

## SLOVENSKI STANDARD SIST EN IEC 61280-4-1:2019/A1:2022

01-april-2022

Postopki preskušanja optičnega komunikacijskega podsistema - 4-1. del: Vgrajene žične oblike - Meritev mnogorodovnega slabljenja - Dopolnilo A1 (IEC 61280-4-1:2019/AMD1:2021)

Fibre-optic communication subsystem test procedures - Part 4-1: Installed cabling plant - Multimode attenuation measurement (IEC 61280-4-1:2019/AMD1:2021)

## iTeh STANDARD

Prüfverfahren für Lichtwellenleiter-Kommunikationsuntersysteme - Teil 4-1: Lichtwellenleiter-Kabelanlagen - Mehrmoden-Dämpfungsmessungen (IEC 61280-4-1:2019/AMD1:2021)

(standards.iteh.ai)

Procédures d'essai des sous-systèmes de télécommunication fibroniques - Partie 4-1: Installation câblée - Mesure de l'affaiblissement en multimodal (IEC 61280-4-1:2019/AMD1:2021) https://standards.iteh.ai/catalog/standards/sist/c53a4e86-5b25-4d79-9c43-9f284d84b775/sist-en-iec-61280-4-1-

Ta slovenski standard je istoveten z: EN IEC 61280-4-1:2019/A1:2022

ICS:

33.180.01 Sistemi z optičnimi vlakni na Fibre optic systems in splošno general

SIST EN IEC 61280-4-1:2019/A1:2022 en

SIST EN IEC 61280-4-1:2019/A1:2022

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

SIST EN IEC 61280-4-1:2019/A1:2022 https://standards.iteh.ai/catalog/standards/sist/c53a4e86-5b25-4d79-9c43-9f284d84b775/sist-en-iec-61280-4-1-2019-a1-2022

EUROPEAN STANDARD NORME EUROPÉENNE FUROPÄISCHE NORM EN IEC 61280-4-1:2019/A1

February 2022

ICS 33.180.01

### **English Version**

Fibre-optic communication subsystem test procedures - Part 4-1: Installed cabling plant - Multimode attenuation measurement (IEC 61280-4-1:2019/AMD1:2021)

Procédures d'essai des sous-systèmes de télécommunication fibroniques - Partie 4-1: Installation câblée - Mesure de l'affaiblissement en multimodal (IEC 61280-4-1:2019/AMD1:2021) Prüfverfahren für Lichtwellenleiter-Kommunikationsuntersysteme - Teil 4-1: Lichtwellenleiter-Kabelanlagen - Mehrmoden-Dämpfungsmessungen (IEC 61280-4-1:2019/AMD1:2021)

This amendment A1 modifies the European Standard EN IEC 61280-4-1:2019; it was approved by CENELEC on 2022-01-13. 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, Cceland, 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.

2019-a1-2022



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 61280-4-1:2019/A1:2022 (E)

### **European foreword**

The text of document 86C/1720/CDV, future IEC 61280-4-1/AMD1, prepared by SC 86C "Fibre optic systems and active devices" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61280-4-1:2019/A1:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-10-13 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2025-01-13 document have to be withdrawn

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

## iTeh STANDARD

The text of the International Standard IEC 61280-4-1:2019/AMD1:2021 was approved by CENELEC as a European Standard without any modification.

(standards.iteh.ai)

SIST EN IEC 61280-4-1:2019/A1:2022 https://standards.iteh.ai/catalog/standards/sist/c53a4e86-5b25-4d79-9c43-9f284d84b775/sist-en-iec-61280-4-1-2019-a1-2022



IEC 61280-4-1

Edition 3.0 2021-12

# INTERNATIONAL **STANDARD**

# **NORME** INTERNATIONALE

**AMENDMENT 1 AMENDEMENT 1** 

### iTeh STANDARD

Fibre-optic communication subsystem test procedures -Part 4-1: Installed cabling plant - Multimode attenuation measurement

(standards.iteh.ai)
Procédures d'essai des sous-systèmes de télécommunication fibroniques – Partie 4-1: Installation câblée - Mesure de l'affaiblissement en multimodal

> https://standards.iteh.ai/catalog/standards/sist/c53a4e86-5b25-4d79-9c43-9f284d84b775/sist-en-iec-61280-4-1-2019-a1-2022

INTERNATIONAL **ELECTROTECHNICAL** COMMISSION

COMMISSION **ELECTROTECHNIQUE** INTERNATIONAL F

ICS 33.180.01 ISBN 978-2-8322-1058-2

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. – 2 –

IEC 61280-4-1:2019/AMD1:2021 © IEC 2021

#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE-OPTIC COMMUNICATION SUBSYSTEM TEST PROCEDURES -

## Part 4-1: Installed cabling plant – Multimode attenuation measurement

### **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
- 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 775/sist-en-iec-61280-4-1-
- 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.

Amendment 1 to IEC 61280-4-1:2019 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

Draft	Report on voting
86C/1720/CDV	86C/1740/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 61280-4-1:2019/AMD1:2021 - 3 - © IEC 2021

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 <a href="https://www.iec.ch/members\_experts/refdocs">www.iec.ch/members\_experts/refdocs</a>. The main document types developed by IEC are described in greater detail at <a href="https://www.iec.ch/standardsdev/publications/">www.iec.ch/standardsdev/publications/</a>.

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 in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- · amended.

#### 6.3 Launch cord

Replace, in the first bulleted list item of the fifth existing paragraph, the word "attenuation" with "loss".

Replace, in the last bulleted list item of the fifth existing paragraph, the words "bend-insensitive characteristics" with "enhanced macrobend loss performance levels".

Replace the penultimate existing paragraph with the following new paragraph:

When undertaking LSPM testing of A1-OMxa or A1-OMxb optical fibres, the launch cord can contain optical fibres of sub-division A1-OMxa or A1-OMxb (BIMMF). 4-1-2019-a1-2022

Replace the second sentence of the last existing paragraph with the following new sentence:

Some equipment requires the launch cord to be matched to the light source to provide the required encircled flux launch.

### 6.4 Receive or tail cord

Add, before the first existing paragraph, the following new paragraph:

Except for the OTDR method, the receive cord shall be 2 m to 10 m in length. See Annex E for the length of the OTDR receive cord.

Replace, in the first existing paragraph, the words "launch cord" with "receive cord".

Replace, in the fourth paragraph, the last dashed list item with the following new item:

 when undertaking LSPM testing of A1-OMxa or A1-OMxb optical fibres, the receive cord can contain optical fibres of sub-division A1-OMxa or A1-OMxb (BIMMF).