



## PANDA PM RCBI R5 1310 nm and 1550 nm

Polarization Maintaining Reduced Clad Bend Insensitive Fiber for 5 mm bend radius at 1310 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 RCBI R5 1310 nm and 1550 nm (Reduced Clad 80  $\mu$ m diameter Bend Insensitive down to 5 mm radius) Specialty Optical Fiber is designed with significant improved bend performance down to 5 mm radius, suited to meet the needs of miniaturized packaging and high data rate, and to enable optical networks, datacom and data center densification.

PANDA PM RCBI R5 1310 nm and 1550 nm fibers are optimized for excellent high reliability, and our Boron-doped stress rod profile is field proven to support high growth applications over a wide temperature range.

PANDA PM RCBI R5 1310 nm and 1550 nm 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

Compact and miniaturized optical transceivers, transponders, modulators and laser fiber assemblies
Bend insensitive optical components and modules
Miniaturized and highly integrated optical components
Interconnects in pluggable modules
Polarization dependent components

### Features

Significantly improved bending capacity and performance
Extremely high birefringence
Single-mode design
Fibers available with dual-layer UV acrylate

Fiber type	Nominal wavelength	Bending radius
PM RCBI R5 1310	1310 nm	5 mm
PM RCBI R5 1550	1550 nm	5 mm

#### Key Optical Specifications

Fiber type	PM RCBI R5 1310	PM RCBI R5 1550
Part Number	PM RCBI-R5-13-U17D	PM RCBI-R5-15-U17D
Operating Wavelength (nm)	1310	1550
Cutoff Wavelength (nm)	≤ 1260	≤ 1500
Mode-field Diameter (μm)	7.4 ± 0.5	8.6 ± 0.4
Maximum Attenuation (dB/km)	≤ 3.0	
Maximum Beat Length (mm)	≤ 3.0	≤ 3.5
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	

\* For Mid-Temperature coated version (PM RCBI R5 1310 **MT** and PM RCBI R5 1550 **MT**) rated for temperature range of -40 °C to +150 °C, Maximum Bending Cross-talk (dB) (@ Operating wavelength, bend radius = 5 mm and 10 turns) is ≤ -27 dB

#### Key Geometric, Mechanical, and Environmental Specifications

Part Number	PM RCBI-R5-13-U17D	PM RCBI-R5-15-U17D
Bending radius (mm)	5	
Cladding Outside Diameter (μm)	80 ± 1	
Coating Outside Diameter (μm)	165 ± 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	PM RCBI R5 1310 <b>MT</b>	PM RCBI R5 1550 <b>MT</b>
Part Number	PM RCBI-R5-13-U17DMT	PM RCBI R5-15-U17DMT



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