

SCF-ER50-8/125-14-L

L-band erbium-doped single-clad fiber



An erbium-doped single-clad, single-mode optical fiber designed for L-band operation is specifically engineered to provide efficient amplification in the wavelength range of approximately 1565 to 1610 nm. The single-mode core ensures low dispersion and high beam quality, making it ideal for long-haul telecommunications and high-performance optical systems.

Features & Benefits

- Optimized for L-band operation
- Match standard telecom fibers
- Uniform gain profile
- Reduces ASE, improving signal quality and OSNR
- Higher gain per unit length and more compact designs

Applications

- L-band optical amplifiers (EDFAs)
- Long-haul and ultra-long-haul transmission
- Optical repeaters and inline amplifiers
- High-performance optical communication systems

Specifications

Optical

Background Loss @1200 nm (dB/km)	<= 20
Core Absorption @ 1535 nm (dB/m)	48.5 ± 6.5
Core Absorption @ 980 nm (dB/m)	>= 8
Cutoff Wavelength (nm)	1300 ± 150
MFD @ 1550nm (μm)	9.5 ± 1
Numerical Aperture - Core	Typ. 0.13

Geometrical & Mechanical

Cladding diameter (μm)	125 ± 1
Coating Diameter (μm)	245 ± 10
Core Diameter (μm)	Typ. 8
Core/Cladding Concentricity Error (μm)	<= 1
Proof Test (kpsi)	>= 100

