

SPECIALTY OPTICAL FIBER

IXF-SM-1550-125-014-AL

Single Mode Fiber

The IXF-SM family includes singlemode fibers designed for use in harsh environments with extreme temperatures and/or low to moderate radiation levels. Exail offers a wide range of polymer and metallic coatings well-suited for high-temperature applications.

Aluminum coated fibers offer a wide operating temperature range, from cryogenic temperatures up to +400 °C. They are also hermetic to hydrogen, mitigating hydrogen darkening in hydrogen-rich environments.

The IXF-SM-1550-125-014-AL fiber is radiation tolerant and can be used under low to moderate radiation levels, a matching radiation hardened fiber is available for high radiation levels.



Benefits & Features

- Singlemode operation at 1310 and 1550 nm
- Aluminum coating
- Operating temperature up to +400 °C
- Radiation tolerant for low to moderate radiation levels
- Matching radiation hardened fiber available
- Hermetic to hydrogen and water vapor
- Solderable directly to connectors
- Low splice loss to SMF28

Applications

- Transport fiber
- Sensing
- Distributed Temperature Sensing (DTS)

Related Products

- IXF-RAD-SM-1550-014-AL (Rad-Hard fiber)
- IXF-SM-1550-125-0.14-PI
- IXF-SM-1550-125-0.14-HT

Parameters

Cutoff wavelength (nm)	$1150 \leq \lambda_c \leq 1275$
Attenuation @1310 nm (dB/km)	≤ 20
Attenuation @1550 nm (dB/km)	≤ 20
Mode field diameter @1310 nm (μm)	7.8 ± 0.5
Mode field diameter @1550 nm (μm)	9 ± 0.5
Numerical aperture	0.14 ± 0.01
Core/Clad concentricity (μm)	≤ 1
Cladding diameter (μm)	125 ± 2
Coating diameter (μm)	170 ± 10
Proof test level (kpsi)	100

Design parameters

Operating wavelength (nm)	1300 - 1650
Coating material	Aluminum
Operating temperature range (°C)	-269 to +400
Short term bend radius (mm)	15
Long term bend radius (mm)	30

Aluminum coated fiber



Exail reserves the right to change, at any time and without notice, the specifications, design, function or form of its products described herein.

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