

# ERBIUM-DOPED FIBERS FOR L-BAND

## Specification Sheet

### *LSL and LSL 80*



Leading Optical Innovations

Erbium-Doped

#### Product Description

LSL standard and reduced cladding, erbium-doped fibers provide high efficiency, low noise figure, and spectral flatness in L-Band DWDM amplifiers. These fibers have been deployed in the largest volumes in L-Band transport systems. We use patented processes to protect against hydrogen-induced loss.

**OASiX** Software Package. Accurate prediction of EDF performance is essential to applications design. To meet this need, OFS offers the OASiX Optical Amplifier Simulation System Software to design and predict EDFA performance. This specialized software package allows you to accurately predict the performance at all pump powers. OASiX includes modeling parameters specific to the lot of EDF you purchase. OASiX is also available in a DLL version to combine with external optimization tools.

#### Typical Applications

- L-Band DWDM amplifiers

#### Features and Benefits

- High efficiency for L-Band
- Flat gain spectrum
- H<sub>2</sub> insensitive
- High reliability with extensive track record
- Low and consistent splice loss
- Low bend loss
- Dual-layer acrylate coating for excellent micro-bending, abrasion resistance, and mechanical strength
- OASiX modeling support

#### Related Products & Capabilities

- LRL erbium-doped fiber for L-Band
- R37103 and R37102 80 for L-Band
- MP980 or HP980X erbium-doped fiber for C-Band

Ask us about other options available:

- Customized Spectral Shape**
- Coils**
- Custom Designs**

To order items on this spec sheet, please contact our facility in:

- Somerset, New Jersey  
1-732-748-7402
- or by email inquiry to:  
Info@SpecialtyPhotonics.com



Leading Optical Innovations

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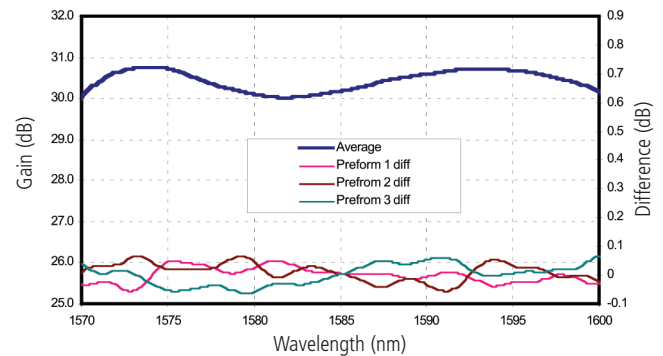
# Fiber Specifications

Optical Properties	LSL	LSL 80
Peak absorption near 1530 nm	17.5 ± 2.5 dB/m	17.5 ± 2.5 dB/m
Cutoff wavelength	1100 - 1400 nm	1100 - 1400 nm
Numerical aperture	0.25 ± 0.02	0.25 ± 0.02
Mode field diameter @ 1550 nm	5.2 ± 0.5 μm	5.2 ± 0.5 μm
PMD (typical)	≤2 fs/m	≤2 fs/m
Loss at 1200 nm	<10 dB/km	<10 dB/km
Physical Properties		
Co-dopants	Ge/Al	Ge/Al
Cladding diameter	125 ± 2 μm	80 ± 2 μm
Coating diameter	250 ± 10 μm	165 ± 10 μm
Core/cladding concentricity error	<0.3 μm	≤0.3 μm
Mechanical and Testing Data		
Proof test level	2.0% (200 kpsi)	2.0% (200 kpsi)
Order by Part Number	108 729 864	300 378 742

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## L-Band Gain Shape Consistency

for >150 km



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