

## DESCRIPTION

IRphotonics' Indium Fluoride Fiber is specifically designed for Defense & Aerospace applications such as Infrared Counter Measure Systems (IRCM). Part of the iGuide® family of products, the Indium Fluoride fiber offers a spectral transmission from 0.4 to 5.5  $\mu\text{m}$  with low attenuation and no spectral absorption peak.

IRphotonics' Indium Fluoride Fiber contains very low hydroxyl ions and is specially designed to push out the multi-phonon absorption limit of fluoride fibers providing high transmission efficiency from the visible through mid infrared wavelengths (up to 5.5  $\mu\text{m}$ ).

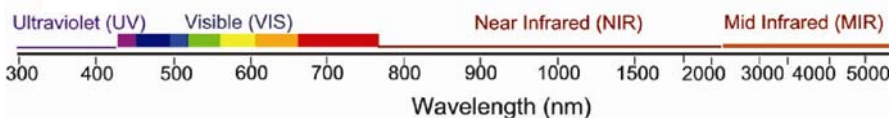
IRphotonics careful choice of materials and its patented manufacturing process gives this fiber outstanding optical, mechanical and environmental properties compared to other infrared fiber technologies.

## FEATURES

- Transparent in VIS, NIR, MID-IR
- Flat Spectral Attenuation
- Very low Fresnel Losses of <4% per facet
- High Mechanical Flexibility
- Leading Low Loss IR Fiber
- Extremely High Damage Threshold
- Bend Insensitive

## APPLICATIONS

- Aerospace & Defense
- Infrared Counter Measure (IRCM) Systems



## Indium Fluoride Fiber



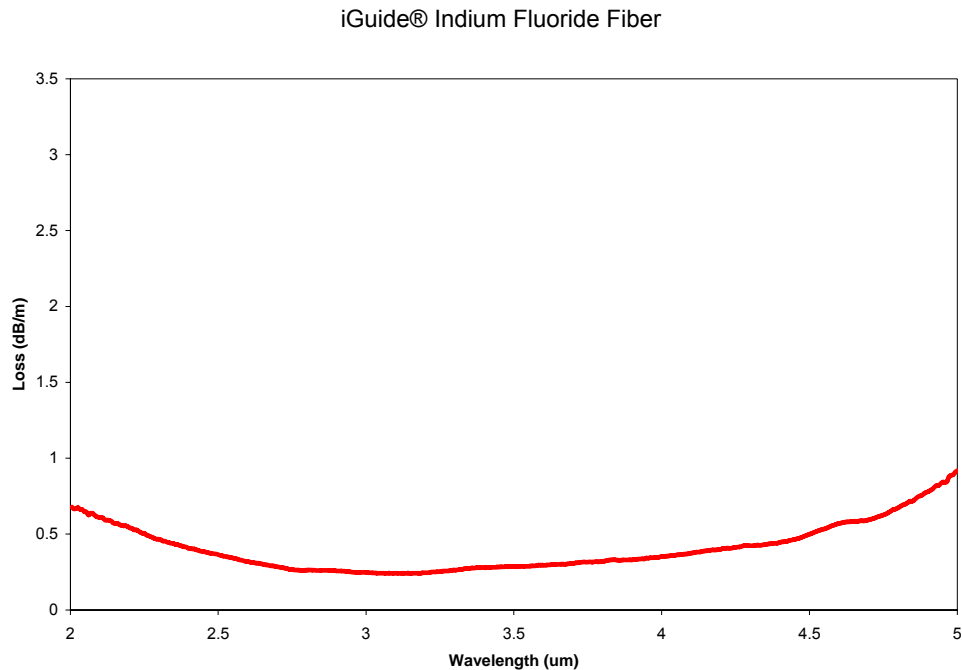
## FIBER SPECIFICATIONS

- Spectral Transmission from 0.4 to 5.5  $\mu\text{m}$
- Fiber Core Diameter from 100  $\mu\text{m}$  to 200  $\mu\text{m}$  (other diameters available on demand)
- Operating Temperature: -20  $^{\circ}\text{C}$  to 90  $^{\circ}\text{C}$
- Numerical Aperture: 0.10 to 0.25 (standard NA: 0.2)
- Low Attenuation with no Significant Spectral Absorption Peaks up to 5.5  $\mu\text{m}$

## COMPATIBLE WITH THE FOLLOWING LASERS

- Fiber Laser
- OPO Laser
- Quantum Cascade Laser
- Super Continuum Laser

## TYPICAL SPECTRAL ATTENUATION



For more information, please contact [sales@irphotonics.com](mailto:sales@irphotonics.com).

### IRPHOTONICS CUSTOMIZATION PROGRAM

If you have any unique requirements, please contact us to discuss tailoring a product or design to optimize optical performance for your specific application. Custom NA's, fiber diameters and other specifications can be adapted to your requirements.

IRphotonics has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation.