



**SLOVENSKI STANDARD**  
**SIST EN 61290-2-1:1999**

**01-maj-1999**

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**Optical fibre amplifiers - Basic specification - Part 2-1: Test methods for optical power parameters - Optical spectrum analyzer (IEC 61290-2-1:1998)**

Optical fibre amplifiers - Basic specification -- Part 2-1: Test methods for optical power parameters - Optical spectrum analyzer

Lichtwellenleiter-Verstärker - Grundspezifikation -- Teil 2-1: Prüfverfahren für optische Leistungsparameter - Optischer Spektralanalysator

Amplificateurs à fibres optiques - Spécification de base -- Partie 2-1: Méthodes d'essai pour les paramètres de puissance optique - Analyseur de spectre optique

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**Ta slovenski standard je istoveten z: EN 61290-2-1:1998**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61290-2-1**

August 1998

ICS 33.180.99

English version

**Optical fibre amplifiers - Basic specification**  
**Part 2-1: Test methods for optical power parameters**  
**Optical spectrum analyzer**  
**(IEC 61290-2-1:1998)**

Amplificateurs à fibres optiques  
Spécification de base  
Partie 2-1: Méthodes d'essai pour les  
paramètres de puissance optique  
Analyseur de spectre optique  
(CEI 61290-2-1:1998)

Lichtwellenleiter-Verstärker  
Grundspezifikation  
Teil 2-1: Prüfverfahren für  
optische Leistungsparameter  
Optischer Spektralanalysator  
(IEC 61290-2-1:1998)

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**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

**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>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-1-4	1995	Optical fibres Part 1: Generic specification Section 4: Measuring methods for transmission and optical characteristics	-	-
IEC 61291-1	1998	Optical fibre amplifiers Part 1: Generic specification	EN 61291-1	1998

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1998-05

**Amplificateurs à fibres optiques –  
Spécification de base –**

**Partie 2-1:  
Méthodes d'essai pour les paramètres  
de puissance optique –  
Analyseur de spectre optique**

**Optical fibre amplifiers –  
Basic specification –**

**Part 2-1:  
Test methods for optical power parameters –  
Optical spectrum analyzer**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**OPTICAL FIBRE AMPLIFIERS –  
BASIC SPECIFICATION –**

**Part 2-1: Test methods for optical power parameters –  
Optical spectrum analyzer**

## 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.
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- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
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- 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 61290-2-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

It shall be read in conjunction with IEC 61291-1.

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

FDIS	Report on voting
86C/178/FDIS	86C/202/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.

Annexes A and B are for information only.

## INTRODUCTION

As far as can be determined, this is the first International Standard on optical fibre amplifiers. The technology of optical fibre amplifiers is quite new and still emerging, hence amendments and new editions to this standard can be expected.

Each abbreviation introduced is explained in the text at least the first time it appears. However, for an easier understanding of the whole text, a list of all abbreviations used is given in annex A.

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**OPTICAL FIBRE AMPLIFIERS –  
BASIC SPECIFICATION –  
Part 2-1: Test methods for optical power parameters –  
Optical spectrum analyzer**

## 1 Scope and object

This part of IEC 61290 applies to optical fibre amplifiers (OFAs) using active fibres, containing rare-earth dopants, presently commercially available.

The object of this standard is to establish uniform requirements for accurate and reliable measurements, by means of the optical spectrum analyzer test method, of the following OFA parameters, as defined in clause 3 of IEC 61291-1:

- a) nominal output signal power;
- b) large-signal output stability;
- c) saturation output power;
- d) maximum input signal power;
- e) maximum output signal power;
- f) input power range;
- g) output power range;
- h) maximum total output power.

NOTE – All numerical values followed by (‡) are currently under consideration.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61290. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 61290 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60793-1-4:1995, *Optical fibres – Part 1: Generic specification – Section 4: Measuring methods for transmission and optical characteristics*.

IEC 61291-1: *Optical fibre amplifiers – Part 1: Generic specification* <sup>1)</sup>

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<sup>1)</sup> To be published.