



VERSION: MD15/4
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Datasheet

PM Erbium Doped Fiber

PM Erbium Doped Fiber combines Fibercore's greatest areas of expertise: erbium doped fiber and Polarization Maintaining (PM) fiber. It unites the well-established core composition of IsoGain™ Erbium Doped Fiber (EDF), with the highly effective 'Bow-Tie' geometry used in the Highly Birefringent (HB) PM fiber range.

PM Erbium Doped Fiber is invaluable in mode-locked fiber lasers, or in any specialized items that demand polarization maintenance. With high peak absorption, this fiber is particularly suitable for small gain length Erbium Doped Fiber Amplifiers (EDFAs) and research applications requiring very short active fiber regions.

Supported by Fibercore's GainMaster™ simulation software

Advantages:

- High absorption for short lengths
- PM design to maintain polarization state

Related Products:

- GainMaster™ simulation tool
- Erbium Doped Fiber IsoGain™
- Standard PM Fiber (HB)
- Telecoms PM Fiber (HB-T)
- PM Gyro Fiber (HB-G)
- Zing™ Polarizing Fiber (HB-Z)
- PM Coupler Fiber (HB-C)

Product Variant:

- **DHB1500** PM erbium doped fiber for PM EDFAs
- **DHB1500-LA** PM erbium doped fiber for PM EDFAs

Typical applications:

- EDFAs
- Coherent communications
- Amplified Spontaneous Emission (ASE) light solutions
- Fiber lasers

Specifications

	DHB1500	DHB1500-LA
Cut-Off Wavelength (nm)		860 - 960
Numerical Aperture	0.22 - 0.26	0.22 - 0.24
Mode Field Diameter (μm)	5.1 - 6.7 @1550nm	5.5 - 6.7 @1550nm
Absorption (dB/m)	10 (nominal) @980nm 12 - 27 @1531nm	3.0 - 5.5 @1531nm
Beat-Length (mm) @633nm		≤ 4.0
Proof Test (%)		1 (100 kpsi)
Attenuation (dB/km) @1200nm	≤ 20	≤ 15
Cladding Diameter (μm)		125 ± 1
Core Cladding Concentricity (μm)		≤ 1.0
Coating Diameter (μm)		245 ± 7
Coating Type		Dual Layer Acrylate
Operating Temperature (°C)		-55 to +85

Typical 'Bow-Tie' HiBi Fiber Geometry

