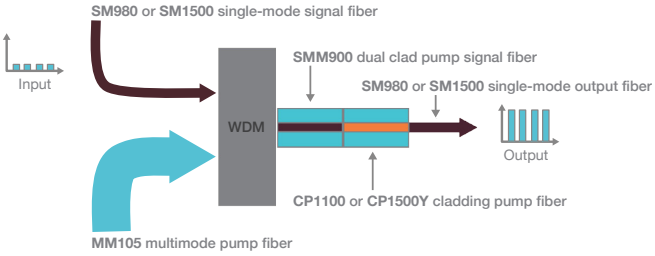
LARGE CORE FIBER

Fibercore's Large Core Fiber is a pure silica core/fluorinated silica clad multimode (MM) fiber.



The relatively large core diameter makes this fiber ideal for pigtailing high power, 940nm multimode diode lasers used to pump Passive Optical Network (PON)/FTTx amplifiers. This core diameter makes the fiber fully compatible with Fibercore's range of cladding pump fiber products, minimizing optical connection losses and maximizing optical conversion efficiency.

Fibers within the Fibercore cladding pump range include:

- Dual Clad Erbium/Ytterbium Doped Fiber (CP1500Y): All-silica Er-Yb co-doped fiber for high power PON/FTTx amplifiers
- Dual Clad Ytterbium Doped Fiber (CP1100): All-silica Yb doped fiber for high reliability fiber lasers
- Passive Dual Clad Fiber (SMM900): Cladding pump component fiber for Isolating Wavelength Division Multiplexer (CP-IWDM) fabrication

These fibers can be seen working together in the diagram below, of a typical high power amplifier.

FEATURES

Advantages

- All silica design
- No recoating required
- Stable in humid environments

Typical Applications:

- Telecoms
- Erbium Doped Fiber Amplifier (EDFA)
- Cable Television (CATV)
- Fiber Laser
- Biomedical Illumination

Product Variants

- MMSC(102/125)0.26
  Multimode pure silica core pump fiber with 102µm core
- MMSC(105/125)0.22
  Multimode pure silica core pump fiber with 105µm core
- MMSC(106.5/125)0.22
  Multimode pure silica core pump fiber with 106.5µm core
- MMSC(200/220)0.22
  Multimode pure silica core with 220µm core
- MMSC(300/330)0.22
  Multimode pure silica core with 330µm core
- MMSC(400/440)0.22
  Multimode pure silica core with 440µm core
- MMSC(600/660)0.22
  Multimode pure silica core with 660µm core

SPECIFICATIONS

Pure silica core with acrylate

	MMSC(102/125)0.26	MMSC(105/125)0.22	MMSC(106.5/125)0.22
Operating Wavelength (nm)	500 - 1600		
OH Level	Low (High OH for UV wavelengths also available)		
Numerical Aperture	0.22 - 0.26	0.20 - 0.24	
Proof Test (%)	1 (100 kpsi)		
Core Composition	Silica		
Cladding Composition	Fluorosilicate		
Cladding Diameter (µm)	125 ± 1		
Coating Diameter (µm)	245 ± 7		245 ± 15
Core Diameter (µm)	102 ± 2	105 ± 2	106 ± 1.5
Coating Type	Acrylate		
Operating Temperature (°C)	-50 to +85		

Pure silica core with polyimide

	MMSC (200/220)0.22	MMSC (300/330)0.22	MMSC (400/440)0.22	MMSC (600/660)0.22
Operating Wavelength (nm)	500 - 1600			
OH Level	Low (High OH for UV wavelengths also available)			
Numerical Aperture	0.20 - 0.24			
Proof Test (%)	1 (100 kpsi)	0.7 (70 kpsi)		
Core Composition	Silica			
Cladding Composition	Fluorosilicate			
Cladding Diameter (µm)	220 ± 2	330 ± 3	440 ± 4	660 ± 7
Coating Diameter (µm)	Acrylate: 330 Polyimide: 240	Acrylate: 450 Polyimide: 370	Acrylate: 560 Polyimide: 480	Acrylate: 840 Polyimide: 710
Core Diameter (µm)	200 ± 4	300 ± 6	400 ± 8	600 ± 12
Coating Type	Acrylate Polyimide			
Operating Temperature (°C)	Acrylate: -55 to +150 Polyimide: -55 to +300			

Polyimide is rated to cryogenic and high temperatures - contact Fibercore for further information.

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OTHER GLASS DESIGN OPTIONS

- Graded Index Multimode (GIMM)
- Single-Mode (SM)
- Custom (available upon request)

OTHER COATING MATERIALS

- Silicone (available upon request)
- Dual Layer Acrylate (available upon request)

OPTIONAL BUFFERING MATERIALS

- Perfluoroalkoxy (PFA)
- Ethylene and tetrafluoroethylene (ETFE)
- Nylon

RELATED PRODUCTS

- Dual Clad Erbium/Ytterbium Doped Fiber
- All Silica Double Clad Fiber
- Isolating Wavelength Division Multiplexer

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