

STN	Optovláknové aktívne súčiastky a prvky Skúšobné a meracie postupy Časť 5: Nastavovací čas kanálu vlnovej dĺžky pre nastaviteľné vysieláče	STN EN 62150-5 35 9256
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Fibre optic active components and devices - Test and measurement procedures - Part 5: Wavelength channel tuning time of tuneable transmitters

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/18

Obsahuje: EN 62150-5:2017, IEC 62150-5:2017

126189

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

EN 62150-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 33.180.20

English Version

Fibre optic active components and devices - Test and
measurement procedures - Part 5: Wavelength channel tuning
time of tuneable transmitters
(IEC 62150-5:2017)

Composants et dispositifs actifs à fibres optiques -
Procédures d'essais et de mesures -
Partie 5: Durée d'accordement des émetteurs accordables
en longueur d'onde
(IEC 62150-5:2017)

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Europäisches Komitee für Elektrotechnische Normung

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EN 62150-5:2017**European foreword**

The text of document 86C/1440/FDIS, future edition 1 of IEC 62150-5, 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 approved by CENELEC as EN 62150-5:2017.

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IEC 62150-1	NOTE	Harmonized as EN 62150-1.
IEC 62522	NOTE	Harmonized as EN 62522.



INTERNATIONAL STANDARD

NORME INTERNATIONALE

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procedures –
Part 5: Wavelength channel tuning time of tuneable transmitters**

**Composants et dispositifs actifs à fibres optiques – Procédures d'essais et
de mesures –
Partie 5: Durée d'accordement des émetteurs accordables en longueur d'onde**





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INTERNATIONAL STANDARD

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 33.180.20

ISBN 978-2-8322-4277-3

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES –
TEST AND MEASUREMENT PROCEDURES –****Part 5: Wavelength channel tuning time of tuneable transmitters**

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International Standard IEC 62150-5 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/1440/FDIS	86C/1445/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 parts in the IEC 62150 series, published under the general title *Fibre optic active components and devices – Test and measurement procedures*, can be found on the IEC website.

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

INTRODUCTION

This part of IEC 62150 specifies testing and measurement procedures for the wavelength channel tuning time of a tuneable transmitter. In a multiple-wavelength network, such as described in the ITU-T G.989 series, the tuneable transmitter is controlled to change its output wavelength during its operation. In order to provide different use cases, the tuneable transmitters are categorized into several wavelength channel tuning time classes. The test and measurement procedures of the wavelength channel tuning time are established to guarantee interoperability.

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

Part 5: Wavelength channel tuning time of tuneable transmitters

1 Scope

This part of IEC 62150 specifies test and measurement procedures for the wavelength channel tuning time of tuneable transmitters. It applies to laser transmitters, and to the transmitter portion of transceivers. This procedure examines whether the device or module satisfies the appropriate performance specification.

The method described in this document uses optical filters to transfer the transition of the output wavelength to the transition of the optical power. This is because the transient response of the output wavelength before stabilization at steady-state of the target wavelength channel is too fast to measure using a wavelength meter or an optical spectrum analyser. Reference optical filter sets are described in Annex A.

2 Normative references

There are no normative references in this document.

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