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Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-45: Examinations and measurements - Attenuation of random mated multi-fibre connectors

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/23

Obsahuje: EN IEC 61300-3-45:2023, IEC 61300-3-45:2023

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NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN IEC 61300-3-45**

August 2023

ICS 33.180.20

Supersedes EN 61300-3-45:2011

English Version

**Fibre optic interconnecting devices and passive components -  
Basic test and measurement procedures - Part 3-45:  
Examinations and measurements - Attenuation of random mated  
multi-fibre connectors  
(IEC 61300-3-45:2023)**

Dispositifs d'interconnexion et composants passifs  
fibroniques - Procédures fondamentales d'essais et de  
mesures - Partie 3-45: Examens et mesures -  
Affaiblissement dû à l'accouplement sans choix préalable  
de connecteurs multifibres  
(IEC 61300-3-45:2023)

Lichtwellenleiter - Verbindungselemente und passive  
Bauteile - Grundlegende Prüf- und Messverfahren - Teil 3-  
45: Untersuchungen und Messungen - Dämpfung von  
zufällig gesteckten Mehrfasersteckverbindern  
(IEC 61300-3-45:2023)

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Europäisches Komitee für Elektrotechnische Normung

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

**EN IEC 61300-3-45:2023 (E)****European foreword**

The text of document 86B/4757/FDIS, future edition 2 of IEC 61300-3-45, 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 61300-3-45:2023.

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- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2024-05-01
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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 61280-1-3 NOTE Approved as EN IEC 61280-1-3

IEC 61300-3-34 NOTE Approved as EN 61300-3-34

## 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.cencenelec.eu](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61300-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	EN IEC 61300-1	-
IEC 61300-3-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements - Visual examination	EN 61300-3-1	-
IEC 61300-3-35	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-35: Examinations and measurements - Visual inspection of fibre optic connectors and fibre-stub transceivers	EN IEC 61300-3-35	-
IEC 61754	series	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces	EN 61754	series
IEC 63267	series	Fibre optic interconnecting devices and passive components - Connector optical interfaces for enhanced macro bend loss multimode fibres	EN IEC 63267	series



# IEC 61300-3-45

Edition 2.0 2023-06

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 3-45: Examinations and measurements – Attenuation of random mated multi-fibre connectors**

**Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –  
Partie 3-45: Examens et mesures – Affaiblissement dû à l'accouplement sans choix préalable de connecteurs multifibres**



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IEC 61300-3-45

Edition 2.0 2023-06

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Partie 3-45: Examens et mesures – Affaiblissement dû à l'accouplement sans choix préalable de connecteurs multifibres**

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## CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references .....	5
3 Terms and definitions .....	5
4 General description .....	6
4.1 Test methods .....	6
4.2 Precautions.....	7
5 Apparatus.....	7
5.1 Launch conditions and light source (LS).....	7
5.2 Detector (D).....	8
6 Procedure.....	9
6.1 Method 1.....	9
6.2 Method 2.....	11
7 Calculation and analysis .....	15
8 Details to be specified and reported.....	15
Annex A (normative) Requirements for launch fibre and launch plug for multimode measurement.....	16
Bibliography.....	17
Figure 1 – Reference power measurement system – Method 1 .....	9
Figure 2 – Attenuation measurement system – Method 1 .....	9
Figure 3 – Test matrix and labelling for measuring Method 1 (2-fibre connector).....	10
Figure 4 – Test matrix and labelling for measuring Method 1 (4-fibre connector).....	11
Figure 5 – Test matrix and labelling for measuring Method 1 (8-, 10-, 12- and > 12-fibre connectors).....	11
Figure 6 – Reference power measurement system (1) – Method 2 .....	12
Figure 7 – Attenuation measurement system (1) – Method 2 .....	12
Figure 8 – Reference power measurement system (2) – Method 2 .....	13
Figure 9 – Attenuation measurement system (2) – Method 2.....	13
Figure 10 – Test matrix and labelling for measuring Method 2 (2-fibre connector).....	14
Figure 11 – Test matrix and labelling for measuring Method 2 (4-fibre connector).....	14
Figure 12 – Test matrix and labelling for measuring Method 2 (8-, 10-, 12- and > 12-fibre connectors).....	15
Figure A.1 – Attenuation measurement system .....	16
Table 1 – Sample size for Method 1 .....	6
Table 2 – Sample size for Method 2.....	7
Table 3 – Preferred source conditions.....	8
Table A.1 – Requirements for launch fibre and launch plug.....	16



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –****Part 3-45: Examinations and measurements – Attenuation of random mated multi-fibre connectors**

## FOREWORD

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IEC 61300-3-45 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

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

- a) addition of sample size for > 12-fibre connector measurement;
- b) inclusion of guidance for multimode measurement.

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

Draft	Report on voting
86B/4757/FDIS	86B/4774/RVD

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 International Standard is English.

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/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 61300 series, 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 [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
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- amended.

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

### **Part 3-45: Examinations and measurements – Attenuation of random mated multi-fibre connectors**

#### **1 Scope**

The purpose of this part of IEC 61300 is to describe the procedure required to measure the statistical distribution and mean attenuation for random mated optical connectors with physical contact (PC) and angled physical contact (APC) polished multi-fibre rectangular ferrules as defined in the IEC 61754 series. This measurement method is applicable to cable assemblies.

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

IEC 61300-3-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1: Examinations and measurements – Visual examination*

IEC 61300-3-35, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-35: Examinations and measurements – Visual inspection of fibre optic connectors and fibre-stub transceivers*

IEC 61754 (all parts), *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*

IEC 63267 (all parts), *Fibre optic interconnecting devices and passive components – Connector optical interfaces for enhanced macro bend loss multimode fibres*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**