



CATV Amplifier 6/125 Er:Yb-Doped Double Clad Fiber

Nufern's proprietary rare earth doping technology is used to deliver Er:Yb co-doped fibers with industry leading tolerances on the key spectroscopic parameters. This ensures the essential lot-to-lot reproducibility required for volume manufacturing of high power CATV and telecom optical amplifiers at 1550 nm. With a core composition optimized for all pump wavelengths (915–976 nm), these fibers demonstrate high efficiency and high power operation without rollover, enabled by the optimized double clad fiber design.

Typical Applications

- CATV and Telecom amplifiers

Features & Benefits

- NuCOAT™ fluorocrylate coating – Greater fiber durability in extreme environmental operating & storage conditions
- Single-mode core design – Low splice loss to transmission fiber
- Double clad design – High power performance and high power conversion efficiency
- Optimized core composition – High 915–976 nm pump efficiency
- Tight mechanical and optical tolerances – High yield and uniformity in device manufacturing

Optical Specifications

Operating Wavelength
Core NA
First Cladding NA (5%)
Mode Field Diameter
Cutoff
Normalized Cross Talk

SM-EYDF-6/125-HE

1530 – 1625 nm
0.180
≥ 0.46
6.8 ± 0.8 μm @ 1550 nm
1440 ± 80 nm
N/A
0.75 ± 0.15 dB/m at 915 nm
40.0 ± 10.0 dB/m near 1535 nm

PM-EYDF-6/125-HE

1530 – 1625 nm
0.180
≥ 0.46
6.8 ± 0.8 μm @ 1550 nm
1440 ± 80 nm
≤ - 25.0 dB at 10 m @ 1300 nm
0.75 ± 0.15 dB/m at 915 nm
40.0 ± 10.0 dB/m near 1535 nm

Geometrical & Mechanical Specifications

Cladding Diameter
Cladding Diameter (flat-to-flat)
Core Diameter
Coating Diameter
Core/Clad Offset
First Cladding Material
Coating Material
Prooftest Level

N/A
125.0 ± 3.0 μm
6.0 μm
245.0 ± 15.0 μm
≤ 1.00 μm
Low Index Polymer
N/A
≥ 100 kpsi (0.7 GN/m²)

The passive version of each fiber is also available.



7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 E-mail info @ nufern.com • www.nufern.com Nufern products are manufactured under an ISO 9001:2008 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.

