Multi-Core Fiber Coupler

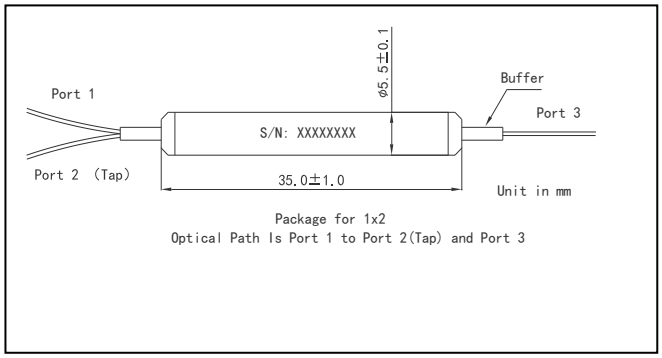
I&Optics' multicore fiber coupler can split any group of input light into two portions by any specified splitting ratio or mix two groups of input lights in one or two by given ratio. It features low excess loss, high signal density and broad band property due to our unique technology. It can be used in lasers, LiDARs, telecom, secret communications and R&D.

Specification

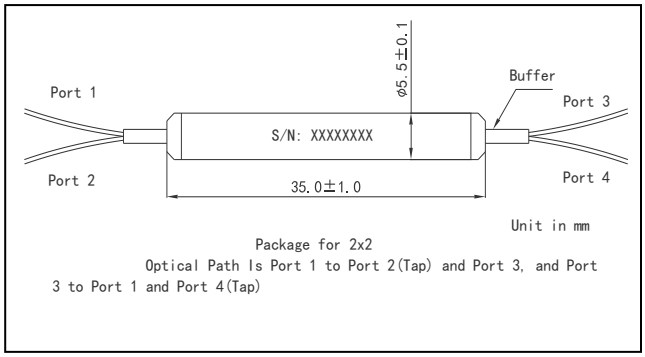
Parameter	Test Condition	Unit	Value	
Port Configuration	-	-	1x2	2x2
Inner Core Number	-	-	2, 4, 7, 8 or Specify	
Nominal Center Wavelength	-	nm	1310, 1550 or Specify	
Wavelength Range	-	nm	+/-40	
Max. Excess Loss	-	dB	1.0, Typ. 0.8	1.2, Typ. 1.0
Nominal Tap Ratio	at Tap Port	%	1.0+/-0.3, 2.0+/-0.5, 5.0+/-1.2, 10.0+/-3.0, 50	
Max. Polarization Dependent Loss	at 23℃	dB	0.2, Typ. 0.1	
Max. Uniformity	only for 50/50 Coupling Ratio	dB	0.7	0.9
Min. Directivity	Port 3 to Port 2 (1x2) or Port 1/(3) to Port 2/(4)	dB	45	
Min. Crosstalk	at 23℃	dB	45	
Min. Return Loss	at Center Wavelength	dB	50	
Max. Power Handling Rate	Continuous Wave	mW	300 / Core or Specify	
Fiber Type	-	-	Single Mode Multicore Fiber or Specify	
Max. Fiber Tensile Load	-	N	5	
Operating Temperature	-	℃	-5 to 70	
Operating Relative Humidity	Non-Condense	%	0 to 95	
Storage Temperature	-	℃	-40 to 85	
Storage Relative Humidity	Non-Condense	%	0 to 95	

Above values are for device without connectors. For device with connectors, IL will be 0.7dB higher and return loss will 5dB lower.
Integrated with isolator or / and WDM is available upon request

Package Dimensions



Package for 1x2
Optical Path Is Port 1 to Port 2(Tap) and Port 3



Package for 2x2
Optical Path Is Port 1 to Port 2(Tap) and Port 3, and Port 3 to Port 1 and Port 4(Tap)

Ordering Informations

SMCC-①-②-③-④-⑤-⑥-⑦-⑧

① - Center Wavelength
31 - 1310nm
55 - 1550nm
SS - Specify

② - Port Configuration
1 - 1x2
2 - 2x2

③ - Tap Ratio
01 - 1%
02 - 2%
05 - 5%
10 - 10%
50 - 50%
SS - Specify

④ - Fiber Type
S - Specify

⑤ - Connector Type on port 1/2/3/4
3 - SC/UPC
4 - SC/APC
5 - LC/UPC

⑥ - Fiber Jacket on Port 1/2/3/4
B - Bare Fiber
L - 900um Loose Tube

⑦ - Fiber Length
0.6 - 0.6m