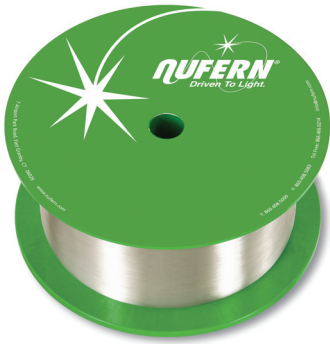


Eye Safe 25/300 Erbium Ytterbium Co- Doped LMA Double Clad Fibers



The first true Large Mode Area (LMA) Er:Yb fiber featuring a unique low NA (0.1) Er:Yb core design, achieved without sacrificing high pump conversion efficiency and developed for applications where robustly single-mode output beam quality is critical. The high NA (0.46) 300µm cladding waveguide allows for efficient coupling of high pump powers, while the large core diameter (25µm) maintains a large-mode field diameter and short device length, thereby minimizing deleterious non-linear effects such as SBS and SRS. Both non-PM and PANDA-style PM fibers are available, as are a range of support fibers for component and pigtail development efforts. As with all Nufern standard LMA fibers, these fibers are proof tested to 100 kpsi, an industry requirement for long-term reliability when coiling for mode filtering.

Typical Applications

- Eye safe lasers and amplifiers
- Military and commercial LIDAR
- High peak power, pulsed fiber amplifiers
- Ultra-short pulse fiber amplifiers

Features & Benefits

- Unique low NA Er:Yb co-doped core design — Few moded core, for robust SM beam quality
- Large mode field diameter — Increased threshold for non-linearities
- Optimized, high efficiency core glass composition — Suitable for high power operation
- 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 for mode filtering

Optical Specifications

Operating Wavelength (nominal)	1550 nm
Cladding Absorption @ 915 nm	0.8 ± 0.2 dB/m
Peak Core Erbium Absorption (nominal)	25 dB/m near 1535 nm
Core Numerical Aperture (nominal)	0.10
Cladding Numerical Aperture (nominal)	0.46
Birefringence (nominal)	2.0×10^{-4}

PLMA-EYDF-25/300

LMA-EYDF-25/300

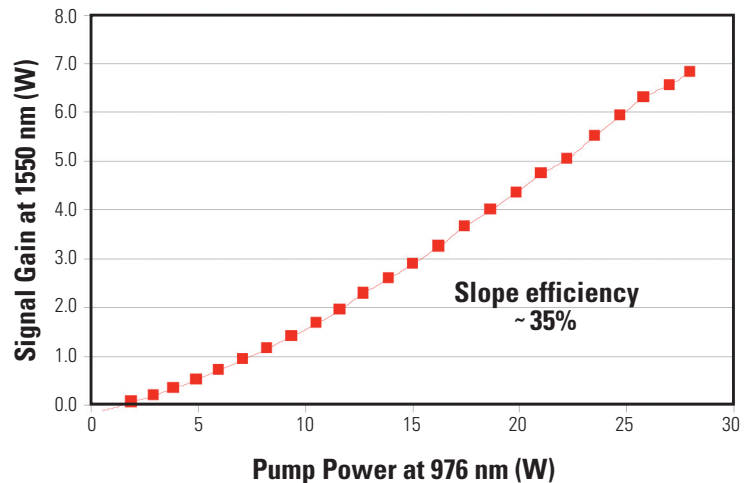
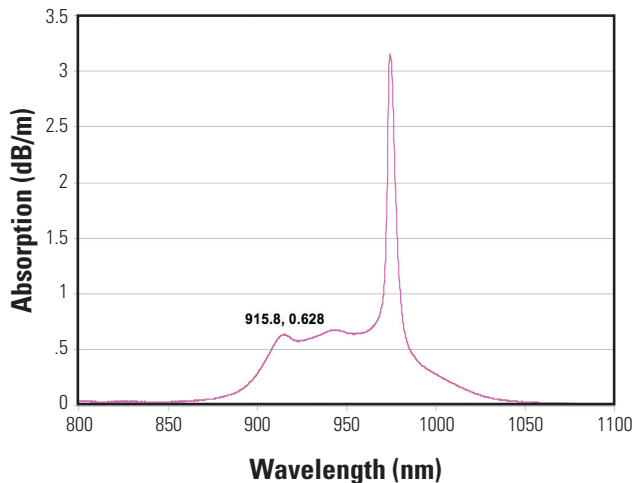
Operating Wavelength (nominal)	1550 nm
Cladding Absorption @ 915 nm	0.6 ± 0.2 dB/m
Peak Core Erbium Absorption (nominal)	25 dB/m near 1535 nm
Core Numerical Aperture (nominal)	0.10
Cladding Numerical Aperture (nominal)	0.46
Birefringence (nominal)	NA

Geometrical & Mechanical Specifications

Core Diameter	25 ± 3 µm
Clad Diameter	300 ± 10 µm
Coating Diameter	450 ± 25 µm
Outer Cladding Material	Low Index Polymer
Proof Test Level (radius bend method)	≥ 100 kpsi (0.7 GN/m ²)

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



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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.