

10/125 Ytterbium-Doped LMA Double Clad Fiber

Nufern's polarization maintaining, Large Mode Area (LMA), Ytterbium-doped double clad fiber is ideal for linearly polarized high power fiber lasers and amplifiers used in military, industrial, and medical applications. LMA Yb-doped fibers enable efficient, compact, diode pumped fiber sources that are an attractive alternative to traditional solid-state lasers. This fiber features a large core/cladding ratio with a low NA and is ideally suited for pulsed laser applications.

Typical Applications

- Pulsed fiber lasers and amplifiers
- Material processing
- LIDAR
- Non-linear optics / frequency doubling

Features & Benefits

- LMA core design and short amplifier length — Useful for generating high peak powers
- Easy to maintain single mode LP01 beam through fiber & components
- PANDA-style stress structure for increased birefringence — Superior optical performance and uniformity
- All fiber proof tested to ≥ 100 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications

Operating Wavelength (nominal)	1060-1115 nm
Cladding Absorption @ 915 nm	1.6 ± 0.3 dB/m
Cladding Absorption @ 975nm (nominal)	5 dB/m
Core Numerical Aperture (nominal)	0.075
Cladding Numerical Aperture (nominal)	0.46
Birefringence (nominal)	3.0×10^{-4}

Geometrical & Mechanical Specifications

Core Diameter	11 ± 1 μ m
Clad Diameter	125 ± 2 μ m
Coating Diameter	245 ± 15 μ m
Core/Clad Offset	≤ 1 μ m
Outer Cladding Material	Low Index Polymer
Proof Test Level (radius bend method)	≥ 100 kpsi (0.7 GN/m ²)

PLMA-YDF-10/125

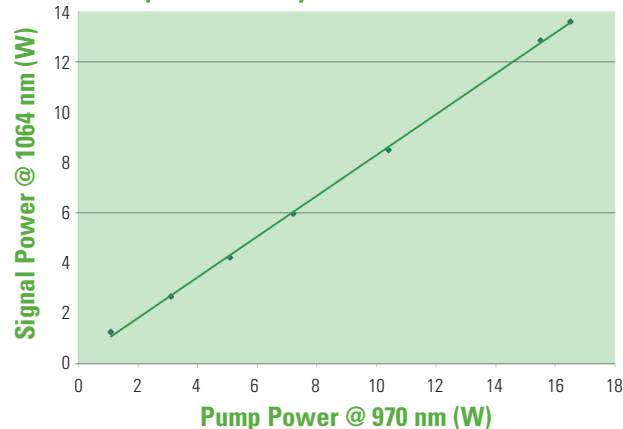
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Cladding Absorption @ 975nm (nominal)	5 dB/m
Core Numerical Aperture (nominal)	0.075
Cladding Numerical Aperture (nominal)	0.46
Birefringence (nominal)	3.0×10^{-4}

LMA-YDF-10/130

Operating Wavelength (nominal)	1060-1115 nm
Cladding Absorption @ 915 nm	1.6 ± 0.3 dB/m
Cladding Absorption @ 975nm (nominal)	5 dB/m
Core Numerical Aperture (nominal)	0.075
Cladding Numerical Aperture (nominal)	0.46
Birefringence (nominal)	n/a

Note: The passive version of this fiber is also available.

Slope Efficiency for PLMA-YDF-10/125



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Nufern products are manufactured under an ISO 9001:2000 certified quality management system.

Standard specifications and design parameters are listed above. Specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Nufern can assist with your requirements.

