

SLOVENSKI STANDARD SIST EN 61300-3-4:2002

01-september-2002

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-4: Examinations and measurements - Attenuation (IEC 61300-3-4:2001)

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-4: Examinations and measurements - Attenuation

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Meßverfahren -- Teil 3-4: Untersuchungen und Messungen - Dämpfung (standards.iten.ai)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Méthodes fondamentales d'essais et de mesures - Partie 3-4: Examens et mesures - Affaiblissement b8bbfa676dc3/sist-en-61300-3-4-2002

Ta slovenski standard je istoveten z: EN 61300-3-4:2001

ICS:

33.180.20 Ú[ç^:[çæ]}^Á;æ]¦æç^Áæ

 $[](\tilde{a})(\tilde{a})(\tilde{a})(\tilde{a})(\tilde{a})(\tilde{a})$

Fibre optic interconnecting

devices

SIST EN 61300-3-4:2002

en

SIST EN 61300-3-4:2002

iTeh STANDARD PREVIEW (standards.iteh.ai)

EUROPEAN STANDARD

EN 61300-3-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2001

ICS 33.180.20

Supersedes EN 61300-3-4:1998

English version

Fibre optic interconnecting devices and passive components Basic test and measurement procedures Part 3-4: Examinations and measurements Attenuation

(IEC 61300-3-4:2001)

Dispositifs d'interconnexion et composants passifs à fibres optiques -Méthodes fondamentales d'essais et de mesures

Lichtwellenleiter - Verbindungselemente und passive Bauteile -

Grundlegende Prüf- und Meßverfahren Teil 3-4: Untersuchungen und Messungen -

Partie 3-4: Examens et mesures Dämpfung (IEC 61300-3-4:2001)

(CEI 61300-3-4:2001)

(standards.iteh.ai)

This European Standard was approved by CENELEC on 2001-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 Central Secretariat or to any CENELEC member.

This European Standard 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

- 2 -

Foreword

The text of document 86B/1418/FDIS, future edition 2 of IEC 61300-3-4, 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 was approved by CENELEC as EN 61300-3-4 on 2001-07-01.

This European Standard supersedes EN 61300-3-4:1998.

The following dates were fixed:

 latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement

(dop) 2002-04-01

 latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2004-07-01

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

iTeh STENdorsement notice VIEW

The text of the International Standard IEC 61300-3-4:2001 was approved by CENELEC as a European Standard without any modification.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60793-1	Series	Optical fibres Part 1: Generic specification	-	-
IEC 61300-1	1995	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures Part 1: General and guidance REVIII	EN 61300-1	1997
IEC 61300-3-1	1995	Part 3-1 Examinations and eh. ai) measurements - Visual examination	EN 61300-3-1	1997

SIST EN 61300-3-4:2002

https://standards.iteh.ai/catalog/standards/sist/0ea75532-5dd1-418d-b499-b8bbfa676dc3/sist-en-61300-3-4-2002

SIST EN 61300-3-4:2002

iTeh STANDARD PREVIEW (standards.iteh.ai)

NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI IEC 61300-3-4

> Deuxième édition Second edition 2001-01

Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures –

Partie 3-4:

Examens et mesures - Affaiblissement

(standards.iteh.ai)

Fibre optic interconnecting devices
and passive components —
https://standard.neh.arcatalog/standard.sist/dea/5552-5dd1-418d-b499Basic test/and measurement procedures —

Part 3-4:

Examinations and measurements – Attenuation

© IEC 2001 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission 3, rue de Varembé Geneva, Switzerland Telefax: +41 22 919 0300 e-mail: inmail@iec.ch IEC web site http://www.iec.ch



Commission Electrotechnique Internationale International Electrotechnical Commission Международная Электротехническая Комиссия CODE PRIX PRICE CODE



Pour prix, voir catalogue en vigueur For price, see current catalogue

CONTENTS

FOI	REWO)RD		Page 7			
Clau							
1		0		11			
	•						
2	_	Normative references					
3			cription				
	3.1		itions				
4	• • •						
	4.1		n conditions and source (S)				
	4.2 4.3		meter (D)				
	4.3	•	rary joint (TJ)				
	4.4		nce plugs (RP)				
	4.6		nce adaptors (Ar)				
	4.7		ilter (mf)				
	4.8		estrictive launch apparatus				
5							
	5.1	Pre-co	nditioning.h.S.T.A.N.D.A.R.D.P.R.E.V.IE.W	19			
	5.2	Visual	inspection	19			
	5.3	DUT co	inspectiononfigurations and test methods s.iteh.ai)	21			
	5.4	Attenu	ation measurements with a power meter	23			
		5.4.1	ation measurements with a power meter	23			
		5.4.2	Substitution	23			
		5.4.3	Insertion method (A)	25			
		5.4.4	Insertion method (B)				
		5.4.5	Insertion method (C)				
	5.5		ation measurements with an OTDR				
		5.5.1	Measurement description				
		5.5.2	Measurement theory				
		5.5.3	Measurement method				
6	Dotoi		Evaluation procedurespecified				
O	Detai	is to be	specified	33			
Fia	ure 1 -	– Cutba	ck method – Type 1, type 2, and type 3 DUTs	23			
			itution method – Type 4 DUT				
-			ion method (A) – Type 2 DUT				
-			ion method (B) – Type 5 and type 6 DUT				
•			ion Method (C) – Type 4, type 5, type 7 and type 8 DUT				
_	Figure 6 – Method 1 – One launch section						
_			od 2 – Two launch sections				
Figure 8 – Non-reflective event							
Fig	Figure 9 – Reflective event						

Table 1 – Preferred source and launch conditions	13
Table 2 – Preferred power-meter parameters	15
Table 3 – Mandrel diameter sizes	17
Table 4 – Ultra-restrictive launch conditions	19
Table 5 – DUT configurations	21

iTeh STANDARD PREVIEW (standards.iteh.ai)

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 3-4: Examinations and measurements – Attenuation

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latterps://standards.iteh.ai/catalog/standards/sist/0ea75532-5dd1-418d-b499-
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61300-3-4 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, published in 1998, and constitutes a technical revision.

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

FDIS	Report on voting	
86B/1418/FDIS	86B/1468/RVD	

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

61300-3-4 © IEC:2001

-9-

IEC 61300 consists of the following parts, under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures:*

- Part 1: General and guidance
- Part 2: Tests
- Part 3: Examinations and measurements.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

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

iTeh STANDARD PREVIEW (standards.iteh.ai)