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)	4.0 ± 1.0
Core Absorption @ 1535 nm (dB/m)	75 ± 20
Numerical Aperture – Core (Typical)	0.14
Numerical Aperture – Cladding (Typical)	0.23 ± 0.01
Cutoff Wavelength (nm)	1400 ± 110
Mode Field Diameter @ 1550 nm (µm)	9.4 ± 0.9

Geometrical & Mechanical

Core Diameter (Typical) (µm)	5.5
Cladding Diameter – Flat-To-Flat (µm)	105 ± 5
Outer Cladding Diameter (µm)	125 ± 2
Core/Cladding Concentricity Error (µm)	≤ 0.8
Cladding Geometry	Octogonal
Coating Diameter (µm)	245 ± 15
Proof Test (kpsi)	≥ 100

Environmental

Operating Non-Condensing Humidity (%)	5 – 85
Operating Temperature (˚C)	0 to +150
Storage Non-Condensing Humidity (%)	5 – 85
Storage Temperature (˚C)	-40 to +150