

Large Core Fiber Coupler (Multimode Fiber Optic Splitter)



FEATURES

- ✓ Monolithically-Fused Structure
- ✓ Wavelength-insensitive and Mode-insensitive
- ✓ Wide Operating Wavelength Range
- ✓ High Coupling Efficiency

APPLICATIONS

- Optical Fiber Amplifier
- Fiber Optic Sensor
- Fiber Laser
- Biomedicine

General Specifications of Large Core Fiber Coupler (Multimode Fiber Optic Splitter)

Configuration	1x2 ~ 1x32; 2x2 ~ 32x32
Operating Wavelength (nm)	190 ~ 2500 (Optional)
Transmission Efficiency	80% ~ 99.5%
Typical Uniformity	~10%
Fiber Core Diameter (μm)	100, 105, 200, 300, 400, 600, 800, 900, 1000, 1500; Others On Request
Numerical Aperture of Fiber	0.15, 0.22, 0.37, 0.5; Others on Request
Working Temperature (°C)	-20 ~ +70; Others on Request

Typical Specifications of Large Core Fiber Coupler (Multimode Fiber Optic Splitter) ①

Fiber Core/Cladding Diameter	105/125	105/125	200/220	200/220	200/230
Numerical Aperture (NA)	0.22	0.22	0.22	0.22	0.37
Port Configuration	1x7	1x16	1x3	1x7	1x2
Operating Wavelength (nm)	UV-VIS-NIR	UV-VIS-NIR	UV-VIS-NIR	UV-VIS-NIR	VIS-NIR
Transmission Efficiency	>90%	>90%	>90%	>90%	>90%
Split Ratio	13.0%~14.8%	5.8%~6.6%	31%~35%	12.5%~15.0%	47%~53%
Uniformity (dB)	<1.0dB	<1.0dB	<1.0dB	<1.2dB	<1.0dB
Working Temperature (°C)	-20 ~ +70	-20 ~ +70	-20 ~ +70	-20 ~ +70	-20 ~ +70
Package Size (mm)	Φ3.0*65	Φ3.0*65	Φ3.0*65	Φ3.0*65	Φ3.0*65
Package Type, Pigtail	Stainless Steel Tube, Bare Fiber (without jacket)				



Typical Specifications of Large Core Fiber Coupler (Multimode Fiber Optic Splitter) ②

Fiber Core/Cladding Diameter	400/430	400/440	400/440	600/630	600/630	600/630
Numerical Aperture (NA)	0.37	0.22	0.22	0.22	0.22	0.37
Port Configuration	1x2	1x4	1x7	1x2	1x8	1x2
Operating Wavelength (nm)	VIS-NIR	UV-VIS-NIR	UV-VIS-NIR	UV-VIS-NIR	UV-VIS-NIR	VIS-NIR
Transmission Efficiency	>90%	>90%	>90%	>90%	>85%	>90%
Split Ratio	47%~53%	22%~25%	12.5%~15.0%	47%~53%	10%~14%	47%~53%
Uniformity (dB)	<1.0dB	<1.0dB	<1.3dB	<1.0dB	<1.5dB	<1.0dB
Working Temperature (°C)	-20 ~ +70	-20 ~ +70	-20 ~ +70	-20 ~ +70	-20 ~ +70	-20 ~ +70
Package Size (mm)	Φ3.0*65	Φ3.0*65	/	Φ6.0*65	/	Φ3.0*65
Package Type, Pigtail	Stainless Steel Tube, Bare Fiber (without jacket)					

Notes:

1. The optical performances of the fiber couplers (without connectors) are measured with an overfilled-launch light source.
2. Different lasers and launching conditions may bring about changes in the test results.
3. Different split ratios are available on request.
4. Lfiber's large core fiber coupler (multimode fiber optic splitter) is wavelength-insensitive and mode-insensitive over a broad wavelength range. Also, it can be designed to have an optimum performance for specific wavelength range according to your applications. So please tell us the accurate operating wavelength range if possible.
5. The input and output fibers could be different, for instance, a 1×7 large core fiber coupler (multimode fiber optic splitter) may have one 200/220 μm input fiber and seven 105/125 μm output fibers. In this case, its transmission efficiency is as high as 90% and the splitting uniformity is less than 0.7 dB.
6. Please specify the operating power if the large core fiber coupler/splitter operates on a high-power continuous-wave (CW) laser, it may need a heat sink design for the package.
7. If a high-quality output beam (with fewer speckle hot spots and more uniform energy intensity profile) is needed, the large core fiber coupler can be integrated with Lfiber's **In-line Laser Speckle Reducer (Fiber Optical Beam Homogenizer)** to make a hybrid component. For more info, visit <https://www.lfiber.com/laser-speckle-reducer-beam-homogenizer/>
8. This large core fiber coupler/splitter is customizable and above specifications are subject to change without notice.
9. For product customization or special requirement, please contact our sales representative.

Ordering Information for Large Core Fiber Coupler (Multimode Fiber Optic Splitter)

	Port	Wavelength	Operating Power	Core/Cladding	Pigtail	Package	Fiber Length	Connector
Large Core Fiber Coupler (Splitter)	1x2	250~365nm	≤500mW	100/140	Bare Fiber	Steel Tube	0.50 m	None
	1x3	UV-VIS	≤1W	105/125	Cable	Box	1.00 m	SC/PC
	...	VIS-NIR	≤2W	200/220 (200/230)	Custom	Custom	Custom	FC/PC
	2x2	Custom	≤5W	400/440 (400/430)				ST
	...		≤10W	600/660 (600/630)				SMA905
	32x32		Custom	800/880 (800/830)				Custom
				900/950				
				1000/1100				
				1500/1650				
				Custom				

