SVENSK STANDARD SS-EN 62150-5

Fastställd	Utgåva	Sida	Ansvarig kommitté
2018-02-21	1	1 (1+15)	SEK TK 86

Fiberoptik – Aktiva komponenter – Mätning och provning – Del 5: Våglängdskanals inställningstid hos avstämbara sändare

Fibre optic active components and devices – Test and measurement procedures – Part 5: Wavelength channel tuning time of tuneable transmitters

Som svensk standard gäller europastandarden EN 62150-5:2017. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62150-5:2017.

Nationellt förord

Europastandarden EN 62150-5:2017

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62150-5, First edition, 2017 - Fibre optic active components and devices - Test and measurement procedures - Part 5: Wavelength channel tuning time of tuneable transmitters**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 33.180.20

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62150-5

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)

Aktive Lichtwellenleiter-Bauteile und -Bauelemente - Prüf- und Messverfahren - Teil 5: Wellenlängenkanal-Abstimmzeit von abstimmbaren Sendern (IEC 62150-5:2017)

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62150-5:2017 E

SEK Svensk Elstandard

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.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2018-03-15
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-06-15

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

Endorsement notice

The text of the International Standard IEC 62150-5:2017 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 60191 Series	NOTE	Harmonized as EN 60191 Series.
IEC 60747-5 Series	NOTE	Harmonized as EN 60747-5 Series.
IEC 60825 Series	NOTE	Harmonized as EN 60825 Series.
IEC 62149-1	NOTE	Harmonized as EN 62149-1.
IEC 62150-1	NOTE	Harmonized as EN 62150-1.
IEC 62522	NOTE	Harmonized as EN 62522.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

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FOREWORD

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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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

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.