Irish Standard
I.S. EN IEC 62614-1:2020

Fibre optics - Multimode launch conditions - Part 1: Launch condition requirements for measuring multimode attenuation

I.S. EN IEC 62614-1:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN IEC 62614-1:2020 is the adopted Irish version of the European Document EN IEC 62614-1:2020, Fibre optics - Multimode launch conditions - Part 1: Launch condition requirements for measuring multimode attenuation

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62614-1

August 2020

ICS 33.180.01

Supersedes EN 62614:2010 and all of its amendments and corrigenda (if any)

English Version

Fibre optics - Multimode launch conditions - Part 1: Launch condition requirements for measuring multimode attenuation (IEC 62614-1:2020)

Fibres optiques - Exigences des conditions d'injection pour la mesure de l'affaiblissement en multimodal (IEC 62614-1:2020)

Lichtwellenleiter – Mehrmoden Anregungsbedingungen - Teil 1: Anforderungen an die Anregungsbedingungen für Mehrmoden-Dämpfungsmessungen (IEC 62614-1:2020)

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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

European foreword

The text of document 86C/1625/CDV, future edition 1 of IEC 62614-1, 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 62614-1:2020.

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)	2021-04-15
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2023-07-15

This document supersedes EN 62614:2010 and all of its amendments and corrigenda (if any).

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 62614-1:2020 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 60793-2-10:2019	NOTE	Harmonized as EN IEC 60793-2-10:2019 (not modified)
IEC 61280-4-1:2019	NOTE	Harmonized as EN IEC 61280-4-1:2019 (not modified)
IEC 61745	NOTE	Harmonized as EN 61745
IEC 61755-6-2	NOTE	Harmonized as EN IEC 61755-6-2

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.

Publication	Year	Title	EN/HD	Year
IEC 61280-1-4	-	Fibre optic communication subsystem test procedures - Part 1-4: General communication subsystems - Light source encircled flux measurement method	EN 61280-1-4	-

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IEC 62614-1

Edition 1.0 2020-06

INTERNATIONAL STANDARD

colour inside

Fibre optics – Multimode launch conditions –
Part 1: Launch condition requirements for measuring multimode attenuation

IEC 62614-1:2020-06(en)

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INTERNATIONAL STANDARD

Fibre optics – Multimode launch conditions – Part 1: Launch condition requirements for measuring multimode attenuation

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIBRE OPTICS – MULTIMODE LAUNCH CONDITIONS –

Part 1: Launch condition requirements for measuring multimode attenuation

FOREWORD

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International Standard IEC 62614-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This first edition cancels and replaces IEC 62614, published in 2010, and constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 62614:

a) increase of the value of the uncertainty attenuation variation coefficient Y for 50 µm core fibre at 1 300 nm, due to launch conditions, to twice the previous value;
b) changes to 3.4, 5.6, including Table 5, and some references to remain consistent with IEC 61280-4-1:2019;
c) changes to multimode fibre references to be consistent with IEC 60793-2-10:2019.

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

CDV	Report on voting
86C/1625/CDV	86C/1654A/RVC

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 62614 series, published under the general title *Fibre optics – Multimode launch conditions*, 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.

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FIBRE OPTICS – MULTIMODE LAUNCH CONDITIONS –

Part 1: Launch condition requirements for measuring multimode attenuation

1 Scope

This part of IEC 62614 describes the launch condition requirements used for measuring multimode attenuation in passive components and in installed cable plants.

In this document, the fibre types that are addressed include category A1-OMx, where x = 2, 3, 4 and 5 (50 µm/125 µm), and A1-OM1 (62,5 µm/125 µm) multimode fibres, as specified in IEC 60793-2-10. The nominal test wavelengths detailed are 850 nm and 1 300 nm. This document can be suitable for multimode attenuation measurements for other multimode categories and/or other wavelengths, but the source condition for other categories and wavelengths are not defined here.

The purpose of these requirements is as follows:

- to ensure consistency of field measurements when different types of test equipment are used;
- to ensure consistency of factory measurements when different types of test equipment are used;
- to ensure consistency of field measurements when compared with factory measurements.

This document describes launch condition requirements for optical attenuation using sources with a controlled encircled flux (EF).

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 61280-1-4, *Fibre optic communication subsystem test procedures – Part 1-4: General communication subsystems – Light source encircled flux measurement method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
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