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Micro-Optic Fiber Optic Coupler

1x2, 2x2, single-mode, multi-mode, 450 nm to 2600nm

Product Description

The MOPC Series fiber optic coupler is based on micro-optic technology in a compact packaging structure. Micro-optic is more flexible than the fused approach, offering a broader operation wavelength band, high polarization extinction ratio for PM fiber and low polarization sensitivity for other fibers, intrinsic temperature stability, and for all types of fibers. The device is ideal for splitting or combining light with exceptional performance over a wide wavelength and temperature range. High power version is available. However, the cost is related to the tightness of the spec due to yield.



Performance Specifications

Parameters	Min	Max	Unit	
Coupling Ratio	1/99	50/50	%	
Wavelength	450	2600	nm	
Wavelength Bandwidth	±40	±200	nm	
Excess Loss*	1310-1550nm	≤0.7	dB	
	980-1060nm	≤0.9	dB	
	450-980nm	<1.1	dB	
Split Ratio Tolerance				
Split Ratio:50/50	± 3.8	± 3.8	± 3.8	%
Split Ratio:40/60	± 2.9	± 2.9	± 2.9	%
Split Ratio:30/70	± 1.5	± 1.5	± 1.5	%
Split Ratio:20/80	± 1.3	± 1.3	± 1.3	%
Split Ratio:10/90	± 1.1	± 1.1	± 1.1	%
Split Ratio: 5/95	± 0.8	± 0.8	± 0.8	%
Split Ratio: 1/99	± 0.5	± 0.5	± 0.5	%
Polarization Extinction (PM)	22	30	Ratio	
Directivity		> 55	dB	
Return Loss		> 55	dB	
Optical Power Handling **	0.05	5	W	
Operating Temperature		-40~85	°C	
Storage Temperature		-50~85	°C	
Package Dimension ***	1x2: (D)5.5x(L)35		mm	
	2x2: (D)5.5x(L)38			
	2/3mm Cable: (L)98x(W)16x(H)9			

* Without connector, each connector adds 0.3dB IL, 5dB RL, and 2dB RE increases

** Short wavelength has a lower power handling

**Other package options available on request

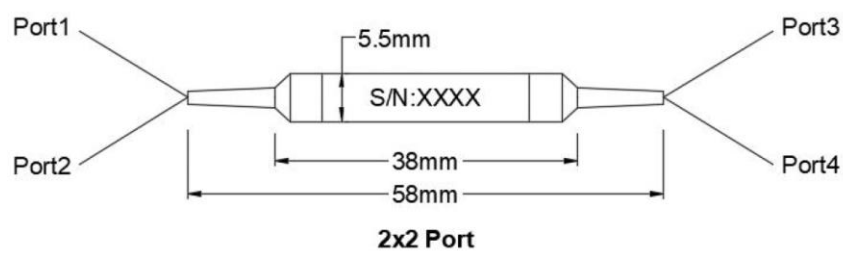
Features

- Low Loss
- High Reliability
- High Repeatability

Applications

- Instrumentation
- Sensor

Dimensions (Unit: mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information

Prefix	Wavelength	Optical Power*	Ratio	Port	Grade**	Fiber Type	Fiber Cover	Connector Type*
MOPC-	1250-1630 = F 1310 = 3 1550 = 5 980 = 9 1600 = 6 2000 = 2 1060 = 1 C+L = C Special=0	Regular = 1 High Power = 2 Special = 0	01/99 = 1 02/98 = 2 05/95 = 3 10/90 = 4 15/85 = 5 20/80 = 6 30/70 = 7 40/60 = 8 50/50 = 9 Special = 0	1x2 = 1 2x2 = 2	Regular = 1 Premium = 2 Special = 0	Select from below	250µm Coat = 1 900µm Tube = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0

* High power has endcaps that expand the beam inside the fiber. The power rating is related to the wavelength. The sorter is easier to damage.

**High Polarization Extinction Ratio PM coupler chooses 2.

Fiber Type Selection Table:

01	SMF-28	34	PM1550	71	GIF 50/125 µm
02	SMF-28e	35	PM1950	72	GIF 62.5 µm
03	Corning XB	36	PM1310	73	105/125 µm
04	SM450	37	PM400	74	FG105LCA
05	SM1950	38	PM480	75	FG50LGA
06	SM600	39	PM630	76	STP 50/125
07	Hi780	40	PM850		
08	SM800	41	PM980		
09	Hi980	42	PM780		
10	Hi1060	43	PM350		
11	Draka BBE	44			
12		45			
13		46			