

SLOVENSKI STANDARD

SIST EN 61753-051-3:2013

01-oktober-2013

Nadomešča:

SIST EN 61753-051-3:2004

Optični spojni elementi in pasivne komponente - Tehnični standard - 051-3. del:
Vtični optični slabilni člen enorodnega vlakna za kategorijo U - Nenadzorovano okolje

Fibre optic interconnecting devices and passive components - Performance standard - Part 051-3: Single mode fibre plug style optical attenuator for category U - Uncontrolled environment

iTeh STANDARD PREVIEW

(standards.iteh.ai)

Lichtwellenleiter – Verbindungselemente und passive Bauteile - Betriebsverhalten - Teil 051-3: Lichtwellenleiter-Dämpfungsglieder mit Einmoden-Pigtail in Steckverbinderbauform für die Kategorie U - Unkontrollierte Umgebung

<https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-46a7-8578-1f7006a7772c/sist-en-61753-051-3-2013>

Dispositifs d'interconnexion et composants passifs à fibres optiques - Norme de performance - Partie 051-3: Affaiblisseur optique de type fiche pour fibres unimodales pour la catégorie U - Environnement non contrôlé

Ta slovenski standard je istoveten z: EN 61753-051-3:2013

ICS:

33.180.20

Povezovalne naprave za optična vlakna

Fibre optic interconnecting devices

SIST EN 61753-051-3:2013

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61753-051-3:2013

<https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-1f7006a7772c/sist-en-61753-051-3-2013>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61753-051-3

May 2013

ICS 33.180.20

Supersedes EN 61753-051-3:2002

English version

**Fibre optic interconnecting devices and passive components -
Performance standard -
Part 051-3: Single-mode fibre, plug style fixed attenuators for category U -
Uncontrolled environment
(IEC 61753-051-3:2013)**

Dispositifs d'interconnexion et composants
passifs à fibres optiques -
Norme de performance -
Partie 051-3: Affaiblisseurs fixes de type
fiche pour fibres unimodales
en catégorie U -
Environnement non-contrôlé
(CEI 61753-051-3:2013)

Lichtwellenleiter – Verbindungselemente
und passive Bauteile – Betriebsverhalten -
Teil 051-3: Lichtwellenleiter-
Dämpfungsglieder mit Einmoden-Pigtail in
Steckverbinderbauform
für die Kategorie U -
Unkontrollierte Umgebung
(IEC 61753-051-3:2013)

STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61753-051-3:2013

<https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578->

This European Standard was approved by CENELEC on 2013-03-13. 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.

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/3543/FDIS, future edition 2 of IEC 61753-051-3, 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 61753-051-3:2013.

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) 2013-12-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-03-13

This document supersedes EN 61753-051-3:2002.

The specific technical changes from EN 61753-051-3:2002 are to reconsider test details and requirement and the constitution of the standard.

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.

SIST EN 61753-051-3:2013

[https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-](https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-1f7006-7773c/sist-en-61753-051-3-2013)

[1f7006-7773c/sist-en-61753-051-3-2013](https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-1f7006-7773c/sist-en-61753-051-3-2013)

Endorsement notice

The text of the International Standard IEC 61753-051-3:2013 was approved by CENELEC as a European Standard without any modification.

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 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 61300-2-2	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-2: Tests - Mating durability	EN 61300-2-2	-
IEC 61300-2-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-6: Tests - Tensile strength of coupling mechanism	EN 61300-2-6	-
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 61300-2-12	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-12: Tests - Impact	EN 61300-2-12	-
IEC 61300-2-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-14: Tests - High optical power	EN 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	-
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 61300-2-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	EN 61300-2-22	-
IEC 61300-2-26	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-26: Tests - Salt mist	EN 61300-2-26	-
IEC 61300-2-27	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-27: Tests - Dust - Laminar flow	EN 61300-2-27	-
IEC 61300-2-46	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-46: Tests - Damp heat cyclic	EN 61300-2-46	-
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 61300-3-3	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-3: Examinations and measurements - Active monitoring of changes in attenuation and return loss	EN 61300-3-3	-
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 61300-3-6	-	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 61300-3-28	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements - Transient loss	EN 61300-3-28	-
IEC 61754	Series	Fibre optic connector interfaces	EN 61754	Series
IEC 61755	Series	Fibre optic connector optical interfaces	EN 61755	Series
IEC/TR 62627-02	2010	Fibre optic interconnecting devices and passive components - Part 02: Report of round robin test results on SC plug style fixed attenuators	-	-



IEC 61753-051-3

Edition 2.0 2013-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Fibre optic interconnecting devices and passive components – Performance standard –

Part 051-3: Single-mode fibre, plug style fixed attenuators for category U – Uncontrolled environment

[SIST EN 61753-051-3:2013](https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-157065757220/iec-61753-051-3-2013)

<https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-157065757220/iec-61753-051-3-2013>

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

Partie 051-3: Affaiblisseurs fixes de type fiche pour fibres unimodales en catégorie U – Environnement non-contrôlé

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

P

ICS 33.180.20

ISBN 978-2-83220-629-4

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Test	6
4 Test report	7
5 Performance requirements	7
5.1 Sample size, sequencing and grouping	7
5.2 Dimensions	7
5.3 Test details and requirements	7
Annex A (normative) Reference connector and adaptor	14
Annex B (normative) Sample size and product sourcing requirements	15
Table 1 – Test details and requirements (1 of 7)	7
Table A.1 – Requirements for reference connector and adaptor	14
Table B.1 – Sample size and product sourcing requirements	15

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 61753-051-3:2013

<https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-1f7006a7772c/sist-en-61753-051-3-2013>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –

Part 051-3: Single-mode fibre, plug style fixed attenuators for category U – Uncontrolled 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.

International Standard IEC 61753-051-3 has been prepared by subcommittee 86B, Fibre optic interconnecting devices and passive components of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2001 and constitutes a technical revision. The specific technical changes from the previous edition are to reconsider test details and requirement and the constitution of the standard.

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

FDIS	Report on voting
86B/3543/FDIS	86B/3580/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 the 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 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.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61753-051-3:2013

<https://standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-1f7006a7772c/sist-en-61753-051-3-2013>

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –

Part 051-3: Single-mode fibre, plug style fixed attenuators for category U – Uncontrolled environment

1 Scope

This part of IEC 61753 contains the minimum initial test and measurement requirements and severities which a fibre optic attenuator satisfies in order to be categorized as meeting the requirements of single-mode fibre, plug-style fixed attenuator devices used in uncontrolled environments. Optical performances specified in this standard relate to plug-style configurations optical attenuators only.

2 Normative references

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.

IEC 60793-2-50, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*¹
standards.iteh.ai/catalog/standards/sist/6620ce98-a51b-4ba7-8578-1f7006a7772c/sist-en-61753-051-3-2013

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

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

IEC 61300-2-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-6: Tensile strength of coupling mechanism*

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

IEC 61300-2-12, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-12: Tests – Impact*

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*

¹ A fourth edition is due to be published shortly.