NKT Photonics
the power of light

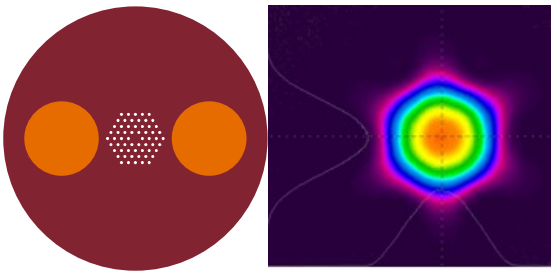
Crystal Fibre • *aero*LASE • Koheras • SuperK

LMA-PM-5

Single Mode Large Mode-area

Single-mode 5 µm core polarization-maintaining fiber

- Low loss fiber from 400 to 1200 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 400 nm to 1200 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.

The fiber has a standard 125 µm outer diameter and is compatible with all common fiber tools. This product is also available in a non polarization-maintaining version as the LMA-5.

Optical properties	
Single mode cut-off wavelength*	None
Attenuation @ 532 nm**	‹ 40 dB/km
Attenuation @ 632 nm	‹ 20 dB/km
Attenuation @ 1064 nm	‹ 7 dB/km
Mode field diameter @ 532 nm (1/e²)	4.2 ± 0.5 µm
Mode field diameter @ 1064 nm (1/e²)	4.4 ± 0.5 µm
NA @ 1064 nm (5%)	0.20 (typical)
Birefringence Δn @ 1064 nm	≥ $1.5 \cdot 10^{-4}$
Polarization Extinction Ratio***	≥ 18 dB
Physical properties	
Core diameter	5.0 ± 0.5 µm
Outer cladding diameter, OD	125 ± 2 µm
Coating diameter	245 ± 10 µm
Core and cladding material	Pure silica
Coating material, single layer	Acrylate
Coating-Cladding concent. error	‹ 10 µm
Proof test level	0.5 %
Standard interfacing options	
FC/PC PM connector	0.0 ± 0.5 deg angle
FC/APC PM connector	8.0 ± 0.5 deg angle

All interfaces are provided with a 75 ± 25 µm sealing length of the PCF structure. PM connectors are keyed to the slow axis.

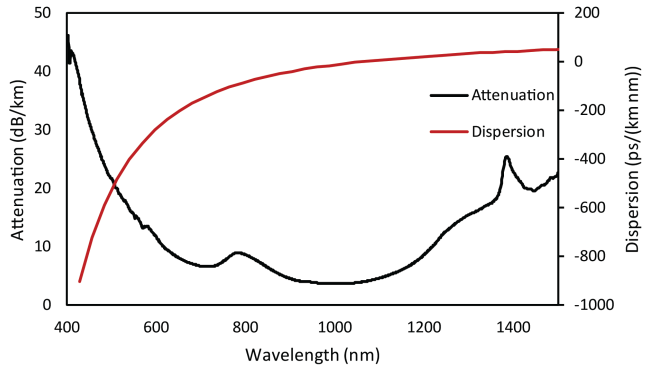
Please contact us for other custom interfacing options.

* TIA-455-80-C standard
** 16 cm bend diameter
*** AKA PXtalk on a 2 m sample

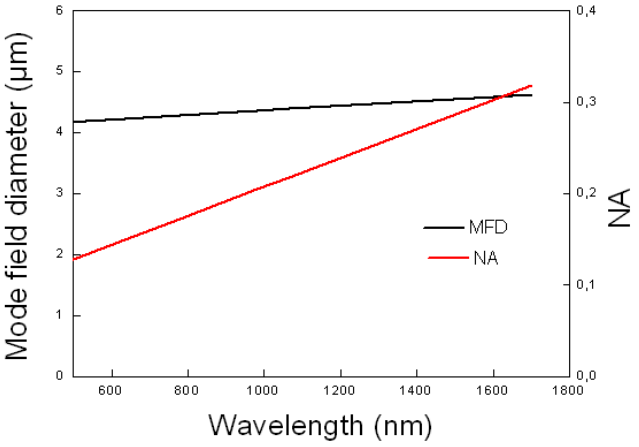
Applications

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

Typical spectral attenuation and dispersion



Typical NA and MFD



RoHS 2002/95/EC

LMA-PM-5-190613

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