SLOVENSKI STANDARD

SIST EN 61290-3-1:2004

september 2004

Optični ojačevalci – Preskusne metode – 3-1. del: Parametri hrupa - Metoda analizatorja optičnega spektra (IEC 61290-3-1:2003)*

Optical amplifiers - Test methods - Part 3-1: Noise figure parameters - Optical spectrum analyzer method (IEC 61290-3-1:2003)

ICS 33.180.30

Referenčna številka
SIST EN 61290-3-1:2004(en)

EUROPEAN STANDARD **EN 61290-3-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM November 2003

ICS 33.180.30

English version

Optical amplifiers – Test methods Part 3-1: Noise figure parameters – Optical spectrum analyzer method

(IEC 61290-3-1:2003)

Amplificateurs optiques – Méthodes d'essai
Partie 3-1: Paramètres du facteur de bruit - Méthode d'analyseur du spectre optique
(CEI 61290-3-1:2003)

Lichtwellenleiter-Verstärker - Prüfverfahren
Teil 3-1: Rauschzahlparameter - Prüfverfahren mit optischem Spektralanalysator
(IEC 61290-3-1:2003)

This European Standard was approved by CENELEC on 2003-11-01. 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, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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

Ref. No. EN 61290-3-1:2003 E

Foreword

The text of document 86C/543/FDIS, future edition 1 of IEC 61290-3-1, 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 was approved by CENELEC as EN 61290-3-1 on 2003-11-01.

This standard is to be read in conjunction with EN 61291-1:1998.

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) 2004-08-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-11-01

The International Electrotechnical Commission (IEC) and CENELEC draw attention to the fact that it is claimed that compliance with this standard may involve the use of a patent concerning the polarization nulling technique given in subclause 6.2.2.

The IEC and CENELEC take no position concerning the evidence, validity and scope of these patent rights.

The holders of these patent rights have assured the IEC that they are willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statements of the holders of these patent rights are registered with the IEC. Information may be obtained from:

Lucent
600 Mountain Avenue
Murray Hill, NJ 07974
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Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights other than those identified above. IEC and CENELEC shall not be held responsible for identifying any or all such patent rights.

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

Endorsement notice

The text of the International Standard IEC 61290-3-1:2003 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 60793-1-1	NOTE	Harmonized as EN 60793-1-1:2003 (not modified).
IEC 60825-1	NOTE	Harmonized as EN 60825-1:1994 (not modified).
IEC 60825-2	NOTE	Harmonized as EN 60825-2:2000 (not modified).
IEC 60874-1	NOTE	Harmonized as EN 60874-1:1999 (not modified).
IEC 61290-3	NOTE	Harmonized as EN 61290-3:2000 (not modified).

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.

Publication	Year	Title	EN/HD	Year
IEC 61290-1-1	- [1)]	Optical fibre amplifiers - Basic specification Part 1-1: Test methods for gain parameters - Optical spectrum analyzer	EN 61290-1-1	1998 [2)]
IEC 61291-1	- [1)]	Optical fibre amplifiers Part 1: Generic specification	EN 61291-1	1998 [2)]
IEC/TR 61292-3	- [1)]	Optical amplifiers Part 3: Classification, characteristics and applications	-	-

1) Undated reference.

2) Valid edition at date of issue.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
61290-3-1

Première édition
First edition
2003-08

Amplificateurs optiques – Méthodes d'essai –

Partie 3-1: Paramètres du facteur de bruit – Méthode d'analyseur du spectre optique

Optical amplifiers – Test methods –

Part 3-1: Noise figure parameters – Optical spectrum analyzer method

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL AMPLIFIERS – TEST METHODS

Part 3-1: Noise figure parameters – Optical spectrum analyzer method

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, 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.

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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.

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this International Standard may involve the use of a patent concerning the polarization nulling technique given in subclause 6.2.2.

The IEC takes no position concerning the evidence, validity and scope of these patent rights.

The holders of these patent rights have assured the IEC that they are willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statements of the holders of these patent rights are registered with the IEC. Information may be obtained from:

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Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights other than those identified above. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61290-3-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This standard cancels and replaces IEC/PAS 61290-3-1 published in 2002. This first edition constitues a technical revision.

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

FDIS	Report on voting
86C/543/FDIS	86C/563/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 2.

This standard is to be read in conjunction with IEC 61291-1: *Optical fibres amplifiers – Part 1: Generic specification.*

IEC 61290-3 consists of the following parts, under the general title *Optical amplifiers – Basic specification – Part 3: Test methods for noise figure parameters:*

Part 3-1: Optical spectrum analyzer

Part 3-2: Electrical spectrum analyzer method

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

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

INTRODUCTION

This part of IEC 61290 is devoted to the subject of optical amplifiers. The technology of optical amplifiers is still rapidly evolving, hence amendments and new additions to this standard can be expected.

Each abbreviation introduced in this standard is generally explained in the text the first time it appears. However, for an easier understanding of the whole text, a list of all abbreviations used in this standard is given in Clause 3.