

LMA-PM-10

Single-mode 10 μm polarization-maintaining fiber

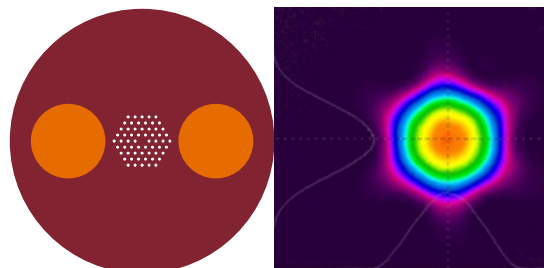


- Low loss fiber from 500 to 1700 nm
- Single mode at all wavelengths
- Polarization Maintaining
- Radiation hard pure silica fiber
- Wavelength independent MFD

This polarization-maintaining single-mode fiber is optimized to exhibit low loss from 500 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.

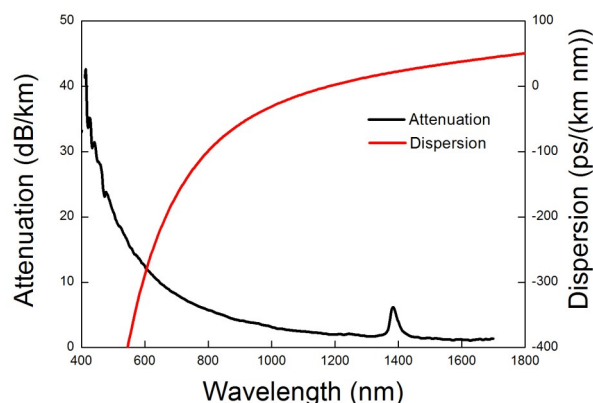
This product is also available in a non polarization-maintaining version as the LMA-10



Applications

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

Typical spectral attenuation and dispersion



Optical properties

| | |
|---|---------------------------|
| Single mode cut-off wavelength* | None |
| Attenuation @ 532 nm** | < 25 dB/km |
| Attenuation @ 632 nm | < 15 dB/km |
| Attenuation @ 1064 nm | < 5 dB/km |
| Mode field diameter @ 532 nm ($1/e^2$) | $8.4 \pm 1.0 \mu\text{m}$ |
| Mode field diameter @ 1064 nm ($1/e^2$) | $8.6 \pm 1.0 \mu\text{m}$ |
| NA @ 1064 nm (5%) | 0.12 ± 0.02 |
| Birefringence Δn @ 1064 nm | $1.4 \cdot 10^{-4}$ |
| Polarization Extinction Ratio*** | > 18 dB |

Physical properties

| | |
|---------------------------------|----------------------------|
| Core diameter | $10.0 \pm 0.5 \mu\text{m}$ |
| 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 |
| Coating-Cladding concent. error | < 10 μm |
| Proof test level | 0.33 % |

Standard interfacing options

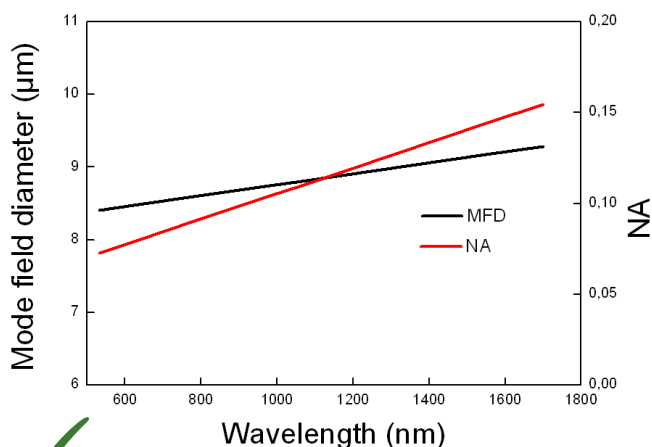
| | |
|---------------------|--------------------------------|
| FC/PC PM connector | 0.0 ± 0.5 deg angle |
| FC/APC PMconnector | 8.0 ± 0.5 deg angle |
| SMA 905 | 0.0 or 5.0 ± 0.5 deg angle |
| Collapse and cleave | 0.0 ± 0.5 deg angle |

All interfaces are provided with a $75 \pm 25 \mu\text{m}$ 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
** 16 cm bend diameter

*** AKA PXtalk on a 2 m sample

Typical measured NA and MFD



LMA-PM-10-v1-130417