



Doped Fiber

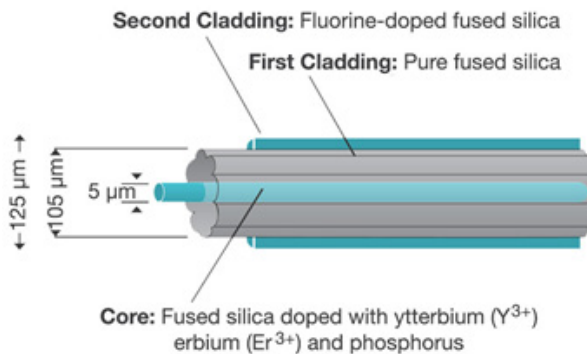
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Datasheet

Dual-Clad Erbium/Ytterbium Doped Fiber

Unlike other cladding pump or dual-clad fibers, Fibercore's Dual-Clad Erbium/Ytterbium Doped Fiber (CP1500Y) was originally designed as a high-power communications amplifier fiber. The pump light is guided within an all-silica structure, using a fluorinated secondary cladding to create the pump guide boundary, without the need for low index polymers. The all-silica design gives outstanding power handling across full temperature and humidity ranges, without the reliability problems observed in low index polymer cladding designs.

The all-silica design means the fiber can be stripped, cleaved and spliced using standard telecoms industry equipment, without the need to recoat the fiber.



Advantages:

- All-silica design engineered for environmental stability
- Easy to strip, cleave and splice
- Petal structure optimizes pump conversion effectively
- Pump Guiding Structure is not removed after coating stripping process. Therefore, there is no need for low index recoating
- Field proven in volume applications since 1999

Related Products:

- Isolating Wavelength Division Multiplexer (CP-IWDM)
- Multi-Mode Pump Fiber (MM105)
- Passive Dual-Clad Fiber (SMM900)

Typical applications:

- High Power Erbium Doped Fiber Amplifiers (EDFAs)
- Ytterbium/Erbium Doped Fiber Amplifier (YEDFA)
- Fiber Lasers
- Light Radar (LIDAR)
- Cable Television (CATV)

Product Variant:

- **CP1500Y** Double clad ErYb doped fiber for high power amplifiers for CATV applications



Specifications

	CP1500Y
Laser Core	
Composition	Phosphosilicate with erbium and ytterbium
Operating Wavelength (nm)	1520 - 1570
Numerical Aperture	0.20 – 0.22
Mode Field Diameter (µm)	5.6 – 6.4 @1550nm
Cut-Off Wavelength (nm)	1300 - 1450
Attenuation (dB/km)	≤ 200 @1240nm
Absorption (dB/m)	19 (Nominal) @1550nm
Pump Guide	
Composition	Pure silica with F-doped silica cladding
Numerical Aperture	0.24 – 0.28
Mean Core Diameter (µm)	85 – 105
Absorption (dB/m)	1 (Nominal) @940nm
General	
Proof Test Level (%)	1 (100 kpsi)
Coating Type	Dual Acrylate
Cladding Diameter (µm)	125 ± 1
Coating Diameter (µm)	245 ± 15

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