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REDLINE VERSION

# INTERNATIONAL STANDARD



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**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 2-43: Tests – Screen testing of return loss of single-mode PC optical fibre connectors**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –**

#### **Part 2-43: Tests – Screen testing of return loss of single-mode PC optical fibre connectors**

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IEC 61300-2-43 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: addition of Clause 3 containing terms, definitions, and abbreviated terms.

The text of this International Standard is based on the following documents:

Draft	Report on voting
86B/4628/FDIS	86B/4652/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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# FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

## Part 2-43: Tests – Screen testing of return loss of single-mode PC optical fibre connectors

### 1 Scope

This part of IEC 61300 aims at screening single-mode physical contact (PC) optical fibre ~~connectors~~ connector plugs of an optical fibre patch cord or an optical fibre pigtail in terms of return loss, thus ensuring minimum return loss when the ~~connectors~~ connector plugs, ~~which have been screen tested by this method~~ are randomly mated with each other in the field. This document is intended to apply to cylindrical ferrule connector plugs.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 2-43: Tests – Screen testing of return loss of single-mode PC optical fibre connectors**

**Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –  
Partie 2-43: Essais – Sélection des connecteurs PC pour fibres optiques unimodales en fonction de leur affaiblissement de réflexion**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES  
AND PASSIVE COMPONENTS –  
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 2-43: Tests – Screen testing of return loss of  
single-mode PC optical fibre connectors**

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# **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –**

## **Part 2-43: Tests – Screen testing of return loss of single-mode PC optical fibre connectors**

### **1 Scope**

This part of IEC 61300 aims at screening single-mode physical contact (PC) optical fibre connector plugs of an optical fibre patch cord or an optical fibre pigtail in terms of return loss, thus ensuring minimum return loss when the connector plugs are randomly mated with each other in the field. This document is intended to apply to cylindrical ferrule connector plugs.

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IEC 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

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## COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

**DISPOSITIFS D'INTERCONNEXION  
ET COMPOSANTS PASSIFS FIBRONIQUES –  
PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –****Partie 2-43: Essais – Sélection des connecteurs PC pour fibres optiques  
unimodales en fonction de leur affaiblissement de réflexion**

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Cette troisième édition annule et remplace la deuxième édition parue en 2014. Cette édition constitue une révision technique.

La présente édition inclut la modification technique majeure suivante par rapport à l'édition précédente: ajout de l'Article 3 contenant les termes, définitions et abréviations.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
86B/4628/FDIS	86B/4652/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). Les principaux types de documents développés par l'IEC sont décrits plus en détail sous [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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## **DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –**

### **Partie 2-43: Essais – Sélection des connecteurs PC pour fibres optiques unimodales en fonction de leur affaiblissement de réflexion**

#### **1 Domaine d'application**

La présente partie de l'IEC 61300 a pour objet de procéder à une sélection des fiches de connexion pour fibres optiques unimodales à contact physique (PC, *physical contact*) montées sur un cordon de brassage à fibre optique ou une fibre optique amorce, en fonction de leur affaiblissement de réflexion, pour garantir ainsi un affaiblissement de réflexion minimal lorsque les fiches de connexion sont accouplées sans choix préalable dans le terrain. Le présent document est destiné à s'appliquer aux fiches de connexion équipées de férules cylindriques.

#### **2 Références normatives**

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IEC 61300-3-6, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-6: Examens et mesures – Affaiblissement de réflexion*