

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.

A polarization maintaining version (PMCP1500Y(6.0/125)0.2) is available with PANDA stress rods to enable integration into polarization sensitive applications such as automotive and airborne LiDAR.

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.

FEATURES

Advantages

- All-silica and high reliability 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
- No need for low index recoating
- High absorption and efficiency

Typical Applications:

- High Power Erbium Doped Fiber Amplifiers (EDFAs)
- Ytterbium/Erbium Doped Fiber Amplifier (YEDFA)
- Fiber Lasers
- Light Radar (LiDAR)
- Cable Television (CATV)
- Automotive and aerospace sensors
- Coherent amplifiers

Product Variants

- CP1500Y
Double clad ErYb doped fiber
- PMCP1500Y(6.0/125)0.2
Polarization maintaining double clad ErYb doped fiber

To find out more visit [fibercore.com](https://www.fibercore.com)

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SPECIFICATIONS

	CP1500Y	PMCP1500Y(6.0/125)0.2
Laser Core		
Composition	Phosphosilicate with erbium and ytterbium	
Operating Wavelength (nm)	1530 - 1625	
Numerical Aperture	0.20 - 0.22	
Mode Field Diameter (μm)	5.6 - 6.5 @1550nm	
Cut-Off Wavelength (nm)	1290 - 1510	
Absorption (dB/m)	19 (nominal) @1550nm	55 (nominal) @1535nm
Birefringence	-	1.3 x 10 ⁻⁴ (nominal)
Pump Guide		
Composition	Pure silica with F-doped silica cladding	
Numerical Aperture	0.24 - 0.28	0.20 - 0.22
Multimode Core Outer Diameter (μm)	102 - 106	100 - 110
Absorption (dB/m)	1 (nominal) @940nm	
General Guide		
Proof Test (%)	1 (100 kpsi)	
Cladding Diameter (μm)	125 ± 1	
Coating Diameter (μm)	245 ± 7	250 ± 10
Coating Type	Dual Layer Acrylate *	
Operating Temperature (°C)	-55 to +85	

* High temperature acrylate variant

RELATED PRODUCTS

- Isolating Wavelength Division Multiplexer
- Large Core Fiber
- All Silica Double Clad Fiber (SMM900)

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