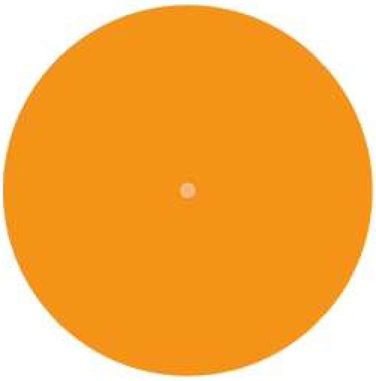
Erbium-Doped Fibers

Drawing of fiber cross section:



Description:

Optimised for pulsed applications, heracle’s advanced Ytterbium-doped Very-Large-Mode Area Polarization Maintaining Fiber offers significant advantages in performance and stability.
Featuring high pump absorption and optimized doping profiles, these fibers enable shorter amplifier designs, superior signal integrity, and low nonlinear effects, making them ideal for use in compact and efficient Erbium-doped fiber amplifiers (EDFAs).
A precisely controlled refractive index profile ensures tight process control, high repeatability, and excellent reliability across the entire L-band. The result is consistent, high-performance amplification with minimal signal distortion for long-haul and high-speed optical networks.

Key Features:

Low Noise Figure:	Enables superior signal-to-noise ratio for high-performance L-band EDFA applications.
Flat Gain Profile:	Optimized for maximum gain flatness across the entire L-band (1565 - 1625 nm).
High Pump Efficiency:	Achieves target gain with shorter coil lengths for compact amplifier designs.
High Quality Manufacturing:	Heracle fibers are produced with meticulous attention to quality, ensuring exceptional performance in every fiber.
GR-20 / GR-326 qualified:	Proven telecom-grade durability and environmental robustness for maximum system lifetime.

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General Information:			
Product Name		**Er-80/165-L**	**Er-125/245-L**
Mode Properties		Single Mode	
Core Material		Er-doped fused silica	
Coating Type		Dual layer coating	
Typical Application		EDFAs	
Performance Properties			
Parameter	**Unit**	**Specification**	
Operation Wavelength	nm	1565 – 1625	
Cutoff wavelength	nm	1200 ± 100	
Tensile Proof Test Level	kpsi (GPa)	200 (1.38)	
Optical Properties			
Mode Field Diameter, $1/e^2$ @ 1550 nm	µm	4.9 ± 0.7	
Peak Absorption @ 1530 nm	dB/m	30 ± 3	
Core Attenuation @ 1200 nm	dB/km	< 10	
Core NA	-	0.26 ± 0.02	
Geometrical Properties			
Cladding Diameter	µm	80 ± 2	125 ± 1
Coating Diameter	µm	165 ± 10	245 ± 10

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