# Photonic Crystal Fiber

## PM-125-03 PCF

**PM photonic crystal fiber**

### DESCRIPTION

This single-mode polarisation maintaining photonic crystal fiber combines a high birefringence with a single material, silica.

### ADVANTAGES

- Single mode operation
- Single material, silica
- Temperature insensitive
- Low loss around 1550nm and 1310nm
- Anti-radiation

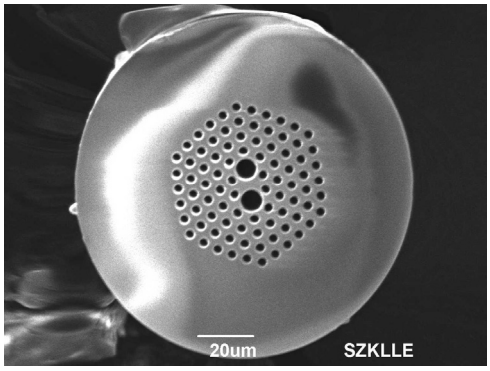
### APPLICATIONS

- Sensors
- Gyroscopes
- Interferometers

### OPTICAL PROPERTIES

| | |
|---|---|
| Cut-off wavelength: | < 1000nm |
| Attenuation @ 1550 nm: | < 3 dB/km |
| Attenuation @ 1310 nm: | < 4 dB/km |
| Beat Length: | < 2.0 mm@1310nm |
| | < 3.0 mm@1550nm |
| Cross-talk: | <-28dB/100m@1550nm |

### CROSS SECTION PHOTOGRAPH SAMPLE




### PHYSICAL PROPERTIES

| | | |
|---|---|---|
| Material: | | Pure silica |
| Core diameter*: | X axis | 4.0μm |
| | Y axis | 7.5μm |
| Cladding diameter: | | 125 ± 3 μm |
| Coating diameter: | | 245 ± 5μm |
| Coating material: | | Acrylate |
| Available length: | | up to 1km |

*

X axis: The direction along dual big air holes

Y axis: The vertical direction of Y axis

### TYPICAL SPECTRAL ATTENUATION