



NSAI
Standards

Irish Standard
I.S. EN IEC 61300-3-53:2021

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-53: Examinations and measurements - Encircled angular flux (EAF) measurement method based on two-dimensional far field data from multimode waveguide (including fibre)

I.S. EN IEC 61300-3-53:2021

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National Foreword

I.S. EN IEC 61300-3-53:2021 is the adopted Irish version of the European Document EN IEC 61300-3-53:2021, Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-53: Examinations and measurements - Encircled angular flux (EAF) measurement method based on two-dimensional far field data from multimode waveguide (including fibre)

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EUROPEAN STANDARD

EN IEC 61300-3-53

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2021

ICS 33.180.20

Supersedes EN 61300-3-53:2015 and all of its
amendments and corrigenda (if any)

English Version

**Fibre optic interconnecting devices and passive components -
Basic test and measurement procedures - Part 3-53:
Examinations and measurements - Encircled angular flux (EAF)
measurement method based on two-dimensional far field data
from multimode waveguide (including fibre)
(IEC 61300-3-53:2020)**

Dispositifs d'interconnexion et composants passifs
fibroniques - Procédures fondamentales d'essais et de
mesures - Partie 3-53: Examens et mesures - Méthode de
mesure du flux angulaire inscrit (EAF) fondée sur les
données bidimensionnelles de champ lointain d'un guide
d'ondes multimodal (fibre incluse)
(IEC 61300-3-53:2020)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Grundlegende Prüf- und Messverfahren - Teil 3-
53: Untersuchungen und Messungen - Verfahren zur
Messung des winkelabhängigen begrenzten Lichtstroms
(EAF) basierend auf den zweidimensionalen Fernfelddaten
eines Mehrmoden-Wellenleiters (einschließlich -Faser)
(IEC 61300-3-53:2020)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

EN IEC 61300-3-53:2021 (E)

European foreword

The text of document 86B/4343/FDIS, future edition 2 of IEC 61300-3-53, 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 approved by CENELEC as EN IEC 61300-3-53:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2021-10-19 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-01-19 document have to be withdrawn

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61745 NOTE Harmonized as EN 61745

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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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 60793-2-10	-	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN IEC 60793-2-10	-
IEC 60793-2-30	-	Optical fibres - Part 2-30: Product specifications - Sectional specification for category A3 multimode fibres	EN 60793-2-30	-
IEC 60793-2-40	-	Optical fibres - Part 2-40: Product specifications - Sectional specification for category A4 multimode fibres	EN 60793-2-40	-
IEC 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 61300-1	2016	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	EN 61300-1	2016

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IEC 61300-3-53

Edition 2.0 2020-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Fibre optic interconnecting devices and passive components – Basic test and measurement procedures

Part 3-53: Examinations and measurements – Encircled angular flux (EAF) measurement method based on two-dimensional far field data from multimode waveguide (including fibre)

Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –

Partie 3-53: Examens et mesures – Méthode de mesure du flux angulaire inscrit (EAF) fondée sur les données bidimensionnelles de champ lointain d'un guide d'ondes multimodal (fibre incluse)



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IEC 61300-3-53

Edition 2.0 2020-12

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES

Part 3-53: Examinations and measurements – Encircled angular flux (EAF) measurement method based on two-dimensional far field data from multimode waveguide (including fibre)

FOREWORD

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International Standard IEC 61300-3-53 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition in 2015. This edition constitutes a technical revision.

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

- a) the scope of the applicable wave guides, and graded index multimode optical wave guide and fibre have been included;
- b) the structure of 5.3 has been rearranged;
- c) Annex C and Annex D have been added.

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

FDIS	Report on voting
86B/4343/FDIS	86B/4373/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 61300, published under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*, 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

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES

Part 3-53: Examinations and measurements – Encircled angular flux (EAF) measurement method based on two-dimensional far field data from multimode waveguide (including fibre)

1 Scope

This part of IEC 61300 defines the encircled angular flux measurement of multimode waveguide light sources, in which most of the transverse modes are excited. The term "waveguide" is understood to include both channel waveguides and optical fibres but not slab waveguides.

The applicable fibre types are the followings:

- A1 specified in IEC 60793-2-10;
- A3 specified in IEC 60793-2-30;
- A4 specified in IEC 60793-2-40.

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 60793-2-10, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*

IEC 60793-2-30, *Optical fibres – Part 2-30: Product specifications – Sectional specification for category A3 multimode fibres*

IEC 60793-2-40, *Optical fibres – Part 2-40: Product specifications – Sectional specification for category A4 multimode fibres*

IEC 60825-1, *Safety of laser products – Part 1: Equipment classification and requirements*

IEC 61300-1:2016, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

3 Terms and definitions

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

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