



Doped Fiber

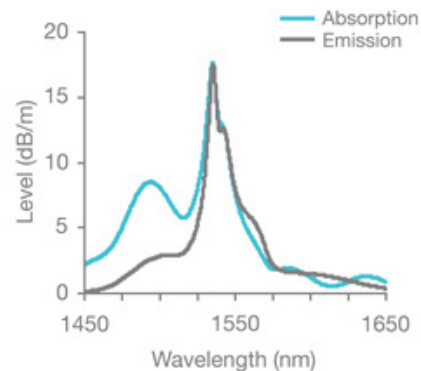
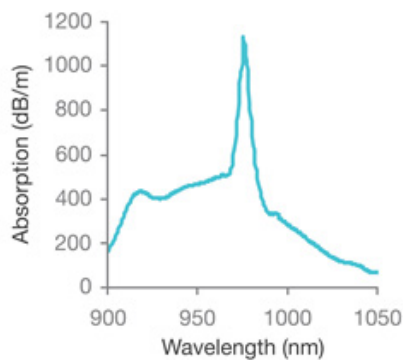
VERSION: NEWPORT 14/1
RELEASE DATE: 8 NOVEMBER 2013

Datasheet

SM Erbium/Ytterbium Doped Fiber

Fibercore's SM Erbium/Ytterbium Doped Fiber (DF1500Y) is a Single-Mode (SM) Erbium (Er) and Ytterbium (Yb) doped fiber, providing extremely high levels of pump absorption and emission around the telecoms C and L band windows. The fiber can be used for lower power fiber lasers, pre-amplifiers and Amplified Spontaneous Emission (ASE) light sources. The high absorption is ideal for applications requiring short gain lengths, for example femtosecond mode-locked ring lasers.

The mixture of Erbium and Ytterbium extends the 915nm pump absorption band to 980nm with a relatively flat absorption rate until the 980nm peak. This allows low cost, non-stabilized 940nm pumps to be used where variations in the pump wavelength with temperature will have a much smaller effect on the output power than pumping at 980nm.



Advantages:

- Extremely high pump absorption for short length amplifiers
- Relatively flat pump absorption region around 940nm to allow use of low-cost non-stabilized pump diodes
- Suitable as a pre-amplifier before CP1500Y

Related Products:

- Dual-Clad Erbium/Ytterbium Doped Fiber (CP1500Y)
- Erbium Doped Fiber IsoGain™
- Erbium Doped Fiber MetroGain™

Typical applications:

- Telecoms
- Erbium Doped Fiber Amplifier (EDFA)
- Cable Television (CATV)
- Fiber Laser

Product Variant:

- **DF1500Y** Core pumped ErYb low power 1550nm laser fiber



Specifications

	DF1500Y
Operating Wavelength (nm)	1550
Cut-Off Wavelength (nm)	950 - 1050
Numerical Aperture	0.20 - 0.24
Mode Field Diameter (μm)	5.3 – 6.8
Absorption (dB/m)	1000 (Nominal) @975nm 10 – 15 @1047nm 20 (Nominal) @1532nm
Attenuation (dB/km)	≤200 @1200nm
Proof Test (%)	1 (100 kpsi)
Cladding Diameter (μm)	125 ± 1
Core Cladding Concentricity	≤0.5 μm
Coating Diameter (μm)	245 ± 15
Coating Type	Dual Acrylate

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