



PANDA PM Bend Insensitive R5

Polarization Maintaining Bend Insensitive for 5 mm bend radius at 1310 nm and 1550 nm respectively

PANDA PM Specialty Fibers are designed and optimized to provide the best polarization maintaining properties, and are the leading industry standard in the world today. PANDA PM Bend Insensitive R5 Specialty Optical Fiber is designed with significant improved bend performance down to 5 mm radius, suited to meet the needs of reduced packaging and high data rate, and to enable optical networks, datacom, data center densification.

PANDA PM fibers are optimized for high reliability, and our Boron-doped stress rod profile is field proven to support high growth applications over a wide temperature range.

PANDA PM Specialty Optical Fiber design uses two stress applying parts to create an extremely high birefringence, resulting in fiber with excellent polarization maintaining properties. This design was invented and patented by Corning Incorporated. Corning continues to have a manufacturing partnership with Fujikura Ltd.

Applications

Small and reduced size optical transceivers, transponders, modulators and laser fiber assemblies
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Bend insensitive optical components and modules

Miniaturized and highly integrated optical components

Sensors, detectors and polarization management devices
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Polarization dependent components

Features

Significantly improved bending capacity and performance

Extremely high birefringence

Single-mode design

Fibers available with dual-layer UV acrylate
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Fiber type	Nominal wavelength	Bending radius
PMBI R5 1310	1310 nm	5 mm
PMBI R5 1550	1550 nm	5 mm

Key Optical Specifications

Fiber type	PMBI R5 1310	PMBI R5 1550
Part Number	PMBI-R5-13-U25D	PMBI-R5-15-U25D
Operating Wavelength (nm)	1310	1550
Cutoff Wavelength (nm)	≤ 1260	≤ 1500
Mode-field Diameter (μm)	7.8 ± 0.5	9.0 ± 0.4
Maximum Attenuation (dB/km)	≤ 3.0	
Maximum Beat Length (mm)	≤ 3.0	
Maximum Bending Cross-talk (dB) (@ Operating wavelength, bend radius = 5 mm and 10 turns)	≤ -30	
Maximum Bending loss (dB) (@ Operating wavelength, bend radius = 5 mm and 10 turns)	≤ 0.1	

Key Geometric, Mechanical, and Environmental Specifications

Part Number	PMBI-R5-13-U25D	PMBI-R5-15-U25D
Bending radius (mm)	5	
Cladding Outside Diameter (μm)	125 ± 1	
Coating Outside Diameter (μm)	245 ± 15	
Core-to-Cladding Concentricity (μm)	≤ 0.5	
Operating Temperature (°C)	-40 °C to +85 °C *	
Standard Lengths	100 m, 200 m, 400 m and 500 m	
Proof test (kpsi)	200	

* Mid-temperature coating (**MT**) rated for -40 °C to +150 °C is available for these fibers and the part numbers are:

Fiber type	PMBI R5 1310 MT	PMBI R5 1550 MT
Part Number	PMBI-R5-13-U25 MT	PMBI-R5-15-U25 MT



CORNING

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