

STN	Optické vlákna Časť 2-50: Špecifikácie výrobku Rámcová špecifikácia jednovidových vláken kategórie B	STN EN IEC 60793-2-50
		35 9213

Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola označená vo Vestníku ÚNMS SR č. 06/19

Obsahuje: EN IEC 60793-2-50:2019, IEC 60793-2-50:2018

Oznámením tejto normy sa od 18.01.2022 ruší
STN EN 60793-2-50 (35 9213) zo septembra 2016

128915

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60793-2-50

March 2019

ICS 33.180.10

Supersedes EN 60793-2-50:2016

English Version

**Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres
(IEC 60793-2-50:2018)**

Fibres optiques - Partie 2-50: Spécifications de produits -
Spécification intermédiaire pour les fibres unimodales de
classe B
(IEC 60793-2-50:2018)

Lichtwellenleiter - Teil 2-50: Produktspezifikationen -
Rahmenspezifikation für Einmodenfasern der Kategorie B
(IEC 60793-2-50:2018)

This European Standard was approved by CENELEC on 2019-01-18. 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 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60793-2-50:2019 (E)**European foreword**

The text of document 86A/1884/FDIS, future edition 6 of IEC 60793-2-50, prepared by SC 86A "Fibres and cables" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60793-2-50:2019.

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) 2019-10-18
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-01-18

This document supersedes EN 60793-2-50:2016.

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

Endorsement notice

The text of the International Standard IEC 60793-2-50:2018 was approved by CENELEC as a European Standard without any modification.

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

IEC 60793-1-1 NOTE Harmonized as EN 60793-1-1

IEC 60794-3 NOTE Harmonized as EN 60794-3

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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.

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

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-1	series	Optical fibres	EN 60793-1	series
IEC 60793-1-20	-	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry	EN 60793-1-20	-
IEC 60793-1-21	-	Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry	EN 60793-1-21	-
IEC 60793-1-22	-	Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement	EN 60793-1-22	-
IEC 60793-1-30	-	Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test	EN 60793-1-30	-
IEC 60793-1-31	-	Optical fibres - Part 1-31: Measurement methods and test procedures - Tensile strength	EN 60793-1-31	-
IEC 60793-1-32	-	Optical fibres - Part 1-32: Measurement methods and test procedures - Coating strippability	EN IEC 60793-1-32	-
IEC 60793-1-33	-	Optical fibres - Part 1-33: Measurement methods and test procedures - Stress corrosion susceptibility	EN 60793-1-33	-
IEC 60793-1-34	-	Optical fibres - Part 1-34: Measurement methods and test procedures - Fibre curl	EN 60793-1-34	-
IEC 60793-1-40	-	Optical fibres - Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	-
IEC 60793-1-42	-	Optical fibres - Part 1-42: Measurement methods and test procedures - Chromatic dispersion	EN 60793-1-42	-

EN IEC 60793-2-50:2019 (E)

IEC 60793-1-44 -	Optical fibres - Part 1-44: Measurement methods and test procedures - Cut-off wavelength	EN 60793-1-44	-
IEC 60793-1-45 -	Optical fibres - Part 1-45: Measurement methods and test procedures - Mode field diameter	EN IEC 60793-1-45	-
IEC 60793-1-46 -	Optical fibres - Part 1-46: Measurement methods and test procedures - Monitoring of changes in optical transmittance	EN 60793-1-46	-
IEC 60793-1-47 -	Optical fibres - Part 1-47: Measurement methods and test procedures - Macrobending loss	EN IEC 60793-1-47	-
IEC 60793-1-48 -	Optical fibres - Part 1-48: Measurement methods and test procedures - Polarization mode Dispersion	EN 60793-1-48	-
IEC 60793-1-50 -	Optical fibres - Part 1-50: Measurement methods and test procedures - Damp heat (steady state) tests	EN 60793-1-50	-
IEC 60793-1-51 -	Optical fibres - Part 1-51: Measurement methods and test procedures - Dry heat (steady state) tests	EN 60793-1-51	-
IEC 60793-1-52 -	Optical fibres - Part 1-52: Measurement methods and test procedures - Change of temperature tests	EN 60793-1-52	-
IEC 60793-1-53 -	Optical fibres - Part 1-53: Measurement methods and test procedures - Water immersion tests	EN 60793-1-53	-
IEC 60793-2 -	Optical fibres - Part 2: Product specifications - General	EN 60793-2	-
IEC 60794-2 -	Optical fibre cables - Part 2: Indoor cables - Sectional specification	EN 60794-2	-



IEC 60793-2-50

Edition 6.0 2018-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Optical fibres –
Part 2-50: Product specifications – Sectional specification for class B single-mode fibres**

**Fibres optiques –
Partie 2-50: Spécifications de produits – Spécification intermédiaire pour les fibres unimodales de classe B**





THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2018 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
 3, rue de Varembé
 CH-1211 Geneva 20
 Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 21 000 terms and definitions in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Catalogue IEC - webstore.iec.ch/catalogue

Application autonome pour consulter tous les renseignements bibliographiques sur les Normes internationales, Spécifications techniques, Rapports techniques et autres documents de l'IEC. Disponible pour PC, Mac OS, tablettes Android et iPad.

Recherche de publications IEC - webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et aussi une fois par mois par email.

Electropedia - www.electropedia.org

Le premier dictionnaire en ligne de termes électroniques et électriques. Il contient 21 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans 16 langues additionnelles. Egalelement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary

67 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.



IEC 60793-2-50

Edition 6.0 2018-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Optical fibres –
Part 2-50: Product specifications – Sectional specification for class B single-mode fibres**

**Fibres optiques –
Partie 2-50: Spécifications de produits – Spécification intermédiaire pour les fibres unimodales de classe B**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 33.180.10

ISBN 978-2-8322-6280-1

**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	5
1 Scope	7
2 Normative references	8
3 Terms and definitions	9
4 Abbreviated terms and symbols	10
5 Specifications	10
5.1 General	10
5.2 Dimensional requirements	10
5.3 Mechanical requirements	11
5.4 Transmission requirements	12
5.5 Environmental requirements	13
5.5.1 General	13
5.5.2 Optical environmental requirements – Attenuation	14
5.5.3 Mechanical environmental requirements	14
Annex A (normative) Family specification for category B-652 Dispersion unshifted single-mode fibres	16
A.1 General	16
A.2 Dimensional requirements	16
A.3 Mechanical requirements	17
A.4 Transmission requirements	17
A.5 Hydrogen ageing for sub-category B-652.D	19
A.6 Environmental requirements	19
Annex B (normative) Family specification for category B-653 Dispersion shifted single-mode fibres	20
B.1 General	20
B.2 Dimensional requirements	20
B.3 Transmission requirements	21
B.3.1 General	21
B.3.2 Chromatic dispersion coefficient requirement for sub-category B-653.A fibres	21
B.3.3 Chromatic dispersion coefficient requirement for sub-category B-653.B fibres	22
B.4 Environmental requirements	22
Annex C (normative) Family specification for category B-654 cut-off shifted single-mode fibres	23
C.1 General	23
C.2 Dimensional requirements	23
C.3 Mechanical requirements	23
C.4 Chromatic dispersion parameters for B-654.E fibres	25
C.5 Environmental requirements	25
Annex D (normative) Family specification for category B-655 non-zero dispersion shifted single-mode fibres	26
D.1 General	26
D.2 Dimensional requirements	26
D.3 Mechanical requirements	26
D.4 Transmission requirements	27
D.4.1 General	27

D.4.2	Chromatic dispersion coefficient limits for sub-category B-655.C fibres.....	27
D.4.3	Chromatic dispersion coefficient limits for sub-category B-655.D fibres.....	28
D.4.4	Chromatic dispersion coefficient limits for sub-category B-655.E fibres.....	28
D.5	Environmental requirements	28
Annex E (normative)	Family specification for category B-656 Wideband non-zero dispersion shifted single-mode fibres	29
E.1	General.....	29
E.2	Dimensional requirements.....	29
E.3	Mechanical requirements	29
E.4	Transmission requirements	30
E.4.1	General	30
E.4.2	Chromatic dispersion coefficient for category B-656 fibres	30
E.5	Environmental requirements	31
Annex F (normative)	Family specification for category B-657 Bending loss insensitive single-mode fibres	32
F.1	General.....	32
F.2	Dimensional requirements.....	32
F.3	Mechanical requirements	33
F.4	Transmission requirements	33
F.5	Environmental requirements	35
Annex G (informative)	System design information for category B-655 non-zero dispersion shifted single-mode fibres	36
G.1	General.....	36
G.2	One standard deviation limits for sub-category B-655.D fibres	36
G.3	One standard deviation limits for sub-category B-655.E fibres.....	37
Bibliography.....		39
Figure G.1 – Sub-category B-655.D chromatic dispersion coefficient limits		37
Figure G.2 – Sub-category B-655.E chromatic dispersion coefficient limits		38
Table 1 – Map of IEC designation to ITU-T Recommendations and IEC 60793-2-50:2015 designation.....		8
Table 2 – Dimensional attributes and measurement methods		11
Table 3 – Dimensional requirements common to all category B fibres		11
Table 4 – Mechanical attributes and test methods.....		11
Table 5 – Mechanical requirements common to all class B fibres		12
Table 6 – Transmission attributes and measurement methods		12
Table 7 – Transmission, requirements common to all class B fibres		13
Table 8 – Additional transmission attributes required in the family specifications		13
Table 9 – Environmental exposure tests		13
Table 10 – Attributes measured in environmental exposure tests		13
Table 11 – Change in attenuation for environmental tests		14
Table 12 – Coating strip force for environmental tests.....		14
Table 13 – Tensile strength for environmental tests		15
Table 14 – Stress corrosion susceptibility for environmental tests		15
Table A.1 – Dimensional requirements specific to category B-652.B fibres.....		16
Table A.2 – Dimensional requirements specific to category B-652.D fibres		17

Table A.3 – Mechanical requirements specific to category B-652 fibres	17
Table A.4 – Transmission requirements specific to sub-category B-652.B fibres	18
Table A.5 – Transmission requirements specific to sub-category B-652.D Fibres	18
Table A.6 – Chromatic dispersion properties for sub-category B-652.D fibres	19
Table B.1 – Dimensional requirements specific to category B-653 fibres	20
Table B.2 – Mechanical requirements specific to category B-653 fibres	21
Table B.3 – Transmission requirements specific to category B-653 fibres	21
Table C.1 – Dimensional requirements specific to category B-654 fibres.....	23
Table C.2 – Mechanical requirements specific to category B-654 fibres	24
Table C.3 – Transmission requirements specific to category B-654 fibres	24
Table D.1 – Dimensional requirements specific to category B-655 fibres.....	26
Table D.2 – Mechanical requirements specific to category B-655 fibres	27
Table D.3 – Transmission requirements specific to category B-655 fibres	27
Table E.1 – Dimensional requirements specific to category B-656 fibres.....	29
Table E.2 – Mechanical requirements specific to category B-656 fibres	30
Table E.3 – Transmission requirements specific to category B-656 fibres	30
Table F.1 – Dimensional requirements specific to category B-657 fibres	33
Table F.2 – Mechanical requirements specific to category B-657 fibres.....	33
Table F.3 – Transmission requirements specific to category B-657 fibres	34
Table G.1 – Examples for $\lambda_{\min} = 1\ 530\ \text{nm}$ and $\lambda_{\max} = 1\ 565\ \text{nm}$	36

INTERNATIONAL ELECTROTECHNICAL COMMISSION**OPTICAL FIBRES –****Part 2-50: Product specifications –
Sectional specification for class B single-mode fibres****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 60793-2-50 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

The sixth edition cancels and replaces the fifth edition published in 2015. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- a) Introduction of a revised naming convention which better matches with those found in ITU-T Recommendations G.652, G.653, G.654, G.655, G.656, and G.657. These changes are outlined in the scope of this document along with a cross reference table for the new names. Annexes have been rearranged to improve clarity based on the new naming;
- b) Further details on the requirements for 200 micron coated single-mode fibre;
- c) Harmonization with the following ITU-T Recommendations published in November 2016: G.652, G.654, G.657 including revised chromatic dispersion specifications, new categories and new application spaces for these fibre categories;

d) Descriptions of fibre types have been added to the titles of Annexes A to F.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
86A/1884/FDIS	86A/1898/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60793 series, published under the general title *Optical fibres*, 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
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

OPTICAL FIBRES –

Part 2-50: Product specifications – Sectional specification for class B single-mode fibres

1 Scope

This part of IEC 60793 is applicable to optical fibre categories B-652, B-653, B-654, B-655, B-656 and B-657. A map illustrating the connection of IEC designations to ITU-T designations is shown in Table 1. These fibres are used or can be incorporated in information transmission equipment and optical fibre cables.

Three types of requirements apply to these fibres:

- general requirements, as defined in IEC 60793-2;
- specific requirements common to the class B single-mode fibres covered in this document and which are given in Clause 5;
- particular requirements applicable to individual fibre categories or specific applications, which are defined in Annexes A to F.

For some fibre categories (shown in the relevant family specifications), there are sub-categories that are distinguished on the basis of difference in transmission attribute specifications. The designations for these sub-categories are documented in the individual family specifications.

Table 1 shows a map from the IEC designations to the ITU-T recommendations. The table also provides the normative annex in this document that contains the detailed specification as well as the name used to describe this fibre type in IEC 60793-2-50:2015. The ITU-T recommendations as well as the IEC categories/sub-categories within each recommendation are given. In some cases, as for Recommendation G.652, a given IEC designation maps to multiple categories in the ITU-T because the ITU-T categories are distinguished by cabled fibre attribute (PMD_Q) performance which are not distinguished in the IEC fibre specifications.

**Table 1 – Map of IEC designation to ITU-T Recommendations and
IEC 60793-2-50:2015 designation**

Annex	Category	Sub Category	Description	IEC 60793-2-50:2015	ITU-T Rec
	B-652		Dispersion unshifted fibre		G.652
A		B-652.B		B1.1	G.652.B
A		B-652.D		B1.3	G.652.D
	B-653		Dispersion shifted fibre		G.653
B		B-653.A		B2_a	G.653.A
B		B-653.B		B2_b	G.653.B
	B-654		Cut-off shifted fibre		G.654
C		B-654.A		B1.2_a	G.654.A
C		B-654.B		B1.2_b	G.654.B
C		B-654.C		B1.2_c	G.654.C
C		B-654.D		N/A	G.654.D
C		B-654.E		N/A	G.654.E
C	B-655		Non-zero dispersion shifted fibre	B4	G.655
D		B-655.C		B4_c	G.655.C
D		B-655.D		B4_d	G.655.D
D		B-655.E		B4_e	G.655.E
E	B-656		Wideband non-zero dispersion shifted fibre	B5	G.656
F	B-657		Bending loss insensitive fibre	B6	G.657
F		B-657.A1		B6_a1	G.657.A1
F		B-657.A2		B6_a2	G.657.A2
F		B-657.B2		B6_b2	G.657.B2
F		B-657.B3		B6_b3	G.657.B3

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 60793-1 (all parts), *Optical fibres*

IEC 60793-1-20, *Optical fibres – Part 1-20: Measurement methods and test procedures – Fibre geometry*

IEC 60793-1-21, *Optical fibres – Part 1-21: Measurement methods and test procedures – Coating geometry*

IEC 60793-1-22, *Optical fibres – Part 1-22: Measurement methods and test procedures – Length measurement*

IEC 60793-1-30, *Optical fibres – Part 1-30: Measurement methods and test procedures – Fibre proof test*

IEC 60793-1-31, *Optical fibres – Part 1-31: Measurement methods and test procedures – Tensile strength*

IEC 60793-1-32, *Optical fibres – Part 1-32: Measurement methods and test procedures – Coating strippability*

IEC 60793-1-33, *Optical fibres – Part 1-33: Measurement methods and test procedures – Stress corrosion susceptibility*

IEC 60793-1-34, *Optical fibres – Part 1-34: Measurement methods and test procedures – Fibre curl*

IEC 60793-1-40, *Optical fibres – Part 1-40: Measurement methods and test procedures – Attenuation*

IEC 60793-1-42, *Optical fibres – Part 1-42: Measurement methods and test procedures – Chromatic dispersion*

IEC 60793-1-44, *Optical fibres – Part 1-44: Measurement methods and test procedures – Cut-off wavelength*

IEC 60793-1-45, *Optical fibres – Part 1-45: Measurement methods and test procedures – Mode field diameter*

IEC 60793-1-46, *Optical fibres – Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance*

IEC 60793-1-47, *Optical fibres – Part 1-47: Measurement methods and test procedures – Macrobending loss*

IEC 60793-1-48, *Optical fibres – Part 1-48: Measurement methods and test procedures – Polarization mode dispersion*

IEC 60793-1-50, *Optical fibres – Part 1-50: Measurement methods and test procedures – Damp heat (steady state) tests*

IEC 60793-1-51, *Optical fibres – Part 1-51: Measurement methods and test procedures – Dry heat (steady state) tests*

IEC 60793-1-52, *Optical fibres – Part 1-52: Measurement methods and test procedures – Change of temperature tests*

IEC 60793-1-53, *Optical fibres – Part 1-53: Measurement methods and test procedures – Water immersion tests*

IEC 60793-2, *Optical fibres – Part 2: Product specifications – General*

IEC 60794-2, *Optical fibre cables – Part 2: Indoor cables – Sectional specification*