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**Izvedbeni standard povezovalnih naprav in pasivnih komponent optičnih vlaken – 021-2. del: Konektorji optičnih vlaken, ki se zaključujejo na enorodnihvlaknih kategorije C; kontrolirano okolje (IEC 61753-021-2:2002)\***

Fibre optic interconnecting devices and passive component performance standard - Part 021-2: Fibre optic connectors terminated on single-mode fibre for category C - Controlled environment (IEC 61753-021-2:2002)

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**Fibre optic interconnecting devices and passive  
component performance standard  
Part 021-2: Fibre optic connectors terminated  
on single-mode fibre for category C -  
Controlled environment  
(IEC 61753-021-2:2002)**

Norme de qualité de fonctionnement  
des dispositifs d'interconnexion  
et composants passifs à fibres optiques  
Partie 021-2: Connecteurs à fibres  
optiques raccordés à une fibre  
monomode pour la catégorie C -  
Environnement contrôlé  
(CEI 61753-021-2:2002)

Lichtwellenleiter -  
Verbindungselemente  
und passive Bauteile -  
Betriebsverhalten  
Teil 021-2: Lichtwellenleiter-  
Steckverbinder für Einmodenfasern  
für die Kategorie C -  
Geregelte Umgebung  
(IEC 61753-021-2:2002)

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719847d9983d/sist-en-61753-021-2-2004

This European Standard was approved by CENELEC on 2002-09-01. 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.

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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 86B/1669/FDIS, future edition 1 of IEC 61753-021-2, 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 61753-021-2 on 2002-09-01.

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) 2003-06-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2005-09-01

Annexes designated "normative" are part of the body of the standard.  
In this standard annexes A, B and ZA are normative.  
Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61753-021-2:2002 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60793-1-1	- <sup>1)</sup>	Optical fibres Part 1-1: Generic specification - General	-	-
IEC 61300-2-1	- <sup>1)</sup>	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures Part 2-1: Tests - Vibration (sinusoidal)	EN 61300-2-1	1997 <sup>2)</sup>
IEC 61300-2-2	- <sup>1)</sup>	Part 2-2: Tests - Mating durability	EN 61300-2-2	1997 <sup>2)</sup>
IEC 61300-2-4	- <sup>1)</sup>	Part 2-4: Tests - Fibre/cable retention	EN 61300-2-4	1997 <sup>2)</sup>
IEC 61300-2-6	- <sup>1)</sup>	Part 2-6: Tests - Tensile strength of coupling mechanism	EN 61300-2-6	1997 <sup>2)</sup>
IEC 61300-2-12	- <sup>1)</sup>	Part 2-12: Tests - Impact	EN 61300-2-12	1997 <sup>2)</sup>
IEC 61300-2-17	- <sup>1)</sup>	Part 2-17: Tests - Cold	EN 61300-2-17	1997 <sup>2)</sup>
IEC 61300-2-18	- <sup>1)</sup>	Part 2-18: Tests - Dry heat - High temperature endurance	EN 61300-2-18	1997 <sup>2)</sup>
IEC 61300-2-19	- <sup>1)</sup>	Part 2-19: Tests - Damp heat (steady state)	EN 61300-2-19	1997 <sup>2)</sup>
IEC 61300-2-22	- <sup>1)</sup>	Part 2-22: Tests - Change of temperature	EN 61300-2-22	1997 <sup>2)</sup>
IEC 61300-2-42	- <sup>1)</sup>	Part 2-42: Tests - Static side load for connectors	EN 61300-2-42	1998 <sup>2)</sup>
IEC 61300-3-3	- <sup>1)</sup>	Part 3-3: Examinations and measurements - Monitoring change in attenuation and in return loss (multiple paths)	EN 61300-3-3	1997 <sup>2)</sup>

<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61300-3-4	- <sup>1)</sup>	Part 3-4: Examinations and measurements - Attenuation	EN 61300-3-4	2001 <sup>2)</sup>
IEC 61300-3-6	- <sup>1)</sup>	Part 3-6: Examinations and measurements - Return loss	EN 61300-3-6	1997 <sup>2)</sup>
IEC 61300-3-34	- <sup>1)</sup>	Part 3-34: Examinations and measurements - Attenuation of random mated connectors	EN 61300-3-34	2002 <sup>2)</sup>

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IEC

61753-021-2

Première édition  
First edition  
2002-07

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**Norme de qualité de fonctionnement  
des dispositifs d'interconnexion et  
composants passifs à fibres optiques –**

**Partie 021-2:**

**Connecteurs à fibres optiques raccordés  
à une fibre monomode pour la catégorie C –  
Environnement contrôlé**

[SIST EN 61753-021-2:2004](https://standards.iteh.ai/catalog/standards/sist/ca545e52-1092-4e66-b208-712770583052/en-61753-021-2-2004)

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**Fibre optic interconnecting devices and  
passive component performance standard –**

**Part 021-2:**

**Fibre optic connectors terminated on single-mode  
fibre for category C – Controlled environment**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES  
AND PASSIVE COMPONENT PERFORMANCE STANDARD –****Part 021-2: Fibre optic connectors terminated on single-mode fibre  
for category C – Controlled environment**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organisation for standardisation comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote International cooperation on all questions concerning standardisation in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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 organisations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organisation for Standardisation (ISO) in accordance with the conditions determined by agreement between the two organisations.
- 2) The formal decisions or agreements of the 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 National Committees.
- 3) The documents produced have the form of recommendations for International use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote International unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.  
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- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61753-021-2 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/1669/FDIS	86B/1682/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 3.

Annexes A and B form an integral part of this standard.

The committee has decided that the contents of this publication will remain unchanged until 2006. 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 COMPONENT PERFORMANCE STANDARD –

### Part 021-2: Fibre optic connectors terminated on single-mode fibre for category C – Controlled environment

## 1 Scope

This part of IEC 61753 contains the minimum requirements and severities which a single-mode connector/cable assembly must satisfy in order to be categorized as meeting the IEC standard category C (controlled environment), as defined in annex A of IEC 61753-1-11.

It contains optional grades of optical performance for the attenuation random-mate and return-loss tests.

## 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 60793-1-1, *Optical fibres – Part 1-1: Generic specification – General*

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

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*

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

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)*

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<sup>1</sup> IEC 61753-1-1 *Fibre optic interconnecting devices and passive components performance standard – Part 1-1: General and guidance – Interconnecting devices (connectors)*