

LMA-25

Single-Mode 25 μ m Core Fiber



- Low fiber loss from 800 to 1700 nm
- Single-mode at all wavelengths
- Radiation hard pure silica fiber
- High threshold power for nonlinear effects
- Wavelength independent MFD

This single-mode large mode area fiber combines a large effective mode field area ($\sim 265 \mu\text{m}^2$) 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 delivers pristine mode quality at all wavelengths.

Optical properties

Single mode cut-off wavelength*	None
Attenuation @ 1064 nm	< 5 dB/km
Attenuation @ 1550 nm	< 2 dB/km
Mode field diameter @ 780nm ($1/e^2$)	$20.6 \pm 0.5 \mu\text{m}$
Mode field diameter @ 1064 nm ($1/e^2$)	$20.9 \pm 0.5 \mu\text{m}$
NA @ 1064 nm (5%)	0.045 ± 0.02

Physical properties

Core diameter	$25.1 \pm 0.5 \mu\text{m}$
Outer cladding diameter, OD	$258 \pm 5 \mu\text{m}$
Coating diameter	$410 \pm 10 \mu\text{m}$
Core and cladding material	Pure silica
Coating material, single layer	Acrylate
Coating concentricity	$< 10 \mu\text{m}$
Proof test level	0.33 %

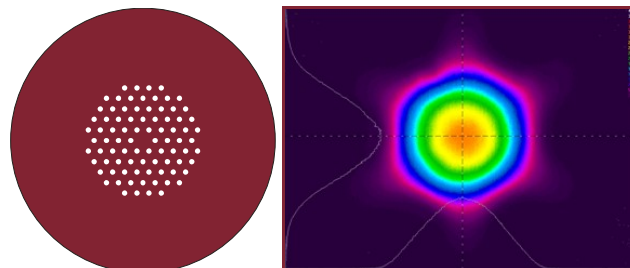
Standard interfacing options

FC/PC connector	0.0 ± 0.5 deg angle
FC/APC connector	8.0 ± 0.5 deg angle
SMA 905	0.0 or 5.0 ± 0.5 deg angle
Collapse and cleave	0.0 ± 0.5 deg angle

All interfaces are provided with a $150 \pm 25 \mu\text{m}$ sealing length of the PCF structure.

Please contact us for other custom interfacing options.

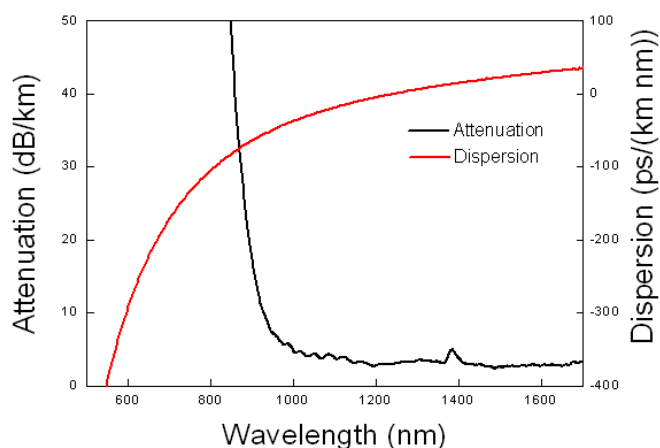
* TIA-455-80-C standard



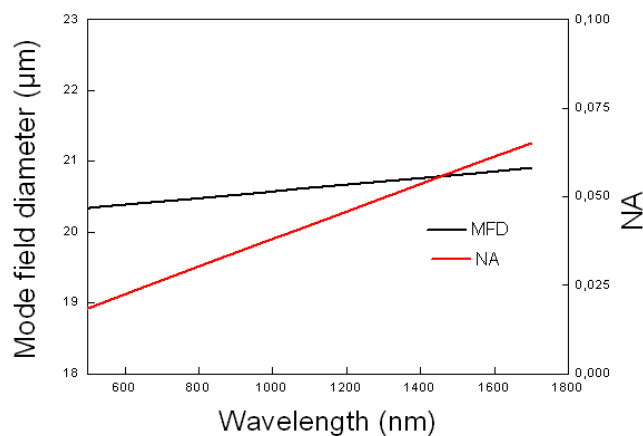
Applications

- Single-mode high power delivery
- Multi-wavelength transmission
- Mode filtering
- Single-mode pigtailed
- Short pulse delivery

Typical measured spectral attenuation



Typical measured NA and MFD



LMA-25-111222