

Focusing Module

This focusing module is convenient for optical coupling of semiconductor lasers (LD) and semiconductor optical amplifiers (SOA), and also optical coupling experiments of various waveguides in the optical communication wavelength band or in a range from near-infrared to visible wavelength region.

This module is designed to place a $\phi 2.5$ -mm tip as close as possible to the element.

Features

- Highly efficient LD light focus
- Highly efficient optical coupling to waveguides
- Small-sized for easy implementation
- Easy selection of specifications and options depending on applications



Various types of focusing modules are successfully developed to handle special magnification or wavelength.

Please refer to the following list for an introduction to some of the variations.

<p>- Built-In Isolator Type</p> <p>> Features</p>	<p>Fiber (PMF or SMF) Lens #1 Isolator Lens #2</p> <ul style="list-style-type: none"> - Primarily suitable for use in the communication bandwidth (1300 nm and 1550 nm) (Please contact us for other wavelengths.) - Capability to control reflection from fibers ends and elements - Polarization type and polarization-independent type are also available options.
<p>- Built-In Polarizer Type</p> <p>> Features</p>	<p>Fiber (PMF) Lens #1 Polarizer Lens #2</p> <ul style="list-style-type: none"> - Use in a range from visible region to the telecommunication band (Please specify a center wavelength to be used.) - Suitable for focusing to polarization-dependent elements
<p>- Built-In Rotating Linear Polarization Mechanism Type</p> <p>> Features</p>	<p>Fiber (PMF) Lens #1 Polarizer λ/4 Wave Plate Rotation Mechanism λ/4 Wave Plate Polarizer Lens #2</p> <ul style="list-style-type: none"> - Use in a range from visible region to the telecommunication band (Please specify a center wavelength to be used.) - Focusing of linearly polarized light with high extinction ratio in an arbitrary direction

Ordering Instructions

+Focusing Module

Order format: **CLMA - (1) - (2) - (3)(4) / (5) - (6) - (7)**

Order format example: CLMA-13-1.8-S9/S

(λ: 1310nm, Spot diameter: 1.8um, Fiber: DSF, Line type: φ0.9mm, Connector: SC/SPC)

*** Specifications may be changed without prior notice for product improvement.**

Typical Specifications

	(1) Wavelength	15: 1550 nm 13: 1310 nm 10: 1060 nm 98: 980 nm 85: 850 nm 78: 780 nm 65: 650 nm				
	Insertion Loss	≤ 0.8 dB (excluding adapter connection loss)				
	Reflection Attenuation Amount	≥ 50 dB (1.5 and 1.31 μm) ≥ 40 dB (near-infrared to visible ranges to warrant the design)				
Single-Mode System (1310 and 1550 nm)	(2) Spot Diameter (μm) *1	1.8	2.8	3.9	4.5	6.3
	/ W.D. (mm)	0.3	0.3	0.3	1.0	1.7
	(3) Optical Fiber	S: SMF P: PMF (L = 1.0 m)				
Dispersion Shift System (1550 nm)	(2) Spot Diameter (μm) *1	2.2	3.1	3.6	5.0	5.8
	/ W.D. (mm)	0.3	0.3	1.0	1.7	1.0
	(3) Optical Fiber	D: DSF (L = 1.0 m)				
Near-Infrared to Visible Ranges	(2) Spot Diameter (μm) *1	Please specify a spot diameter and a W.D. of your choice. We will consider your request to optimize our proposal.				
	/ W.D. (mm)					
	(3) Optical Fiber	We propose wavelength-suitable fibers.				
	(4) Line Type	3: φ3 mm PVC cords 9: φ0.9 mm core fibers				
	(5) Optical Connector	F: FC/SPC S: SC/SPC FA: FC/Angled PC SA: SC/Angled PC				
	(6) Extinction Ratio	20: ≤ 20 dB 25: ≤ 25 dB (only at the time of PMF selection)				
	(7) Isolator *2	Not Coded: None IA: Polarization Type Built-In ISO IB: Non-Polarization Type Built-In ISO				

***1 Spot diameter values are obtained based on a geometric optics calculation method.**

***2 Please contact us for different characteristics of built-in isolator type.**

***3 Appropriate fibers for each wavelength will be used.**