



These Ge-doped silica multicore fibres integrates 7 photosensitive cores (6 hexagon-arranged cores around a center core) which make them particularly suited for Bragg grating inscription and sensing application (Shape, Strain, Temperature...) in the C-band. On-demand custom fiber design possible: core numbers, core location and composition.

Main characteristics

- Photosensitive core designs for FBG inscription
- Excellent fibre geometry control

Applications

- Numerous applications in sensing such as structural health monitoring, shape sensing
- Data centers oriented applications in active optical cables and/or silicon photonics technology

Fibre specifications

Fibre type	MCF7-7-125
Optical parameters	
Operating Wavelength (nm)	> 1520
Core Numerical Aperture (NA)	0.20 +/- 0.01
LP ₁₁ cut-off wavelength (nm)	1495
Inter-Core Effective Index Difference	< 3.5 × 10 ⁻⁴
Mode field diameter @ 1550 nm (μm)	6.5 +/- 0.1
Background loss @ 1550 nm (dB/km)	< 2
Cross-Talk (dB/10 km)	-60
Physical/Material parameters	
Core dopant	Germanium
Design type	Step Index
Number of cores	7
Core geometry	6 cores on a hexagon arranged around a center core
Core spacing (μm)	35.0 +/- 0.3
Core Concentricity Error (μm)	< 0.3
Core Diameter (μm)	5
Cladding Diameter (μm)	125 +/- 1
Coating Outside Diameter (μm)	245 +/- 3
Coating Concentricity Error (mm)	5
Coating Type	Dual coat high index acrylate

2D Fibre index profile

