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Datasheet

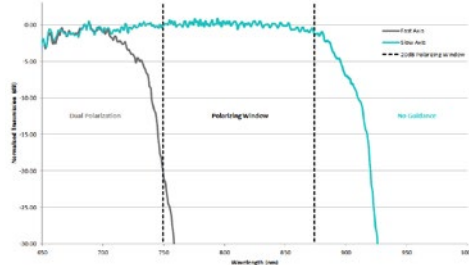
Zing™ Polarizing Fiber

Fibercore Zing™ is an all-fiber polarizer, guiding only a single-polarization state, providing practical real world polarizing performance. Straight or coiled, Zing™ delivers the high Polarization Extinction Ratio (PER) and broad, stable operating window that applications demand.

The secret of this excellent performance is the extreme birefringence that only a 'Bow-Tie' geometry Polarization Maintaining (PM) fiber can create. With polarization beat-lengths approaching 0.5mm at 633nm, Fibercore Zing™ can provide 100nm of practical, usable polarizing bandwidth, providing a wide variety of packaging and source options – cabled or coiled, narrow line width laser or broadband Amplified Spontaneous Emission (ASE) source.

The polarizing window may be tuned by changing the length of the fiber and the coil diameter, either individually or together, altering the central wavelength and the width of the operating window.

Proven Results



Rapid bend loss on the loosely guided fast axis

Strong guidance on the slow axis

>100nm polarizing window possible at the chosen operating window

Advantages:

- Broadband polarization window
- High polarization extinction ratio
- High stability over temperature and vibration
- High reliability due to all-fiber design
- Tunable polarization window

Typical applications:

- Fiber lasers
- Laser diodes
- Fiber Optic Gyroscopes (FOGs)
- Current sensors
- Interferometric sensors

Product Variants:

- **HB830Z(5/80)** Polarizer fiber for all-fiber polarizers at 830nm
- **HB1060Z(7/125)** Polarizer fiber for all-fiber polarizers at 1060nm
- **HB1310Z(9/80)** Polarizer fiber for all-fiber polarizers at 1310nm
- **HB1550Z(11/80)** Polarizer fiber for all-fiber polarizers at 1550nm
- **HB1550Z(11/80)** Polarizer fiber for all-fiber polarizers at 1550nm -50mm
- **HB1550Z(11/125)** Polarizer fiber for all-fiber polarizers at 1550nm

Related Products:

- Standard PM Fiber (HB)
- PM Gyro Fiber (HB-G)
- Telecoms PM Fiber (HB-T)
- Polyimide Coated PM Fiber (HB-P)



Specifications

	HB830Z (5/80)	HB1060Z (7/125)	HB1310Z (9/80)	HB1550Z (11/80)	HB1550Z (11/80)-50mm *	HB1550Z (11/125)
Operating Wavelength (nm)	830	1064	1310	1550		
20dB Fast Edge*	≤790	≤1015	≤1270	≤1500		
3dB Slow Edge*	≥860	≥1105	≥1370	≥1600		
Polarization Extinction Ratio* (dB)	≥30					
Mode Field Diameter (μm)	4.1 - 7.7 @830nm	6.0 - 8.0 @1064nm	7.0 - 10.3 @1310nm	8.5 - 13.5 @1550nm		10.0 - 12.5 @1550nm
Attenuation (dB/km)	≤20					
Proof Test (%)	1 (100 kpsi)					
Cladding Diameter (μm)	80 ± 1	125 ± 1	80 ± 1		125 ± 1	
Core Concentricity (μm)	≤1.0					
Coating Diameter (μm)	170 ± 5	245 ± 7	170 ± 5		245 ± 7	
Coating Type	Dual Layer Acrylate					
Operating Temperature (°C)	-55 to +85					

* Typical polarizing performance with deployment conditions of 5m length in a coil.

* Zing™ fibers are designed to provide the polarizing window in a 90mm coil diameter. Variants with an * are designed for smaller diameters of 50mm.