

**Ta slovenski standard je istoveten z: EN 61753-086-6:2011**

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**ICS:**

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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**SIST EN 61753-086-6:2011**

**en**

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[SIST EN 61753-086-6:2011](#)

<https://standards.iteh.ai/catalog/standards/sist/e9548465-ff3a-4624-a5c8-bb74638fcf0a/sist-en-61753-086-6-2011>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61753-086-6**

March 2011

ICS 33.180.20

English version

**Fibre optic interconnecting devices and passive components -  
Performance standard -  
Part 086-6: Non-connectorized single-mode bidirectional 1 490 / 1 550 nm  
downstream and 1 310 nm upstream WWDM devices for category O -  
Uncontrolled environment  
(IEC 61753-086-6:2010)**

Dispositifs d'interconnexion et composants  
passifs à fibres optiques -  
Norme de performance -  
Partie 086-6: Dispositifs WWDM  
unimodaux non connectorisés  
bidirectionnels 1 490 / 1 550 nm en voie  
descendante et 1 310 nm en voie  
montante pour la catégorie O  
Environnement non contrôlé  
(CEI 61753-086-6:2010)

Lichtwellenleiter -  
Verbindungselemente und passive  
Bauteile -  
Betriebsverhalten -  
Teil 086-6: Nicht mit Steckeverbindern  
versehene bidirektionale 1 490/1 550-nm-  
downstream-1 310-nm-upstream-  
Einmoden-WWDM-Bauteile für die  
Kategorie O -  
Unkontrollierte Umgebung  
(IEC 61753-086-6:2010)

This European Standard was approved by CENELEC on 2011-01-18. 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 Central Secretariat or to any CENELEC member.

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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/3094/FDIS, future edition 1 of IEC 61753-086-6, 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 61753-086-6 on 2010-12-27.

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) 2011-09-27
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-12-27

Annex ZA has been added by CENELEC.

## Endorsement notice

The text of the International Standard IEC 61753-086-6:2010 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:

IEC 62074-1 NOTE Harmonized as EN 62074-1  
<https://standards.iteh.ai/catalog/standards/sist-e9548465-f13a-4624-a5c8-bb74638fcf0a/sist-en-61753-086-6-2011>

## 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 61300-2-5	-	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 - Optical power handling and damage threshold characterization	EN 61300-2-14	-
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	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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 61300-2-48	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-48: Tests - Temperature-humidity cycling	EN 61300-2-48	-
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 61300-3-6	-	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	EN 61300-3-7	-
IEC 61300-3-20	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-20: Examinations and measurements - Directivity of fibre optic branching devices	EN 61300-3-20 <a href="https://standards.iec.ch/elnbd/standards/61300-3-20-1673a-4624-a5c8-1171628640433-61753-086-6-2011">SIST EN 61753-086-6-2011</a>	-
IEC 61753-1	2007	Fibre optic interconnecting devices and passive components performance standard - Part 1: General and guidance for performance standards	EN 61753-1	2007



# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



Fibre optic interconnecting devices and passive components – Performance standard – [standards.iteh.ai](http://standards.iteh.ai)

Part 086-6: Non-connectorized single-mode bidirectional 1 490 / 1 550 nm downstream and 1 310 nm upstream WWDM devices for category O – Uncontrolled environment [SIST EN 61753-086-6-2011](http://standards.iteh.ai/catalog/standards/sist/en-61753-086-6-2011)

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

Partie 086-6: Dispositifs WWDM unimodaux non connectorisés bidirectionnels 1 490 / 1 550 nm en voie descendante et 1 310 nm en voie montante pour la catégorie O – Environnement non contrôlé

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

P

ICS 33.180.20

ISBN 978-2-88912-299-8

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

**Part 086-6: Non-connectorized single-mode bidirectional 1 490 / 1 550 nm  
downstream and 1 310 nm upstream WWDM devices for category O –  
Uncontrolled environment**

## FOREWORD

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International Standard IEC 61753-086-6 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/3094/FDIS	86B/3132/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 in the IEC 61753 series, under the general title *Fibre optic interconnecting devices and passive components performance standards*, 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 086-6: Non-connectorized single-mode bidirectional 1 490 / 1 550 nm downstream and 1 310 nm upstream WWDM devices for category O – Uncontrolled environment**

#### **1 Scope**

This part of IEC 61753 contains the minimum initial performance, test and measurement requirements and severities which a fibre optic pigtailed 1 490 / 1 550 nm downstream and 1 310 nm upstream wide wavelength division multiplexing (WWDM) passive optical network (PON) device must satisfy in order to be categorized as meeting the requirements of category O (uncontrolled environment), as defined in Annex A of IEC 61753-1:2007.

Annex B of this standard provides information concerning the function of the 1 490 / 1 550 nm downstream and 1 310 nm upstream WWDM.

#### **2 Normative references** *STANDARD PREVIEW* *(standards.iteh.ai)*

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.

<https://standards.iteh.ai/catalog/standards/sist/e9548465-f3a-4624-a5c8->

IEC 60793-2-50, *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/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 – Optical power handling and damage threshold characterization*

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*