

---

**Optični kabli - 2-21. del: Notranji optični kabli - Podrobna specifikacija za razdelilne večvlakenske optične kable za okablenje prostorov - Dopolnilo A1 (IEC 60794-2-21:2019/A1:2020)**

Optical fibre cables - Part 2-21: Indoor cables - Detailed specification for multi-fibre optical distribution cables for use in premises cabling (IEC 60794-2-21:2019/A1:2020)

Lichtwellenleiterkabel - Teil 2-21: LWL-Innenkabel - Bauartspezifikation für Mehrfaserverteilerkabel für anwendungsneutrale Standortverkabelung (IEC 60794-2-21:2019/A1:2020)

**(standards.iteh.ai)**

Amendement 1 - Câbles à fibres optiques - Partie 2-21: Câbles intérieurs - Spécification particulière pour les câbles optiques multifibres de distribution utilisés dans le câblage de locaux (IEC 60794-2-21:2019/A1:2020)

**Ta slovenski standard je istoveten z: EN IEC 60794-2-21:2019/A1:2021**

---

**ICS:**

33.180.10 (Optična) vlakna in kabli Fibres and cables

**SIST EN IEC 60794-2-21:2019/A1:2021 en**

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

[SIST EN IEC 60794-2-21:2019/A1:2021](https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021)

<https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021>

EUROPEAN STANDARD

EN IEC 60794-2-21:2019/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2021

ICS 33.180.10

English Version

Optical fibre cables - Part 2-21: Indoor cables - Detailed  
specification for multi-fibre optical distribution cables for use in  
premises cabling  
(IEC 60794-2-21:2019/A1:2020)

Câbles à fibres optiques - Partie 2-21: Câbles intérieurs -  
Spécification particulière pour les câbles optiques  
multifibres de distribution utilisés dans le câblage de locaux  
(IEC 60794-2-21:2019/A1:2020)

Lichtwellenleiterkabel - Teil 2-21: LWL-Innenkabel -  
Bauartspezifikation für Mehrfaserverteilerkabel für  
anwendungsneutrale Standortverkabelung  
(IEC 60794-2-21:2019/A1:2020)

This amendment A1 modifies the European Standard EN IEC 60794-2-21:2019; it was approved by CENELEC on 2020-12-23. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, 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 60794-2-21:2019/A1:2021 (E)****European foreword**

The text of document 86A/2012/CDV, future IEC 60794-2-21/A1, 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 60794-2-21:2019/A1:2021.

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) 2021-09-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-12-23

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 60794-2-21:2019/A1:2020 was approved by CENELEC as a European Standard without any modification.

**(standards.iteh.ai)**

[SIST EN IEC 60794-2-21:2019/A1:2021](https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021)

<https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021>



IEC 60794-2-21

Edition 3.0 2020-11

# INTERNATIONAL STANDARD

AMENDMENT 1

**Optical fibre cables –**  
**Part 2-21: Indoor cables – Detailed specification for multi-fibre optical  
distribution cables for use in premises cabling**

**STANDARD PREVIEW**  
(standards.iteh.ai)  
[SIST EN IEC 60794-2-21:2019/A1:2021](https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021)  
<https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021>

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

ICS 33.180.10

ISBN 978-2-8322-9071-2

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## OPTICAL FIBRE CABLES –

**Part 2-21: Indoor cables –  
Detailed specification for multi-fibre optical distribution cables  
for use in premises cabling****AMENDMENT 1**

## 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 document may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

This amendment has been prepared by subcommittee SC 86A: Fibres and cables, of IEC technical committee TC 86: Fibre optics.

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

Draft	Report on voting
86A/2012/CDV	86A/2055/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

IEC 60794-2-21:2019/AMD1:2020

– 3 –

© IEC 2020

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications/](http://www.iec.ch/standardsdev/publications/).

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](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.

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

[SIST EN IEC 60794-2-21:2019/A1:2021](https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021)

<https://standards.iteh.ai/catalog/standards/sist/73d4ad1b-3b56-4458-8f3d-257161a1f8ef/sist-en-iec-60794-2-21-2019-a1-2021>

## INTRODUCTION to Amendment

This amendment adds an important update considered during the development of the base publication, IEC 60794-2-21:2019.

As regards minimum multimode fibre bandwidth requirements (Table 3), this amendment provides new guidance as concerns effective modal bandwidth in the 840 nm to 953 nm wavelength range which was not considered mature enough during the development of IEC 60794-2-21:2019.

It is expected that the content of this amendment will be incorporated into the future edition 4 of IEC 60794-2-21.

**Table 3 – Minimum multimode fibre bandwidth (MHz·km)**

Replace the existing table with the following new table:

Fibre	Nominal core diameter (µm)	Overfilled launch bandwidth at 850 nm	Overfilled launch bandwidth at 953 nm	Overfilled launch bandwidth at 1 300 nm	Effective modal bandwidth at 850 nm	Effective modal bandwidth at 953 nm	Performance codes
IEC 60793-2-10, A1-OM3	50	1 500	Not specified	500	2 000	Not specified	OM3
IEC 60793-2-10, A1-OM4	50	3 500	Not specified	500	4 700	Not specified	OM4
IEC 60793-2-10, A1-OM5	50	3 500	1 850	500	4 700	2 470	OM5

NOTE Effective modal bandwidth guidance is provided at all wavelengths in the 840 nm to 953 nm range in IEC 60793-2-10. For OM3, the guidance is 1 033 MHz·km at 953 nm. For OM4, the guidance is 1 459 MHz·km at 953 nm.