

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Performance standard –**

**Part 086-02: Non-connectorized single-mode bidirectional 1490 / 1550 nm downstream and 1310 nm upstream WDM devices for category C – Indoor controlled environment**

**Dispositifs d'interconnexion et composants passifs fibroniques - Norme de performance –**

**Partie 086-02: Dispositifs WDM à unimodaux non connectés bidirectionnels 1 490 nm/1 550 nm en voie descendante et 1 310 nm en voie montante pour la catégorie C – Environnement intérieur contrôlé**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND  
PASSIVE COMPONENTS – PERFORMANCE STANDARD –****Part 086-02: Non-connectorized single-mode bidirectional 1 490/1 550 nm  
downstream and 1 310 nm upstream WWDM devices  
for category C – Indoor controlled environment**

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IEC 61753-086-02 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 first edition cancels and replaces the first edition of IEC 61753-086-2 published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Change of test conditions harmonizing with IEC 61753-1: 2018.

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

Draft	Report on voting
86B/4998/FDIS	86B/5023/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/publications](http://www.iec.ch/publications).

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## **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –**

### **Part 086-02: Non-connectorized single-mode bidirectional 1 490/1 550 nm downstream and 1 310 nm upstream WWDM devices for category C – Indoor controlled environment**

#### **1 Scope**

This part of IEC 61753 contains the minimum initial performance, test and measurement requirements and severities which a fibre optic pigtailed 1 490/1 550 nm downstream and 1 310 nm upstream wide wavelength division multiplexing (WWDM) passive optical network (PON) device will satisfy in order to be categorized as meeting the requirements of category C (indoor controlled environment), as defined in IEC 61753-1:2018, Annex A. WWDM is defined in IEC 62074-1. Annex B gives general information for these PON WWDM devices.

#### **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 60793-2-50, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*

IEC 60794-2-50, *Optical fibre cables – Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies*

IEC 61300 (all parts), *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*

IEC 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

IEC 61300-2-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal)*

IEC 61300-2-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-4: Tests – Fibre or cable retention*

IEC 61300-2-5, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-5: Tests – Torsion*

IEC 61300-2-9, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-9: Tests – Shock*

IEC 61300-2-14, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – High optical power*

IEC 61300-2-17, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-17: Tests – Cold*