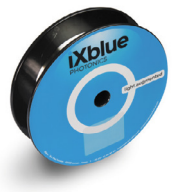
Fiber Optics

iXblue PHOTONICS

LASER COMPONENTS®

AMPLIFY
Wavelength **1.5 µm**

Er Doped | Fibers



Ideal for C and L Band amplifiers

The amplification of optical transmission signals is enabled through our high efficiency Erbium doped fibers. Our wide range of Erbium doped optical fibers allows for tailored optical amplifiers (EDFAs) performance based on your requirements.

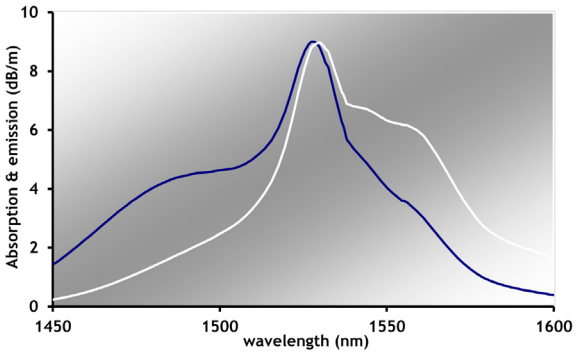
iXblue's Erbium Doped Fibers (EDF) products have been optimized to fulfill the exigency of high efficiency and low noise EDFAs in the C & L bands.

Key Features
- Low noise figure & flat gain shape
- High efficiency
- Low splice loss
- Highly consistent spectroscopy
- 80 µm reduced cladding on request
- PM Panda structure

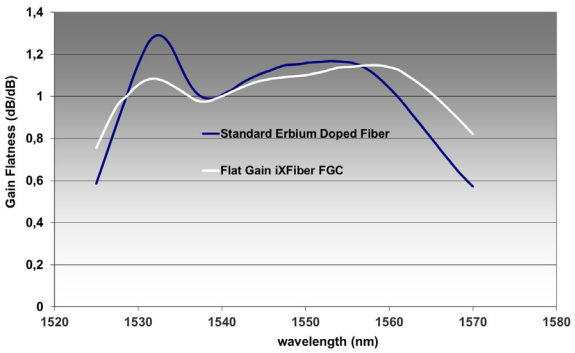
Applications
- 1.5 µm lasers and amplifiers
- EDFA
- Fiber lasers
- Small footprint amplifier

Related Products
- Gain flattening filters
- Custom design
- Space grade PM version

Giles Parameters for FGC series



Standard Normalized Gain Flatness



Parameter	Value
Erbium Lifetime (ms)	10
Er Absorption Cross Section @ 1530 nm (m²)	6,72E-25
Er Emission Cross Section @ 1530 nm (m²)	6,55E-25

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Erbium Single Clad Doped Fibers

Product Name	Fiber Type	Abs. @1480nm (dB/m)	Abs. @1530nm (dB/m)	MFD @1550nm (µm)	Background losses (dB/km)	Cutoff wavelength (nm)	Splice loss (dB)
IXF-EDF-FGC-980-L1	C band	1.5 - 2	3.5 - 4.5	6.5 +/- 1	< 8	< 970	< 0.15 (to HI 980)
IXF-EDF-FGC-980-L2	C band	2 - 2.5	4.5 - 5.5	6.5 +/- 1	< 8	< 970	< 0.15 (to HI 980)
IXF-EDF-FGC-980-L3	C band	2.4 - 3	5.5 - 6.5	6.5 +/- 1	< 8	< 970	< 0.15 (to HI 980)
IXF-EDF-FGC-1480	C band	2.5 - 4.5	6 - 10	5.5 +/- 1	< 8	1200 +/- 100	< 0.15 (to HI 1060)
IXF-EDF-FGL-L1	C & L band	9 - 12	20 - 25	5.0 +/- 1	< 25	< 1300	< 0.15 (to HI 1060)
IXF-EDF-FGL-L2	C & L band	11 - 14	20 - 30	5 .0+/- 1	< 25	< 1300	< 0.15 (to HI 1060)
IXF-EDF-FGL-L3	C & L band	13 - 19	30 - 40	5.0 +/- 1	< 25	< 1300	< 0.15 (to HI 1060)
IXF-EDF-FGL-80	C & L band	9 - 16	25 - 30	5.0 +/- 1	< 25	< 1300	< 0.15 (to SMF 28)
IXF-EDF-SHD-L1	Ase Source	3.5 - 5.5	10 - 14	5.5 +/- 1	< 15	< 1150	< 0.15 (to HI 980)
IXF-EDF-SHD-L2	Ase Source	5 - 7	14 - 18	5.5 +/- 1	< 15	< 1150	< 0.15 (to HI 980)
IXF-EDF-HD	-	35 +/- 5	75 +/- 10	7.5 +/- 1	< 40	< 970	< 0.20 (to HI 980)
Polarization Maintaining Fibers:							
IXF-EDF-FGC-980-PM	PM C band	2 - 3	4.5 - 6.5	6.5 +/- 1	< 8	< 970	< 0.20 (to HI 980)
IXF-EDF-FGC-1480-PM	PM C band	2.5 - 4.5	6 - 10	5.5 +/- 1	< 8	< 1400	< 0.20 (to HI 1060)
IXF-EDF-FGL-PM-L1	PM C & L band	6 - 10	15 - 21	5 +/- 1	< 25	< 1300	< 0.20 (to HI 1060)
IXF-EDF-FGL-PM-L2	PM C & L band	9 - 13	21 - 27	5 +/- 1	< 25	< 1300	< 0.20 (to HI 1060)
IXF-EDF-FGL-PM-L3	PM C & L band	12 - 15	27 - 33	5 +/- 1	< 25	< 1300	< 0.20 (to HI 1060)
IXF-EDF-HD-PM	-	35 +/- 5	75 +/- 10	7.5 +/- 1	< 40	< 970	< 0.20 (to HI 1060)

Common specifcations

- Birefringence: > 2.10^{-4} / Panda type
- Cladding diameter (µm): 125 +/- 2 (80 µm available)
- Coating diameter (µm): 245 +/- 15
- Proof test level (kpsi): 100

Erbium Rad Hard Fibers

Product Name	Abs. @980nm (dB/m)	Abs. @1530nm (dB/m)	MFD @1550nm (µm)	Background losses (dB/km)	Cutoff wavelength (nm)	Splice loss (dB)	RIGV (dB/krad)*
IXF-RAD-AMP-1	8 +/-1	14 +/- 2	5.5 +/- 1	< 15	< 1150	< 0.20 (to smf28)	< 0.07
IXF-RAD-AMP-2	17 +/- 2	25 +/- 3	5.5 +/- 1	< 20	< 1150	< 0.20 (to smf28)	< 0.03
IXF-RAD-AMP-3	13.5 +/- 1.5	16 +/- 2	9.5 +/- 1.5	< 15	< 1150	< 0.20 (to smf28)	< 0.005
Polarization Maintaining Fibers:							
IXF-RAD-AMP-2-PM	15.5 +/- 1.5	25 +/- 3	5.5 +/- 1	< 20	< 1200	< 0.20 (to smf28)	< 0.03

Main_Specifications_31012020

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