



# SLOVENSKI STANDARD SIST EN 61290-3-2:2008

01-december-2008

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SIST EN 61290-3-2:2004

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Optical amplifiers - Test methods - Part 3-2: Noise figure parameters - Electrical spectrum analyzer method (IEC 61290-3-2:2008)

Lichtwellenleiter-Verstärker - Prüfverfahren - Teil 3-2: Rauschzahlparameter - Verfahren mit elektrischem Spektralanalysator (IEC 61290-3-2:2008)

Amplificateurs optiques - Méthodes d'essais - Partie 3-2: Paramètres du facteur de bruit - Méthode de l'analyseur spectral électrique (IEC 61290-3-2:2008)

Ta slovenski standard je istoveten z: EN 61290-3-2:2008

**ICS:**

33.180.30 U] cã } ã [ ðe ^çæ) ã ã Optic amplifiers

SIST EN 61290-3-2:2008 en,fr

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61290-3-2**

October 2008

ICS 33.180.30

Supersedes EN 61290-3-2:2003

English version

**Optical amplifiers -  
Test methods -  
Part 3-2: Noise figure parameters -  
Electrical spectrum analyzer method  
(IEC 61290-3-2:2008)**

Amplificateurs optiques -  
Méthodes d'essais -  
Partie 3-2: Paramètres du facteur de bruit -  
Méthode de l'analyseur spectral électrique  
(CEI 61290-3-2:2008)

Lichtwellenleiter-Verstärker -  
Prüfverfahren -  
Teil 3-2: Rauschzahlparameter -  
Verfahren mit elektrischem  
Spektralanalysator  
(IEC 61290-3-2:2008)

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This European Standard was approved by CENELEC on 2008-10-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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**

## Foreword

The text of document 86C/784/CDV, future edition 2 of IEC 61290-3-2, 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 61290-3-2 on 2008-10-01.

This European Standard supersedes EN 61290-3-2:2003.

EN 61290-3-2:2008 includes updates to specifically address all types of optical amplifiers, not just optical fibre amplifiers.

This standard is to be used in conjunction with EN 61290-3 and EN 61291-1.

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) 2009-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-10-01

Annex ZA has been added by CENELEC.

## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 61290-3-2:2008 was approved by CENELEC as a European Standard without any modification.

[SIST EN 61290-3-2:2008](#)

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60793	NOTE	Harmonized in EN 60793 series (modified).
IEC 60825-1	NOTE	Harmonized as EN 60825-1:2007 (not modified).
IEC 60825-2	NOTE	Harmonized as EN 60825-2:2004 (not modified).
IEC 60874-1	NOTE	Harmonized as EN 60874-1:2007 (not modified).

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 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>	<u>EN/HD</u>	<u>Year</u>
IEC 60728-6	- <sup>1)</sup>	Cable networks for television signals, sound signals and interactive services - Part 6: Optical equipment	EN 60728-6	2003 <sup>2)</sup>
IEC 61290-3	- <sup>1)</sup>	Optical amplifiers - Test methods - Part 3: Noise figure parameters	EN 61290-3	2008 <sup>2)</sup>
IEC 61291-1	- <sup>1)</sup>	Optical amplifiers - Part 1: Generic specification	EN 61291-1	2006 <sup>2)</sup>

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

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IEC 61290-3-2

Edition 2.0 2008-07

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

Optical amplifiers – Test methods –  
Part 3-2: Noise figure parameters – Electrical spectrum analyzer method

Amplificateurs optiques – Méthodes d'essais –  
Partie 3-2: Paramètres du facteur de bruit – Méthode de l'analyseur spectral  
électrique

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**OPTICAL AMPLIFIERS –  
TEST METHODS –**
**Part 3-2: Noise figure parameters –  
Electrical 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, Publicly Available Specifications (PAS) 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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International Standard IEC 61290-3-2 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2003 and constitutes a technical revision. It includes updates to specifically address all types of optical amplifiers – not just optical fibre amplifiers.

This standard should be read in conjunction with IEC 61290-3 and IEC 61291-1.

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

CDV	Report on voting
86C/784/CDV	86C/828/RVC

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.

A list of all parts of IEC 61290 series, published under the general title *Optical amplifiers – Test methods*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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## 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 symbol and 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 symbols and abbreviations used in this standard is given in Clause 3.

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