

PM-1550 Single-mode, polarization-maintaining fiber

OO

SINGLE-MODE, PM FIBER WITH SHORT BEAT LENGTH

Ideal for interferrometers

The PM-1550 has a strong form-birefringence and is optimized to create a short beat length between the polarizations.

It has a reduced bend-coupling between polarization states, an improved polarization extinction ratio, and is 30 times less temperature sensitive than conventional high-birefringence fiber.

Applications

- Sensors
- Gyroscopes
- Interferrometers



Low loss and constant mode field diameter

The fibers present a low-loss in the 600 to 1700 nm window .

Standard 125 μm outer diameter

The fiber has a standard 125 μm outer diameter and is compatible with all common fiber tools.

Features

- Low-loss fiber from 600 to 1700 nm
- Polarization-maintaining
- Single-mode at all wavelengths
- Radiation hard pure silica fiber
- Wavelength independent mode-field diameter

SPECIFICATIONS

Optical

Single-mode	Yes
Attenuation [dB/km]	≤3
Mode-field diameter, 1/e² [µm]	5.5 / 3.8 ± 0.8
Mode-field ellipticity	≈ 1.5
Birefringence	≥ 4e-4
PER, typical [dB]	> 18
Chromatic dispersion [ps/nm/km]	55 ± 10

Mechanical

Core diameter [µm]	6.0/4.4 ± 0.5
Outer cladding diameter, OD [µm]	125 ± 5
Coating diameter [µm]	245 ± 10
Core and cladding material	Pure silica
Coating material, single-layer	Acrylate
Coating concentricity [µm]	< 10
Proof test level [%]	0.5

All NKT Photonics fiber products are produced under our quality management system certified in accordance with the ISO 9001:2015 standard.