



Wavelength 1.5 to 1.65  $\mu\text{m}$

## Multicore | Fibers

Based on our original telecom experience of making Twincore fibers for the Add/drop multiplexers, iXblue in collaboration with Photonics Bretagne is now offering Multicore fibers for shape and temperature/strain sensing.

Multicore fibers can be used in a large variety of sensing application where the need to reduce the global footprint is also required for cables and connectors.

Multicore fibers have photosensitive cores, allowing Fiber Bragg Grating (FBG) inscription and can be tailored to match the exact customer specifications.

### Key Features

- Multiple cores
- Shape sensing
- Photosensitive core for FBG inscription
- Suitable when reduced space is required
- Custom designs possible from 4 to 12 cores
- Active & rare earth doped multicore fiber on request

### Applications

- Shape ensings
- Temperature and Strain Sensors
- Telecoms



## Main Specifications of Single Mode Fiber

Product Name	Core spacing ( $\mu\text{m}$ )	Core NA	Cladding diameter ( $\mu\text{m}$ )	Operating wavelength (nm)	Cutoff wavelength (nm)	MFD ( $\mu\text{m}$ )	Coating diameter ( $\mu\text{m}$ )	Core position shape
IXF-MC-7-SM-1550	35 +/- 0.5	0.21 +/- 0.02	125 +/- 1	1500 - 1650	1300 - 1520	6 +/- 0.5	245 +/- 15	Hexagon & Center

## Fan-out

Product Name	Core NA	Insertion loss (dB)	Operating wavelength (nm)	Polarization dependent loss (dB)	Number of core	Connectorization
IXC-FAN-7-SM-1550	0.20 +/- 0.01	< 1.5	1500 - 1650	< 0.1	7	FC/APC

## Main Specifications of Double Clad Fiber

Product Name	Core diameter ( $\mu\text{m}$ )	Core NA	Cladding diameter ( $\mu\text{m}$ )	Coating diameter ( $\mu\text{m}$ )	Clad absorption @915nm (dB/m)	Core absorption @1536nm (dB/m)	MFD
IXF-ZCF-MC12-EY-6	6 +/- 0.5	0.19	187.5 +/- 2.5	355 +/- 15	3.5 +/- 0.5	40 +/- 10	6.5 +/- 0.5
IXF-ZCF-MC12-PAS-6	6 +/- 0.5	0.19	187.5 +/- 2.5	355 +/- 15	-	-	6.5 +/- 0.5

