

ERBIUM DOPED FIBER ISO_GAIN™

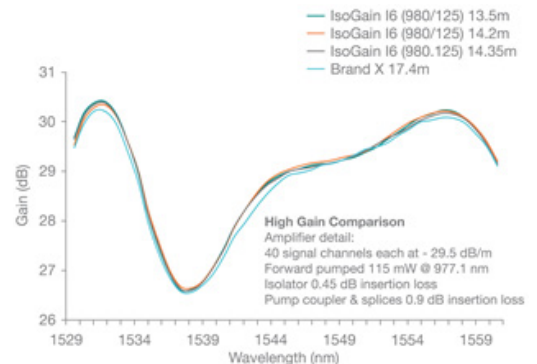


Fibercore's IsoGain™ range of Erbium Doped Fibers (EDFs) offer a wide selection of absorption and cut-off wavelengths to allow the best choice of fiber for each type of Erbium Doped Fiber Amplifier (EDFA) design.

Fibercore's low absorption fibers offer best-in-class efficiency for C-band amplifiers, whilst higher absorption fibers are optimized for L-band EDFAs.

High cut-off wavelength (HC) fibers have larger core diameters, reducing non-linear effects and increasing efficiency at higher pump powers.

The core composition of Fibercore's IsoGain™ has been engineered to generate a substantially flattened wavelength response that closely matches that of other leading fiber types.



FEATURES

Advantages

- High efficiency core composition
- 'HC' variants optimized for high pump power EDFAs
- High absorption fibers for L-band amplifiers and mini/micro C-band EDFAs
- Wide range of absorption values for EDFA design optimization
- Supported by Fibercore's GainMaster™ simulation software

Typical Applications:

- EDFAs / Telecoms
- ASE light sources
 - Gyros
 - Current sensors
 - Distributed sensor systems
- Fiber lasers
- Biomedical illumination
- Optical Coherence Tomography (OCT)

Product Variants

- I-4(980/125)
For high efficiency C-band EDFAs
- I-4(980/125)HC
For high efficiency, high power C-band EDFAs
- I-4(980/125)HP
For high efficiency, high power C-band EDFAs
- I-6(980/125)
Increased absorption for high efficiency C-band EDFAs
- I-12(980/125)
Mid level absorption fiber for short length C-band and L-band EDFAs
- I-12(980/125)HC
High cut-off wavelength, mid level absorption fiber for higher power short length C-band and L-band EDFAs
- I-15(980/125)HC
High cut-off wavelength, mid/high level absorption fiber for higher power short length C-band and L-band EDFAs
- I-25(980/125)
Very high absorption fiber for short length L-band EDFAs

To find out more visit fibercore.com

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SPECIFICATIONS

High Efficiency C-Band Erbium Doped Fibers

	I-4(980/125)	I-4(980/125)HC	I-4(980/125)HP	I-6(980/125)
Cut-Off Wavelength (nm)	870 - 970	1050 - 1320	1100 - 1320	870 - 970
Numerical Aperture	0.22 - 0.24		0.19 - 0.22	0.22 - 0.24
Mode Field Diameter (μm)	5.5-6.6@1550nm	5.2-5.8@1550nm	5.7-6.6@1550nm	5.5-6.3@1550nm
Absorption (dB/m)	5.0-6.7@1531nm	7.7 - 9.4 @1531nm		7.2-8.4@1531nm
Attenuation (dB/km)	≤10			
Proof Test (%)	1 (100 kpsi)			
Polarization Mode Dispersion (ps/m)	≤0.005			
Cladding Diameter (μm)	125 ± 1			
Core Cladding Concentricity (μm)	≤0.3			
Coating Diameter (μm)	245 ± 7			
Coating Type	Dual Layer Acrylate			
Operating Temperature (°C)	-55 to +85			

L-Band and C-Band Erbium Doped Fibers

	I-12(980/125)	I-12(980/125)HC	I-15(980/125)HC	I-25(980/125)
Cut-Off Wavelength (nm)	900 - 970	1200 - 1320		900 - 970
Numerical Aperture	0.21 - 0.23	0.23 - 0.26		
Mode Field Diameter (μm)	5.7-6.6@1550nm	5.0-5.5@1550nm	4.8-5.4@1550nm	5.3-6.3@1550nm
Absorption (dB/m)	14-21@1531nm	17-21@1531nm	27-33@1531nm	35-45@1531nm
Attenuation (dB/km)	≤10			
Proof Test (%)	1 (100 kpsi)			
Polarization Mode Dispersion (ps/m)	≤0.005			
Cladding Diameter (μm)	125 ± 1			
Core Cladding Concentricity (μm)	≤0.3			≤0.5
Coating Diameter (μm)	245 ± 7			
Coating Type	Dual Layer Acrylate			
Operating Temperature (°C)	-55 to +85			

Specifications continued on next page.

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SPECIFICATIONS CONTINUED

Reduced Cladding Erbium Doped Fiber For Mini and Micro EDFAs

	I-15(980/80)HC	I-25H(1480/80)
Cut-Off Wavelength (nm)	1200 - 1320	900 - 1075
Numerical Aperture	0.24 - 0.26	≥0.30
Mode Field Diameter (μm)	4.8 - 5.4 @1550nm	3.8 - 4.7 @1550nm
Absorption (dB/m)	27 - 33 @1531nm	23 - 27 @1531nm
Attenuation (dB/km)	≤15	≤30
Proof Test (%)	2 (200 kpsi)	1 (100 kpsi)
Polarization Mode Dispersion (ps/m)	≤0.005	
Cladding Diameter (μm)	80 ± 1	
Core Cladding Concentricity (μm)	0.3	≤0.5
Coating Diameter (μm)	170 ± 5	160 ± 5
Coating Type	Dual Layer Acrylate	
Operating Temperature (°C)	-55 to +85	

RELATED PRODUCTS

- Dual Clad Erbium/Ytterbium Doped Fiber
- GainMaster™ Simulation Tool

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