

LMA-PM-15

Single mode 15 μm polarization-maintaining fiber



- Low loss fiber from 500 to 1700 nm
- Single mode at all wavelengths
- Polarization Maintaining
- Radiation hard pure silica fiber
- Wavelength independent MFD

This polarization-maintaining single-mode fiber is optimized to exhibit low loss from 600 nm to 1700 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 delivers excellent mode quality at all wavelengths.

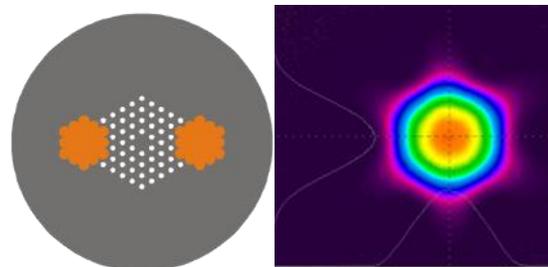
This product is also available in a non polarization-maintaining version as the LMA-15

Optical properties	
Single mode cut-off wavelength*	None
Attenuation @ 1064 nm	< 10 dB/km
Mode field diameter @ 532 nm ($1/e^2$)	$12.2 \pm 1.5 \mu\text{m}$
Mode field diameter @ 1064 nm ($1/e^2$)	$12.6 \pm 1.5 \mu\text{m}$
NA @ 532 nm (5%)	0.04 ± 0.02
NA @ 1064 nm (5%)	0.07 ± 0.02
Birefringence Δn @ 1064 nm	$\geq 1.3 \cdot 10^{-4}$
Polarization Extinction Ratio**	$\geq 18 \text{ dB}$
Physical properties	
Core diameter	$14.8 \pm 0.8 \mu\text{m}$
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-Cladding concent. error	< 10 μm
Proof test level	0.33 %
Standard interfacing options	
FC/PC PM connector	$0.0 \pm 0.5 \text{ deg angle}$
FC/APC PMconnector	$8.0 \pm 0.5 \text{ deg angle}$
SMA 905	$0.0 \text{ or } 5.0 \pm 0.5 \text{ deg angle}$
Collapse and cleave	$0.0 \pm 0.5 \text{ deg angle}$

All interfaces are provided with a $150 \pm 25 \mu\text{m}$ sealing length of the PCF structure. PM connectors are keyed to the slow axis. Please contact us for other custom interfacing options.

* TIA-455-80-C standard

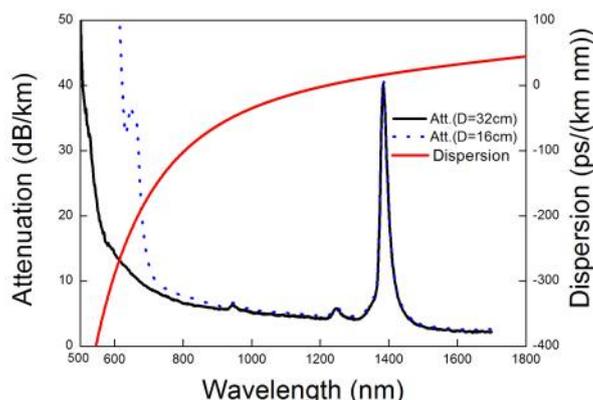
** AKA PXtalk on a 2 m sample



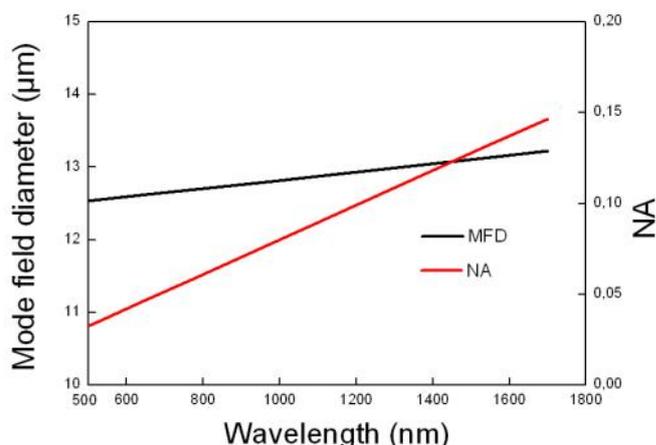
Applications

- Single-mode PM short wavelength delivery
- Multi-wavelength transmission
- Mode filtering
- Single-mode PM pigtailed
- Short pulse delivery

Typical spectral attenuation and dispersion



Typical spectral NA and MFD



LMA-PM-15-170222