

CorActive EDF/EYDF Fibers For Telecom and CATV Optical Amplifiers

CorActive delivers a full range of Erbium doped optical fibers (EDF) to address a wide range of optical amplifier (EDFA) requirements for DWDM, CATV and other telecom applications. CorActive's EDF products have been customized to address the specific requirements of high efficiency and low noise EDFAs for the C & L band. CorActive also offers Er/Yb co-doped fibers (EYDF) for the design of high-power amplifiers (EYDFA) for the Telecom/CATV market.

ADVANTAGES

- Exceptional spectral uniformity ensures a high quality, reliable EDFA product
- Larger MFD delivers lower splice loss to coupling fibers resulting in a higher amplifier PCE and a lower noise figure
- Consistent reproducibility reduces manufacturing costs and increases production yield
- Wide erbium doping range ensures the most cost effective fiber choice for your application
- Industry leading fiber geometry increases signal transfer with precision core alignment
- Low PMD enables EDFA design for high data rate applications
- Standard dual acrylate coating provides superior mechanical resistance characteristics

APPLICATIONS

- DWDM Optical Amplifiers
- PON Networks
- CATV/Telecom Applications
- High-Power Optical Amplifiers

SPECIFICATIONS

Parameter	EDF Single Clad Fibers	EYDF Double Clad Fibers
Optical Specifications		
Clad Numerical Aperture	Not Applicable	> 0.45
Material Specifications		
Core Material	Er Doped Silica Glass	Er/Yb Co-Doped Silica Glass
Inner Clad Material	Silica Glass	Silica Glass
Outer Clad Material	Not Applicable	Fluoroacrylate
Coating Material	Acrylate	Acrylate
Geometrical and Mechanical Specifications		
Clad Geometry	Not Applicable	Octagonal ¹
Core/Clad Concentricity Error (μm)	< 0.5	< 1
Proof Test Level (kpsi)	150	100 ²

¹ Unless otherwise specified. Consult product datasheet to verify cladding geometry of specific model

² Unless otherwise specified. Consult product datasheet to verify proof test level of specific model

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CorActive
Specialty Optical Fiber Manufacturer

STANDARD MODELS

EDF Fibers

CorActive's Erbium Doped Fiber (EDF) products have been customized to address the specific requirements of high efficiency and low noise EDFAs for the C & L band. CorActive's EDF products are offered in high efficiency, flattened gain and reduced noise figure versions for all EDFA applications with 980 or 1480nm pumping.

Erbium Doped Single Clad Fibers						
Model	Core Diameter (μm)	Clad Diameter (μm)	Core NA	MFD @ 1550nm (μm)	Core Absorption (dB/m)	Birefringence
EMP-980	N/A	125 \pm 0.5	0.20	7.3 \pm 0.6	8 \pm 1 (@1530nm)	N/A
EDF-L 900	N/A	125 \pm 0.5	0.23	6.0 \pm 0.5	13 \pm 2 (@1530nm)	N/A
SCF-ER22-5/125-25	N/A	125 \pm 1	0.25	5.7 \pm 0.6	22 \pm 3 (@1530nm)	N/A
SCF-ER30-5/125-25-PM	N/A	125 \pm 2	0.25	5.5 \pm 0.5	30 \pm 5 (@1530nm)	\geq 1.4E-04
ER 105	N/A	125 \pm 2	0.18	7.0 \pm 1.0	5.0 \pm 1 (@980nm)	0.18 \pm 0.02
ER 614	20.0 \pm 2.0	125 \pm 2	0.18 \pm 0.02	N/A	> 10 (@980nm)	0.18 \pm 0.02
ER 637	50.0 \pm 3.0	125 \pm 2	0.22 \pm 0.02	N/A	> 25 (@980nm)	0.22 \pm 0.02

EYDF Fibers

CorActive's Er/Yb co-doped double clad fiber features highly efficient energy transfer that makes these products the ideal solution for the design of multi-watt CATV/Telecom amplifiers.

Erbium/Ytterbium Co-Doped Double Clad Fibers						
Model	Core Diameter (μm)	Clad Diameter (μm)	Core NA	MFD @ 1550nm (μm)	Clad Absorption @ 915nm (dB/m)	Birefringence
DCF-EY-6/128	5.5 \pm 0.5	128 \pm 3	0.20 \pm 0.02	N/A	0.75 \pm 0.15 (@ 915nm)	N/A
DCF-EY-7/128	7.0 \pm 1.0	128 \pm 3	0.20 \pm 0.02	N/A	0.9 \pm 0.3 (@ 915nm)	N/A
DCF-EY-10/128	10.0 \pm 1.0	128 \pm 3	0.20 \pm 0.02	N/A	2.0 \pm 0.6 (@ 915nm)	N/A

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