

LMA-8

Endlessly Single-Mode 8 μm Core Fiber

- Strictly single-mode at all wavelengths
- Low fiber loss
- Radiation hard pure silica fiber
- Wavelength independent MFD
- Easy alignment
- Optional connectors and beam-expansion

This single-mode fiber is optimized to exhibit low loss across the widest possible wavelength region from 400 nm to above 2000 nm while keeping an almost constant mode field diameter.

The fiber is endlessly single-mode (i.e. it has no higher order mode cut-off) and, therefore, delivers pristine mode quality at all wavelengths.

The LMA-8 has a standard 125 μm outer diameter and is compatible with all common fiber tools.

The fiber is available with hermetically sealed ends and FC/PC connectors. For a connectorized fiber, we can customize the amount of fiber end beam expansion.

Applications

- Single-mode delivery and pigtailed
- RGB transmission
- Mode filtering
- Short pulse delivery

Physical properties

Material	Pure silica
Cladding diameter	125 \pm 5 μm
Coating diameter	245 \pm 10 μm
Coating material	Acrylate
Core diameter	8.5 \pm 0.3 μm

Optical properties

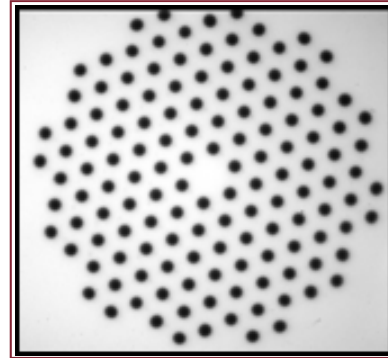
Attenuation @ 532 nm	< 30 dB/km
Attenuation @ 635 nm	< 10 dB/km
Attenuation @ 1064 nm	< 5 dB/km
Attenuation @ 1383 nm	< 20 dB/km
Attenuation @ 1550 nm	< 2 dB/km
Cut-off wavelength	None
Mode field diameter	7.0 \pm 1.0 μm
Numerical aperture @ 450 nm	0.059 \pm 0.01
Numerical aperture @ 635 nm	0.083 \pm 0.01



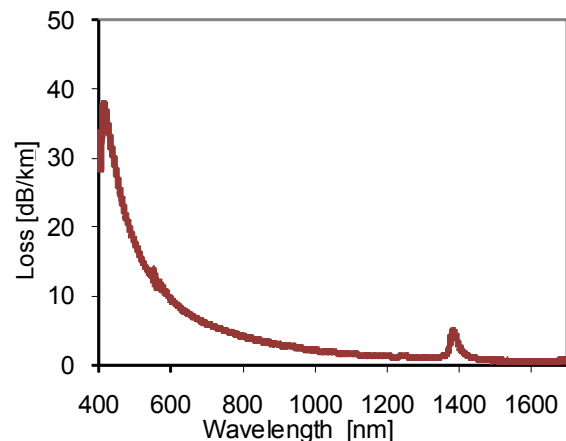
Single Mode



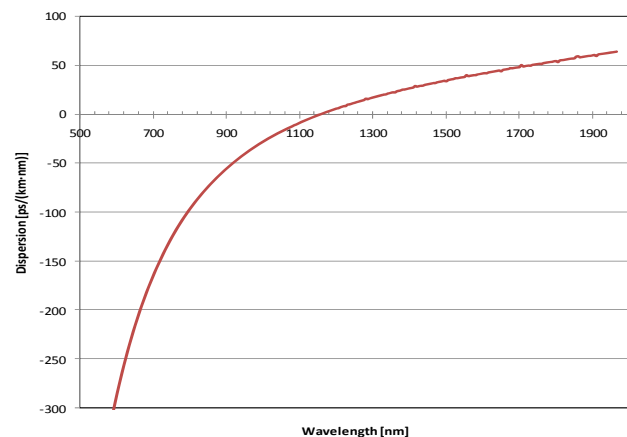
Large Mode-area



Typical measured spectral attenuation



Typical dispersion



LMA-8-100409