NuEYDF-SMR Active Fibers

NuEYDF-SMR Erbium-Ytterbium co-doped active single-mode fibers are designed to meet the demanding performance requirements for fast-growing LIDAR and satellite communication applications. These fibers feature HTA coating for high temperature LIDAR/Autonomous Vehicle navigation applications, radiation resistance for space applications and are optimized for low lasing threshold and high efficiency.

Typical Applications

- Fiber Laser Amplifiers for
  - LIDAR and Autonomous Vehicle Navigation
  - Space Applications
  - CATV

Features & Benefits

- HTA Coating for high temperature automotive applications
- Radiation resistance for space applications
- Inhibits parasitic 1 µm ASE
- All Glass Design to provide high optical reliability for the pump wavelength

Optical Specifications	SMR-EYDF-6/110/125-HTA	SMR-EYDF-10P/110/125-HTA
Operating Wavelength	1530 - 1625 nm	1530 - 1625 nm
Core NA	0.21	0.14
First Cladding NA (5%)	0.23 ± 0.01	0.23 ± 0.01
Second Cladding NA	≥0.46	≥0.46
Core Attenuation	≤ 200 dB/km at 1310 nm	≤ 200 dB/km at 1310 nm
Core Absorption	60 ± 10 dB/m near 1530 nm	75 ± 20 dB/m near 1530 nm
Cladding Absorption	2.0 ± 1.0 at 915 nm	2.7 ± 1.0 at 915 nm
Cladding Attenuation	≤ 15 dB/km at 1095 nm	≤ 15 dB/km at 1095 nm
Mode Field Diameter	6.0 ± 0.5 µm	9.2 ± 1.1 µm
Geometrical & Mechanical Specifications		
Cladding Diameter	110 ± 5 µm	110 ± 5 µm
Core Diameter (Nominal)	6 µm	10 µm
Coating Diameter	245 ± 10 µm	245 ± 10 µm
Core/Clad Offset	≤ 0.8 µm	≤ 1 µm
Coating Material	High Temperature Acrylate	High Temperature Acrylate
Prooftest Level	≥ 100 kpsi (0.7 GN/m2)	≥ 100 kpsi (0.7 GN/m2)
Matched Passive Fiber	SM-GDF-6/110/125-HTA	SM-GDF-10/110/125-HTA SM-GTF-10/110/125-HP

COHERENT

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

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