

High Absorption 10/125 Ytterbium-Doped PLMA Double Clad Fiber



Featuring the latest Gen VIII glass composition, Coherent's Large Mode Area (LMA) and Polarization Maintaining LMA (PLMA) Ytterbium-doped double clad fibers are ideally suited for applications spanning military, industrial and medical including linearly polarized fiber lasers and amplifiers. 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 single mode large core/cladding ratio with a low NA and is ideally suited for both CW and pulsed laser applications.

Typical Applications

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

Features & Benefits

- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- 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	1060 – 1115 nm
Core NA	0.080
First Cladding NA (5%)	≥ 0.460
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm
Cladding Absorption	2.05 ± 0.25 dB/m at 915 nm 6.00 dB/m near 976 nm
Birefringence	nominal 3×10^{-4}

PLMA-YDF-10/125-HI-8

Geometrical & Mechanical Specifications

Cladding Diameter	125.0 ± 1.0 μm
Core Diameter	11.5 ± 1.0 μm
Coating Diameter	245.0 ± 15.0 μm
Core/Clad Offset	≤ 1.00 μm
Proof test Level	≥ 100 kpsi (0.7 GN/m ²)



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www.coherent.com ; www.shop.coherent.com • Coherent products are manufactured under an ISO 9001:2008 certified quality management system.



Custom developed fiber (FUD) 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 Coherent can assist with your requirements.

NU0179- 11/12/2020