

# LMA-15

*Endlessly single-mode 15  $\mu\text{m}$  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 large mode area fiber combines a large effective mode field area ( $\sim 125 \mu\text{m}^2$ ) and low loss to allow high power delivery without nonlinear effects or material damage.

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 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.

This product is also available in a polarization-maintaining version as the LMA-PM-15.

## Applications

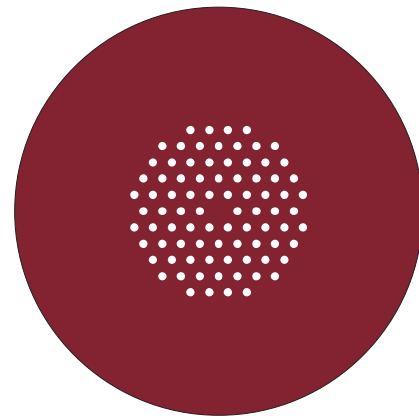
- Single-mode high power delivery
- Mode filtering
- Single-mode pigtailling
- Short pulse delivery

## Physical properties

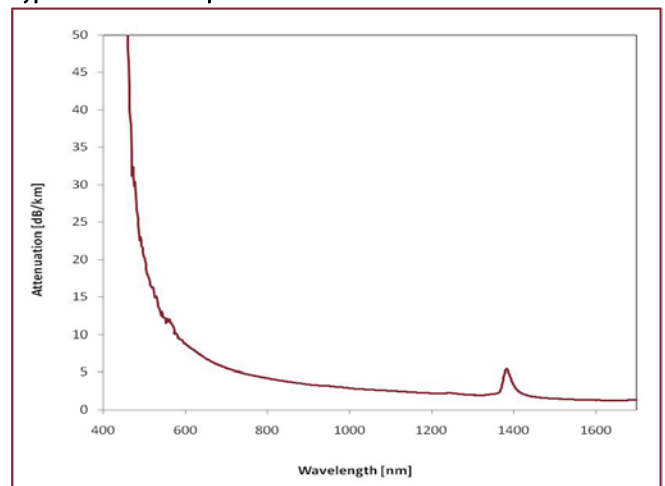
Signal core diameter	$15 \pm 0.5 \mu\text{m}$
Outer cladding diameter, OD	$230 \pm 5 \mu\text{m}$
Coating diameter	$350 \pm 10 \mu\text{m}$
Core and cladding material	Pure silica
Coating material, single layer	Acrylate

## Optical properties

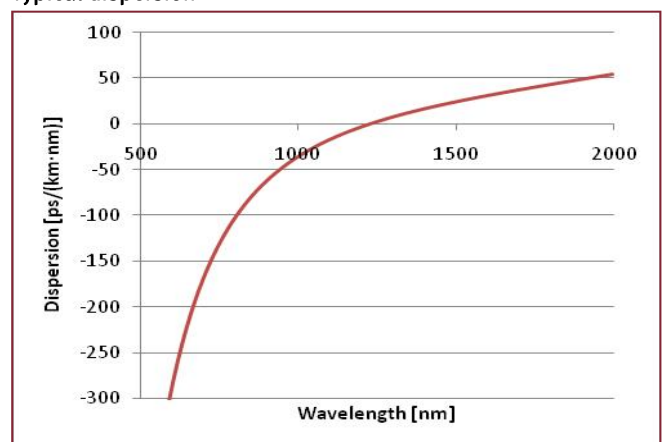
Mode properties	Single mode
Attenuation @ 532 nm	$< 30 \text{ dB/km}$
Attenuation @ 780 nm	$< 10 \text{ dB/km}$
Mode field diameter @532 nm	$12.5 \pm 1.5 \mu\text{m}$
Mode field diameter @780 nm	$12.5 \pm 1.5 \mu\text{m}$
Numerical aperture @ 532 nm	$\sim 0.04$
Numerical aperture @ 780 nm	$\sim 0.05$



Typical measured spectral attenuation



Typical dispersion



LMA-15-100409