

SLOVENSKI STANDARD

SIST EN 62149-4:2010

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Nadomešča:

SIST EN 62149-4:2004

Aktivne komponente in naprave optičnih vlaken - Izvedbeni standardi - 4. del: 1300 nm oddajnikov in sprejemnikov optičnih vlaken za Gigabit Ethernet uporabo (IEC 62149-4:2010)

Fibre optic active components and devices - Performance standards - Part 4: 1 300 nm fibre optic transceivers for Gigabit Ethernet application (IEC 62149-4:2010)

iTeh STANDARD PREVIEW

Aktive Lichtwellenleiterbauelemente und -geräte - Betriebsverhalten - Teil 4: 1 300-nm-Lichtwellenleiter-Sende- und Empfangsmodule für Gigabit-Ethernet-Anwendungen (IEC 62149-4:2010)

[SIST EN 62149-4:2010](https://standards.iteh.ai/catalog/standards/sist/47ef49-6e59-425f-8ebb-8513e455e641/iec-62149-4-2010)

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Composants et dispositifs actifs à fibres optiques - Normes de fonctionnement - Partie 4: Emetteurs-récepteurs à fibres optiques de 1 300 nm pour application Gigabit Ethernet (CEI 62149-4:2010)

Ta slovenski standard je istoveten z: EN 62149-4:2010

ICS:

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62149-4

June 2010

ICS 33.180.20

Supersedes EN 62149-4:2003

English version

**Fibre optic active components and devices -
Performance standards -
Part 4: 1 300 nm fibre optic transceivers for Gigabit Ethernet application
(IEC 62149-4:2010)**

Composants et dispositifs actifs à fibres
optiques -
Normes de fonctionnement -
Partie 4: Emetteurs-récepteurs à fibres
optiques de 1 300 nm pour application
Gigabit Ethernet
(CEI 62149-4:2010)

Aktive Lichtwellenleiterbauelemente
und -geräte -
Betriebsverhalten -
Teil 4: 1 300-nm-Lichtwellenleiter-Sende-
und Empfangsmodule für Gigabit-
Ethernet-Anwendungen
(IEC 62149-4:2010)

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CENELEC

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

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Foreword

The text of document 86C/912/CDV, future edition 2 of IEC 62149-4, 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 62149-4 on 2010-06-01.

This European Standard supersedes EN 62149-4:2003.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) 2011-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

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The text of the International Standard IEC 62149-4:2010 was approved by CENELEC as a European Standard without any modification.

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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 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 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	-
IEC 60068-2-20	-	Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	EN 60068-2-20	-
IEC 60068-2-27	-	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	-
IEC 60068-2-38	-	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	EN 60068-2-38	-
IEC 60068-2-78	-	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	-
IEC 60749-25	-	Semiconductor devices - Mechanical and climatic test methods - Part 25: Temperature cycling	EN 60749-25	-
IEC 60749-26	-	Semiconductor devices - Mechanical and climatic test methods - Part 26: Electrostatic discharge (ESD) sensitivity testing - Human body model (HBM)	EN 60749-26	-
IEC 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 60938-1	-	Fixed inductors for electromagnetic interference suppression - Part 1: Generic specification	EN 60938-1	-
IEC 60950-1 (mod)	2001	Information technology equipment - Safety - Part 1: General requirements	EN 60950-1 + corr. December + A11	2001 2007 2004
IEC 61300-2-47	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-47: Tests - Thermal shocks	EN 61300-2-47	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 8802-3	2000	Information technology - Telecommunications - and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications		-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic active components and devices – Performance standards –
Part 4: 1 300 nm fibre optic transceivers for Gigabit Ethernet application**

**Composants et dispositifs actifs à fibres optiques – Normes de
fonctionnement –
Partie 4: Emetteurs-récepteurs à fibres optiques de 1 300 nm pour application
Gigabit Ethernet**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES –
PERFORMANCE STANDARDS –**
**Part 4: 1 300 nm fibre optic transceivers
for Gigabit Ethernet application**

FOREWORD

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International Standard IEC 62149-4 has been prepared by subcommittee 86C: Fibre optic active devices, of IEC technical committee 86: Fibre optics.

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

CDV	Report on voting
86C/912/CDV	86C/949/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 second edition cancels and replaces the first edition published in 2003. It constitutes a technical revision that includes changes and additions to the performance tables reflecting new technology.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 62149 series, published under the general title *Fibre optic active components and devices – Performance standards*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

Fibre optic transceivers are used to convert electrical signals into optical signals and vice versa. This specification covers the performance standard for 1 300 nm fibre optic transceivers for Gigabit Ethernet application. The ISO/IEC 8802-3 Gigabit Ethernet standard is used as the basis for determining the optical characteristics of the transceiver, which operates with a line rate of 1,25 Gbit/s.

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