

DCF-EY-8/105/125-14/22-HTA

All-Glass Erbium/Ytterbium co-doped double-clad fiber



This Erbium/Ytterbium co-doped fiber offers high absorption to minimize fiber length required and non-linear effects. Its core composition is expertly designed for efficient pump energy conversion in 1.5 μm fiber lasers and amplifiers. Featuring an all-glass design and a high-temperature resistant coating, this fiber is made for the rigorous environmental requirements of the automotive industry and other demanding applications.

Features & Benefits

- High-temperature resistant coating
- All-glass second cladding design - free of low index polymer
- High absorption - shorter fiber length and reduced non linear effects
- High energy conversion
- Optimized Er/Yb core composition – reduces 1 μm parasitic emission

Applications

- Eye-safe fiber lasers and amplifiers for LIDAR
- Space communications
- High-power telecom amplifiers
- Industrial and harsh environment laser sensing

Related Products

- DCF-UN-8/105/125-14/22-HTA
Matched all-glass double-clad passive fiber
- SCF-UN-8/125-14
Matched single-clad passive fiber

Specifications

Optical

| | |
|-------------------------------------|----------------|
| Cladding Absorption @ 915 nm (dB/m) | 4 \pm 1 |
| Core Absorption @ 1535 nm (dB/m) | 75 \pm 20 |
| Cutoff Wavelength (nm) | 1400 \pm 110 |
| MFD @ 1550nm (μm) | 9.4 \pm 0.9 |
| Numerical Aperture - Cladding | Typ. 0.22-0.24 |
| Numerical Aperture - Core | Typ. 0.14 |

Geometrical & Mechanical

| | |
|---|--------------|
| Cladding diameter (μm) | 105 \pm 5 |
| Cladding geometry | Oct. |
| Coating Diameter (μm) | 245 \pm 15 |
| Core/Cladding Concentricity Error (μm) | \leq 0.8 |
| Outer Cladding Diameter (μm) | 125 \pm 2 |
| Proof Test (kpsi) | \geq 100 |

Environmental

| | |
|--|----------|
| Storage Temperature ($^{\circ}\text{C}$) | -40 +150 |
|--|----------|