

Step Index Multi-mode Fibre (SIMM)

YOFC silica-cladding multimode fibres (preforms) with step index profile are comprehensively optimized at both 850nm and 1300nm operating wavelengths. At both wavelengths, extremely low attenuation and high bandwidth could be achieved. To satisfy the demand of client to the most extent, a series of silica-cladding step index multimode fibres can be customized with different fibre designs, including core diameter, cladding diameter, fibre diameter and NA.

YOFC fibres are manufactured with the advanced Plasma Activated Chemical Vapor Deposition (PCVD) process. Due to the inherent advantages of the process, YOFC fibres have extremely precise refractive index profiles (RIPs) to provide excellent geometrical, optical, environmental and mechanical properties.

Customization Information

- Flexible Numerical Aperture (NA): 0.10~0.34
- Flexible Core-Cladding Diameter Ratio (CCDR): 1.05~1.4
- Core Diameter: 40µm-800µm
- High strength fibre
- Customized Preform and Fluorine doped Substrate Tube
- Silicone or Polyimide coating is available to achieve high temperature fibre
- Tight buffer with diameter 500µm or 900µm is available. PVC, ETFE and Hytrel are provided for the tight buffer material

Characteristics

- High coupling efficiency to LED and laser sources
- High power transmission
- Good stripping performance
- Low loss broad spectrum application, 275~2100nm

Application

- Fibre sensor and laser transmission
- Data communications, local area networks and CATV
- Medical apparatus
- Optical devices and connectors

Specifications-1

Fibre Type	SI 40/125-22/250	SI 100/140-22/250	SI 105/125-15/250	SI 105/125-22/250	SI 110/125-20/250	
Part No.	SI2014-E	SI2014-H	SI2012-J	SI2014-D	SI2013-A	
Optical Properties						
Numerical Aperture	0.22±0.02	0.22±0.02	0.15±0.02	0.22±0.02	0.20±0.02	
Attenuation	@850nm (dB/km)	≤3.0	≤3.0	≤8.0	≤4.0	≤8.0
	@1300nm(dB/km)	≤2.0	≤1.2	≤3.0	≤2.0	≤3.0
Geometrical Properties						
Core Diameter (µm)	40.0±2.0	100.0±3.0	105.0±3.0	105.0±3.0	110.0±3.0	
Cladding Diameter (µm)	125.0±2.0	140.0±3.0	125.0±2.0	125.0±2.0	125.0±2.0	
Coating Diameter (µm)	250.0±10.0	250.0±10.0	250.0±10.0	250.0±10.0	250.0±10.0	
Core Concentricity Error (µm)	≤3.0	≤3.0	≤3.0	≤3.0	≤3.0	
Core Non-circularity (%)	≤3.0	≤3.0	≤3.0	≤3.0	≤3.0	
Cladding Non-circularity (%)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	
Material Composition						
Core	Pure Silica Glass or Ge/F Doped Silica Glass					
Cladding	Pure Silica Glass or F Doped Silica Glass					
Coating	Dual-layer UV-Acrylate					
Mechanical Properties						
Proof Test Level (kpsi)	100	100	100	100	100	
Spool Length (km)	Customized spool					

Specifications-2

Fibre Type	SI 200/220-22/500	SI 200/240-22/500	SI 400/440-22/730	SI 600/660-22/960	SI 800/840-22/1100E
Part No.	SI2024-P	SI2014-Q	SI2024-G	SI2024-A	SI2523-B
Optical Properties					
Numerical Aperture	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Geometrical Properties					
Core Diameter (µm)	200.0±5.0	200.0±5.0	400.0±8.0	600.0±10.0	800.0±10.0
Cladding Diameter (µm)	220.0±5.0	240.0±5.0	440.0±8.0	660.0±10.0	840.0±10.0
Coating Diameter (µm)	500.0±20.0	500.0±20.0	730.0±30.0	960.0±30.0	1100.0±50.0
Core Concentricity Error (µm)	≤3.0	≤3.0	≤3.0	≤3.0	≤3.0
Material Composition					
Core	Pure Silica Glass or Ge/F Doped Silica Glass				
Cladding	Pure Silica Glass or F Doped Silica Glass				
Coating	Dual-layer UV-Acrylate or ETFE				
Mechanical Properties					
Proof Test Level (kpsi)	100	100	100	100	100
Spool Length (km)	Customized spool				