

# Photosensitive Single-Mode Fiber

## IXF-PHO-CMF-PM

IXF-PHO-CMF-PM is designed to suppress the cladding modes losses (CMF: Cladding Mode Free). The fiber has a mode field diameter similar to most standard PMF with a relatively low photosensitivity that can be enhanced with Hydrogen loading. The Main benefit is the cladding modes suppression associated with a low phase noise, making it suitable for gratings for compensation of large dispersion.

It is the ideal fiber to make high reflectivity chirped FBG with bandwidth greater than 2 nm.



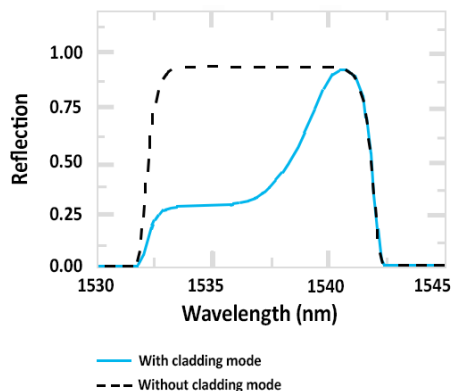
### FEATURES & BENEFITS

- Unique PM panda CMF fiber
- Excellent cladding mode suppression
- Mode field diameter matched to SMF

### APPLICATIONS

- Bi-directional high reflectivity broadband filter (FWHM > 2nm)
- Bi-directional interrogation of FBG array
- Chirped FBG with negative dispersion

Input pigtail	D <sub>2</sub>
Short wavelength side	Positive dispersion
Long wavelength side	Negative dispersion



*Reflection spectrum of a Broadband Filter using a standard fiber and a CMF Fibre*

# IXF-PHO-CMF-PM TECHNICAL SPECIFICATIONS

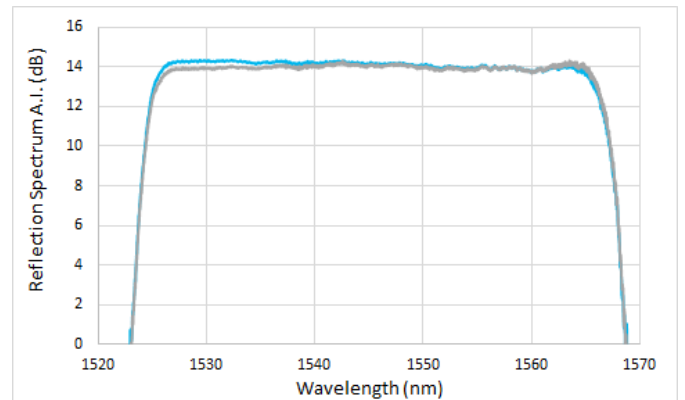
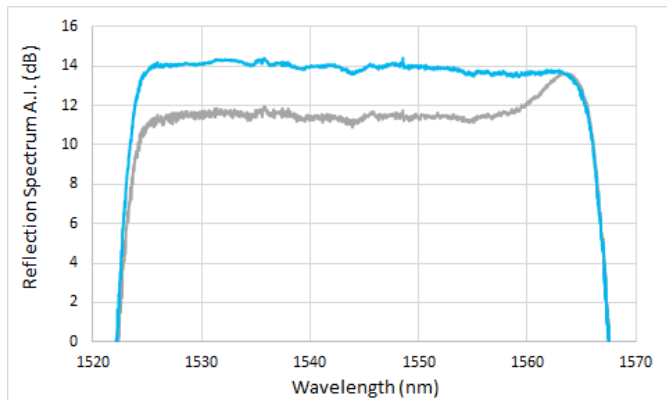
## Parameters

Core NA	0.13 ± 0.01
Attenuation @ 1550 nm	< 0.5 dB/km
Cutoff wavelength	< 1450 nm
MFD @ 1550 nm	10.5 ± 1 μm
Core diameter	8.2 ± 0.5 μm
Fiber type	Panda
Group birefringence	> 1 x 10 <sup>-4</sup>
Cladding/coating conc error	< 15 μm
Outside cladding diameter	124.5 ± 1
Coating diameter	245 ± 15

## Design parameters

Splice loss to SMF	< 0.07 dB
Cladding modes (FBC > 30dB)	< 0.2 dB
Static fatigue corrosion	n > 20
Tensile strength	> 3.5 GPa
Proof test level	100 kpsi

*Specifications are subject to change without notice*



*FBG Reflectivity with regular PM fiber (grey line) and ixblue CMF-PM (blue line) using the long WL input (left), right WL input (right)*