



Specialty Optical Fiber  
Manufacturer

## PON Erbium-Ytterbium DCOF

**It's all about the power!** B-PON networks require cost effective, multi-watt optical amplifiers. **CorActive's PON Er/Yb Double Clad Optical Fiber (PON Er/Yb DCOF)** has been specifically designed to match the high gain of optical amplifier systems (YEDFAs) for B-PON networks. **CorActive's Er/Yb DCOF** offers a higher doping concentration and among the highest QCE values in the industry. Combining these critical elements in **CorActive's Er/Yb DCOF** ensures minimum fiber length and minimum pump power. This translates directly into substantial savings when building a high power amplifier application.

**CorActive's Co-Doping Technology** utilizes Erbium and Ytterbium dopants to enable the use of a low cost, high power laser diode as an optical pump. Highly efficient energy transfer between Erbium and Ytterbium results in a highly amplified optical signal with minimal pump power and minimal fiber length. **Pump combiners based on CorActive's matching undoped DCOF are available.**

**High Doping Concentration Enables Multi-watt PON YEDFAs**  
**Co-Doping Technology Provides Highly Efficient Energy Transfer**  
**Erbium/Ytterbium Co-Doping Allows Low Cost, High Power Pumps**  
**Best Quantum Conversion Efficiency (QCE)**  
**Polarization Maintaining (PM) Version Available (Upon Request)**  
**Designed to meet applicable Telcordia GR-20**

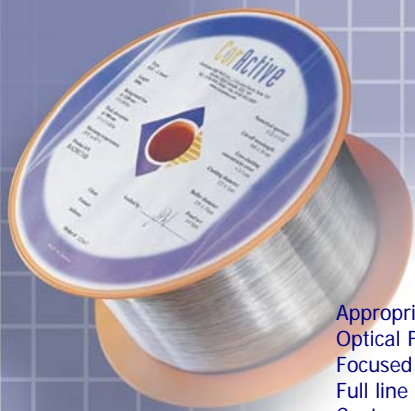
### CorActive's PON YEDF Product Features and Benefits

#### YEDF Product Feature

Co-Doping Technology  
Unrivaled Quantum Conversion Efficiency  
Pump Combiner/DCF Bundle  
High Absorption/Emission  
Variable Pump Guide Shapes  
Consistent Reproducibility yield  
Lower Absorption Variability  
Industry Leading Fiber Geometry

#### Customer Benefits

Ensures highly efficient energy transfer between absorption emission resulting in superior efficiency  
High fiber QCE enables lower pump power which results in pump cost savings and longer YEDFA life  
Pre-spliced gain bundle lowers costs, increases yields and optimizes YDEFA  
Equivalent gain with less fiber enables YEDFA cost and size reduction  
Reduces helical mode propagation and increase absorption efficiency  
Reduces manufacturing costs and increases production  
Consistent high quality fiber ensures lower production costs  
Increases signal transfer with precise core alignment



## CorActive's Unique Advantages

Appropriately scaled production facilities and an excellent financial position ensure CorActive's Specialty Optical Fiber products are among the most cost effective available.

Focused 100% on specialty optical fiber design and manufacture to ensure high quality products.

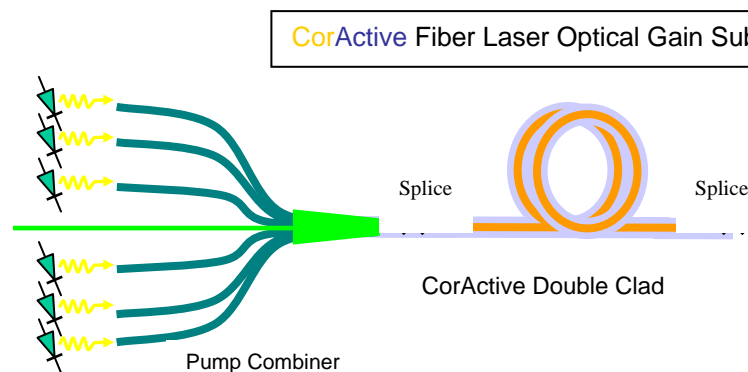
Full line specialty optical fiber supplier – DCOF, IR, EDF, UV Sensitive and Attenuating optical fibers.

Custom specialty optical fiber designs, custom fiber geometry, fiber bundling, AR coating, available.

Strategic supplier relationship opportunities – CorActive does not compete with its customers.

Complete Giles Parameters are provided specifically for each YEDF fiber shipped, enabling a more efficient and cost reduced design process.

YEDFA and Source Applications	HPA-EY-07-01	HPA-EY-10-01	HPA-EY-10-PM
<b>Optical Properties</b>	<b>1 Watt</b>	<b>Up to 4 Watt</b>	
Peak Erbium Core Absorption @ 1535nm (dB/m)	> 20	> 20	> 10
Pump Guide Absorption @ 915nm (dB/m)	> 0.70	> 0,65	> 0.65
Numerical Aperture Core (nominal) Cladding	0.18 > 0.45	0,19 > 0,45	0.17 > 0.45
Core Diameter (µm)	7 ± 1	10 ± 2	10 ± 2
Cut-off Wavelength – nominal (nm)	1450 ± 50	1450 ± 50	1450 ± 50
<b>Physical &amp; Geometric Properties</b>			
Co-Dopants	Er/Yb	Er/Yb	Er/Yb
Pump guide Shape	Heptagon	Hexagon	Hexagon
Pump guide flat-to-flat diameter (µm)	130 ± 5	125 ± 2	135 ± 5



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