LUMENTUM

Erbium-Doped Fibers

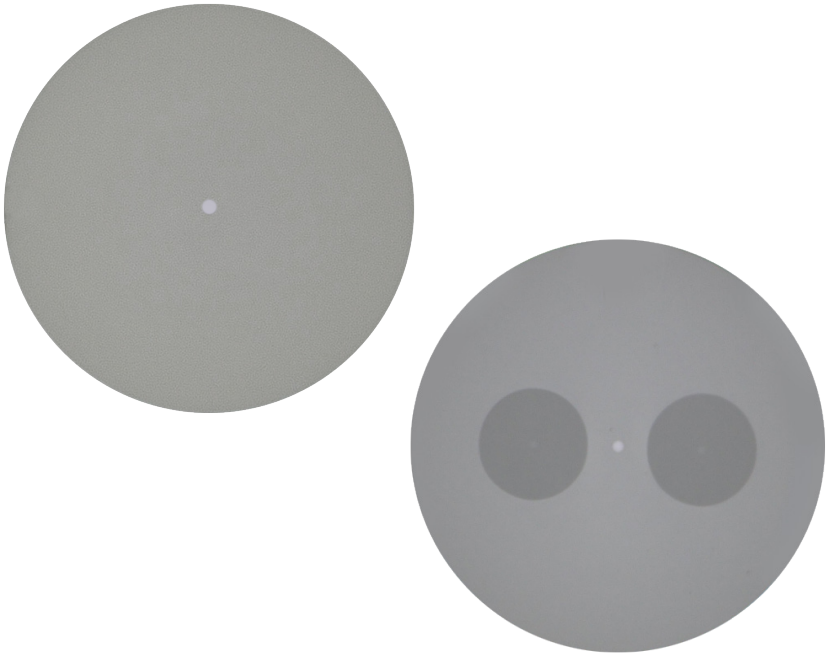
Lumentum Advanced Specialty Optical Fiber Family

Key Features

- Low Noise Figure: Enables superior signal-to-noise ratio for high-performance telecom applications
- Flat Gain Shape: Optimized for maximal gain flatness over C- and L- band
- Customization Options: Cutoff wavelength, core absorption level, and MFD can be tailored to meet customer-specific system requirements.
- PM Version (optional): Featuring stress-rod design, PM version fibers are used for applications requiring polarization control

Lumentum's erbium-doped telecom fibers are designed to deliver exceptional performance in optical amplification applications, ensuring high gain efficiency and low noise for next-generation communication systems. Featuring high absorption levels, these fibers provide reduced length, superior signal integrity, a minimal noise figure, and low nonlinear effects, making them ideal for use in erbium-doped fiber amplifiers (EDFAs) and other high-performance telecom solutions.

With a precisely engineered core and optimized doping levels, our fibers enable efficient amplification across the C-band and L-band, ensuring high reliability and minimal signal distortion in long-haul and high-speed optical networks. These fibers can be customized to match a specific cutoff wavelength, core absorption level, and mode field diameter (MFD) required by the customer, ensuring optimal integration into any telecom system.

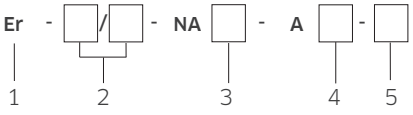


Lumentum erbium-doped telecom fibers are ideal for EDFAs, WDM systems, and long-haul optical communication networks, offering best-in-class gain performance, low-noise operation, and enhanced system efficiency.

GENERAL INFORMATION	
Mode properties	Single mode
Core material	Er - doped fused silica
Coating type	Soft primary and protective secondary acrylate coating
Typical application	EDFAs

OPTICAL CHARACTERISTICS		
Parameter	***Unit***	***Product range***
Peak absorption @1530 nm/m	dB	10 - 30
Core attenuation value @ 1200 nm	dB/km	< 10
Core numerical aperture	/	0.22 - 0.26
Cutoff wavelength	nm	1100 - 1300
Mode field diameter @1550 nm	µm	4 - 6

PHYSICAL CHARACTERISTICS		
Parameter	***Unit***	***Product range***
Cladding diameter	µm	80 or 125
Secondary coating diameter	µm	165 or 245
Tensile proof test level	kpsi	200



1	Dopant (Er)
2	Dimensions: Core size/Cladding size
3	Core NA value
4	Absorption in the core @1530 nm
5	Additional information: PM for polarization-maintaining fiber; CWLx.x for custom cutoff wavelength

Ordering Information

For more information on this or other products and their availability, please contact your local Lumentum account manager or Lumentum directly at customer.service@lumentum.com.

LUMENTUM

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