SLOVENSKI STANDARD

SIST EN 61290-5-2:2005

februar 2005

Optični ojačevalniki – Preskusne metode – 5-2. del: Parametri odbojnosti – Metoda z električnim spektralnim analizatorjem (IEC 61290-5-2:2003)

Optical amplifiers - Test methods - Part 5-2: Reflectance parameters - Electrical spectrum analyser method (IEC 61290-5-2:2003)

ICS 33.180.30

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EN 61290-5-2

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English version

Optical amplifiers – Test methods Part 5-2: Reflectance parameters – Electrical spectrum analyser method (IEC 61290-5-2:2003)

Amplificateurs optiques –
Méthodes d'essai
Partie 5-2: Paramètres du facteur de réflexion –
Méthode de l'analyseur de spectre électrique
(CEI 61290-5-2:2003)

Prüfverfahren für Lichtwellenleiter-Verstärker
Teil 5-2: Reflexionsparameter –
Verfahren mit einem elektrischen Spektralanalysator
(IEC 61290-5-2:2003)

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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

Ref. No. EN 61290-5-2:2004 E

Foreword

The text of document 86C/547/FDIS, future edition 1 of IEC 61290-5-2, 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 61290-5-2 on 2004-05-01.

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) 2005-02-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-05-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 61290-5-2:2003 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	NOTE	Harmonized in EN 60793-1 series (partly modified).
IEC 60825-1	NOTE	Harmonized as EN 60825-1:1994 (not modified).
IEC 60825-2	NOTE	Harmonized as EN 60825-1:2000 (not modified).
IEC 60874-1	NOTE	Harmonized as EN 60874-1:1999 (not modified).

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

Publication	Year	Title	EN/HD	Year
IEC 61291-1	1998	Optical fibre amplifiers Part 1: Generic specification	EN 61291-1	1998

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Amplificateurs optiques – Méthodes d'essai –

Partie 5-2: Paramètres du facteur de réflexion – Méthode de l'analyseur de spectre électrique

Optical amplifiers – Test methods –

Part 5-2: Reflectance parameters – Electrical spectrum analyser method

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL AMPLIFIERS – TEST METHODS – Part 5-2: Reflectance parameters – Electrical spectrum analyser 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 61290-5-2 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86C/547/FDIS	86C/571/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.

IEC 61290-5 consists of the following parts under the new general title *Optical amplifiers – Test methods – Reflectance parameters*:

Part 5-1: Optical spectrum analyser

Part 5-2: Electrical spectrum analyser method

Part 5-3: Reflectance tolerance using electrical spectrum analyser

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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.

OPTICAL AMPLIFIERS – TEST METHODS –

Part 5-2: Reflectance parameters – Electrical spectrum analyser method

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 part of IEC 61290 is to establish uniform requirements for accurate and reliable measurements, by means of the electrical spectrum analyser test method, of the following OFA parameters, as defined in IEC 61291-1:

a) input reflectance;

b) output reflectance.

NOTE 1 All numerical values followed by (‡) are currently under study.

NOTE 2 The measurement uncertainty should be better than ±1 dB.

2 Normative references

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.

IEC 61291-1, *Optical fibre amplifiers – Part 1: Generic specification*

3 Abbreviated terms

For the purposes of this document, the following abbreviations apply:

ASE Amplified spontaneous emission
DFB Distributed feedback (laser diode)
EA Electro-absorption
ESA Electrical spectrum analyser
MZ Mach-Zehnder
OFA Optical fibre amplifier
OSA Optical spectrum analyser