SLOVENSKI STANDARD
SIST EN 62150-4:2010

01-marec-2010

Optične aktivne komponente in naprave - Osnovni preskusni in merilni postopki - 4. del: Meritve šuma relativne intenzivnosti z uporabo časovno domenskega optičnega detektorskega sistema (IEC 62150-4:2009)

Fibre optic active components and devices - Basic test and measurement procedures - Part 4: Relative intensity noise using a time-domain optical detection system (IEC 62150-4:2009)

Aktive Lichtwellenleiter-Bauteile und -Bauelemente - Grundlegende Prüf- und Messverfahren - Teil 4: Messung des relativen Intensitätsrauschens unter Anwendung eines optischen Zeitbereichs-Empfangssystems (IEC 62150-4:2009)

Composants et dispositifs actifs à fibres optiques - Procédures d'essais et de mesures - Partie 4 : Intensité relative du bruit en utilisant un système de détection optique dans le domaine temporel (CEI 62150-4:2009)

Ta slovenski standard je istoveten z: EN 62150-4:2010

ICS:

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices

SIST EN 62150-4:2010 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62150-4

January 2010

ICS 33.180.20

English version

Fibre optic active components and devices - Test and measurement procedures - Part 4: Relative intensity noise using a time-domain optical detection system

(IEC 62150-4:2009)

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CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62150-4:2010 E

Foreword

The text of document 86C/918/FDIS, future edition 1 of IEC 62150-4, 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 62150-4 on 2009-12-01.

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)	2010-09-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-12-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62150-4:2009 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 61280-2-2	-	Fibre optic communication subsystem test procedures - Part 2-2: Digital systems - Optical eye pattern, waveform and extinction ratio measurement	EN 61280-2-2	-
IEC 61300-3-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-6: Examinations and measurements - Return loss	EN 61300-3-6	-
IEC 62007-2	-	Semiconductor optoelectronic devices for fibre optic system applications - Part 2: Measuring methods	EN 62007-2	-
IEEE 802.3	2005	IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications	-	-
ITU-T Recommendation G.957	-	Optical interfaces for equipments and systems relating to the synchronous digital hierarchy	-	-

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INTERNATIONAL STANDARD

colour inside

Fibre optic active components and devices – Test and measurement procedures – Part 4: Relative intensity noise using a time-domain optical detection system

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES – TEST AND MEASUREMENT PROCEDURES –

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FOREWORD

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International Standard IEC 62150-4 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/918/FDIS	86C/931/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.

A list of all the parts in the IEC 62150 series, under the general title *Fibre optic active components and devices – Test and measurement procedures*, 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

Laser intensity noise can be one of the limiting factors in the transmission of analogue or digital signals. It can reduce the signal-to-noise ratio and increase the bit error rate, therefore degrading system performance. Laser intensity noise can vary significantly depending on the properties of the laser and back reflections. In order to optimize communication links, it is essential to accurately characterize the laser intensity noise, compare it with the signal strength, and if necessary allow an appropriate power budget.

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