



# 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  $\mu$ m ASE
- All Glass Design to provide high optical reliability for the pump wavelength

## Optical Specifications

	SMR-EYDF-6/110/125-HTA
Operating Wavelength	1530 - 1625 nm
Core NA	0.21
First Cladding NA (5%)	$0.23 \pm 0.01$
Second Cladding NA	$\geq 0.46$
Core Attenuation	$\leq 200$ dB/km at 1310 nm
Core Absorption	$60 \pm 10$ dB/m near 1530 nm
Cladding Absorption	$2.0 \pm 1.0$ at 915 nm
Cladding Attenuation	$\leq 15$ dB/km at 1095 nm
Mode Field Diameter	$6.0 \pm 0.5$ $\mu$ m

## SMR-EYDF-10P/110/125-HTA

Operating Wavelength	1530 - 1625 nm
Core NA	0.14
First Cladding NA (5%)	$0.23 \pm 0.01$
Second Cladding NA	$\geq 0.46$
Core Attenuation	$\leq 200$ dB/km at 1310 nm
Core Absorption	$75 \pm 20$ dB/m near 1530 nm
Cladding Absorption	$2.7 \pm 1.0$ at 915 nm
Cladding Attenuation	$\leq 15$ dB/km at 1095 nm
Mode Field Diameter	$9.2 \pm 1.1$ $\mu$ m

## Geometrical & Mechanical Specifications

Cladding Diameter	$110 \pm 5$ $\mu$ m
Core Diameter (Nominal)	6 $\mu$ m
Coating Diameter	$245 \pm 10$ $\mu$ m
Core/Clad Offset	$\leq 0.8$ $\mu$ m
Coating Material	High Temperature Acrylate
Proof Test Level	$\geq 100$ kpsi (0.7 GN/m <sup>2</sup> )

Cladding Diameter	$110 \pm 5$ $\mu$ m
Core Diameter (Nominal)	10 $\mu$ m
Coating Diameter	$245 \pm 10$ $\mu$ m
Core/Clad Offset	$\leq 1$ $\mu$ m
Coating Material	High Temperature Acrylate
Proof Test Level	$\geq 100$ kpsi (0.7 GN/m <sup>2</sup> )

**Matched Passive Fiber** SM-GDF-6/110/125-HTA

SM-GDF-10/110/125-HTA  
SM-GTF-10/110/125-HP



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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.

NU0324- 11/12/2020