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INTERNATIONAL STANDARD

**Fibre optic interconnecting devices and passive components performance standard –
Part 031-6: Non-connectorized single-mode 1, N and 2×N non-wavelength-selective branching devices (NWBD) for Category O – Uncontrolled environment**

INTERNATIONAL
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COMPONENTS PERFORMANCE STANDARD –**
**Part 031-6: Non-connectorized single-mode 1×N and 2×N
non-wavelength-selective branching devices (NWBD) for Category O –
Uncontrolled environment**

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86B/2704/FDIS	86B/2725/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.

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A list of all the parts in the IEC 61753 series, under the general title *Fibre optic interconnecting devices and passive components performance standard*, can be found on the IEC website.

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- withdrawn,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

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INTRODUCTION

This International Standard takes into account two technologies present on the market: the Fused Biconical Taper (FBT) and the Planar Lightwave Circuit (PLC). The requirements cover balanced bidirectional non-connectorized single-mode $1\times N$ and $2\times N$ non-wavelength-selective branching devices for use in an IEC Category O environment (N is the number of output ports), especially but not exclusively used for PON network application. The specifications of unbalanced branching devices are limited to 1×2 and 2×2 devices because they are the most commonly used.

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS PERFORMANCE STANDARD –

Part 031-6: Non-connectorized single-mode 1×N and 2×N non-wavelength-selective branching devices (NWBD) for Category O – Uncontrolled environment

1 Scope

This part of IEC 61753 contains the minimum initial tests and measurement requirements and severities which a non-wavelength selective branching device (NWBD) should satisfy in order to be categorized as meeting the requirements of Category O (uncontrolled environment) as defined in Annex A of IEC 61753-1.

2 Normative references

The following normative 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.

IEC 60793-2, *Optical fibres – Part 2: Product specifications – General*

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/cable retention*

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

IEC 61300-2-14, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – Optical power handling and damage threshold characterization*

IEC 61300-2-19, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Damp heat (steady state)*

IEC 61300-2-22, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Change of temperature*

IEC 61300-2-42, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Static side load for connectors*

IEC 61300-2-44, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Flexing of the strain relief of fibre optic devices*

IEC 61300-2-48, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Temperature-humidity cycling*

IEC 61300-3-2, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-2: Examinations and measurements – Polarization dependence of attenuation in a single-mode fibre optic device*

IEC 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

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

IEC 61300-3-7, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-7: Examinations and measurements – Wavelength dependence of attenuation and return loss*

IEC 61300-3-20, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-20: Examinations and measurements – Directivity of fibre optic branching devices*

IEC 61753-021-6, *Fibre optic interconnecting devices and passive components -Performance standard – Part 021-6: Grade B/2 single-mode fibre optic connectors for category O - Uncontrolled environment*