

PM Erbium-Doped Single-Mode Fiber

Coherent's high performance erbium-doped fiber and industry leading PM PANDA-style fiber capabilities are combined in a unique PM erbium fiber product, PM-ESF-7/125. Featuring a high erbium concentration (peak absorption 55 dB/m) and high pump conversion efficiency achieved with proprietary technology that delivers industry leading tolerances on the key spectroscopic parameters. The non-PM SM-ESF-7/125 is also available for applications that do not require a polarized signal.

Typical Applications

- PM amplifiers
- Polarized lasers
- · Ultra-short pulse laser

Features & Benefits

PM-ESF-7/125

1530 - 1625 nm

- PANDA-style stress structure for increased birefringence superior optical performance and uniformity
- High Er dopant concentration enables short length devices
- · High efficiency good conversion of pump to signal power

SM-ESF-7/125

1530 - 1625 nm

Optical Specifications

Operating Wavelength			
Core NA			
Mode Field Diameter			
Cutoff Normalized Cross Talk			
NUTITALIZEU CIUSS TAIK			

Core Absorption

Birefringence

Geometrical & Mechanical Specifications

Cladding Diameter Core Diameter Coating Diameter Coating Concentricity Core/Clad Offset Coating Material Operating Temperature Range Prooftest Level

0.150	0.150
8.8 ± 1.0 μm @ 1550 nm	8.8 ± 1.0 μm @ 1550 nm
9.1 ± 1.0 μm @ 1620 nm	9.1 ± 1.0 μm @ 1620 nm
1460 ± 60 nm ≤ - 35.0 dB at 4 m @ 1300 nm	1400 ± 60 nm N/A
55.0 ± 5.0 dB/m near 1530	55.0 ± 5.0 dB/m near 1530
nm	nm
3.5 × 10 ⁻⁴	N/A

125.0 ± 1.5 µm	125.0 ± 1.5 μm
7.4 ± 0.6 μm	7.0 ± 0.2 μm
245.0 ± 15.0 μm	245.0 ± 15.0 μm
< 5.0 µm	< 5.0 µm
≤ 0.50 µm	≤ 0.50 µm
Acrylate	Acrylate
-40 to 85 °C	-40 to 85 °C
≥ 100 kpsi (0.7 GN/m²)	≥ 100 kpsi (0.7 GN/m²)



Nufern • 7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 • Email: tech.sales@coherent.com 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.