



Discover LVF range of **CIR mid-infrared fibers**:

In the **mid infrared**, our chalcogenide infrared (CIR) fibers have optical transmission to match the output from LEDs and solid state infrared lasers including Quantum Cascade types.



Specifications

Operating wavelength	1.1 – 6.5 μm
Typical optical loss in 9-13 μm range	0.2 – 0.4 dB/m
Core refractive index	2.43
Fresnel loss (backwards reflection)	31% per face (air)
Core / cladding material	As ₂ S ₃
Protective jacket	Fluoro polymer + PVC
Operating temperature	– 273 to 90 °C

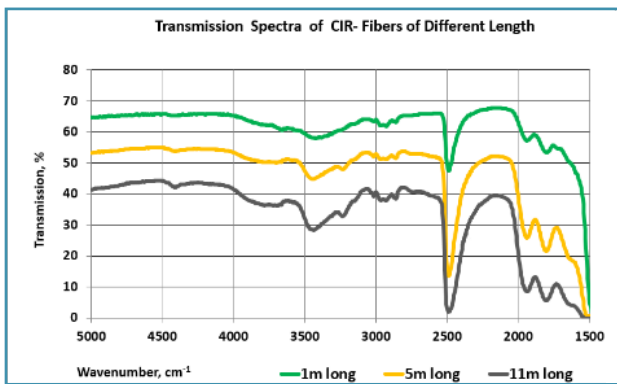
Standard fiber	Type	Core/clad diameter	Protective jacket diameter	Numerical aperture	Minimum bend radius
CIR 8/300	Step Index Single mode	8 \pm 1 300 \pm 15 μm	400 \pm 20 μm	0.25 \pm 0.02	60 mm
CIR 50/250	Step Index Few-mode	50 \pm 3 250 \pm 10 μm	410 \pm 20 μm	0.13 \pm 0.02	50 mm
CIR 250/300	Step Index Multimode	250 \pm 10 300 \pm 15 μm	400 \pm 30 μm	0.30 \pm 0.03	60 mm
CIR 340/400	Step Index Multimode	340 \pm 10 400 \pm 15 μm	510 \pm 30 μm	0.30 \pm 0.03	80 mm
CIR 500/550	Step Index Multimode	500 \pm 1 550 \pm 15 μm	700 \pm 30 μm	0.30 \pm 0.03	100 mm



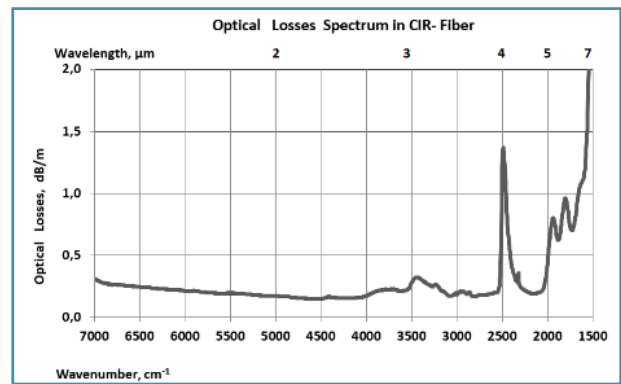


Discover LVF range of **CIR** mid-infrared fibers:

Transmission spectra



Optical Losses

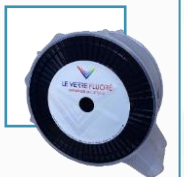


Applications

- Mid-IR spectroscopy
- Flexible IR pyrometry
- Flexible IR-Imaging systems
- Power delivery for Quantum Cascade Lasers

All CIR fibers are available as *fiber patch cables*

CUSTOMIZE your protective tubing and connectors



Protective tubing

- Peek (130 mm min. bending radius)
- Metal PVC coated (80 mm min. bending radius)

Connectors

- SMA 905, FC/PC, FC/APC

