

LMA-20

Single-mode 20 μm core fiber

- Low fiber loss from 600 to 1700 nm
- Single mode at all wavelengths
- High threshold power for nonlinear effects
- Radiation hard pure silica fiber
- Wavelength independent MFD

This single-mode large mode area fiber combines a large effective mode field area ($\sim 215 \mu\text{m}^2$) 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 excellent mode quality at all wavelengths.

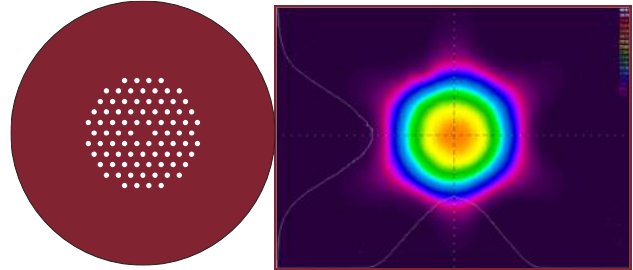
Optical properties	
Single mode cut-off wavelength*	None
Attenuation @ 632 nm	< 30 dB/km
Attenuation @ 780 nm	< 10 dB/km
Attenuation @ 1064 nm	< 8 dB/km
Mode field diameter @ 780nm ($1/e^2$)	$16.4 \pm 1.5 \mu\text{m}$
Mode field diameter @ 1064 nm ($1/e^2$)	$16.5 \pm 1.5 \mu\text{m}$
NA @ 1064 nm (5%)	0.06 ± 0.02
Physical properties	
Core diameter	$19.9 \pm 1 \mu\text{m}$
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
Coating concentricity	< 10 μm
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
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.

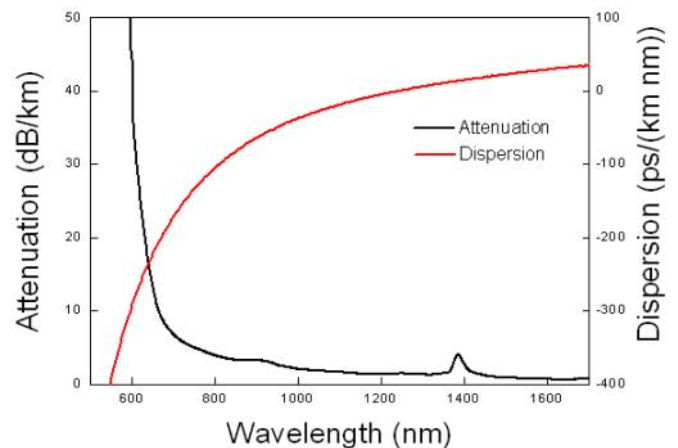
* TIA-455-80-C standard



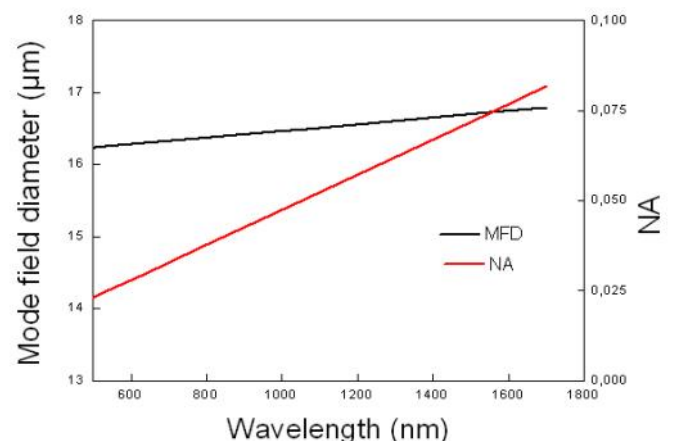
Applications

- Single-mode high power delivery
- Multi-wavelength transmission
- Mode filtering
- Single-mode pigtailling

Typical spectral attenuation and dispersion



Typical NA and Mode field diameter



LMA-20-v1-141212