

Ultra-Low Splitting Ratio SMF Fused Coupler



Specifications

Parameters	Unit	Values
Center Wavelength	nm	780, 850, 980, 1064, 1310, 1510, 1550, 1570, 1625, 1850, 1940, 2000, 2050
Operating Wavelength Bandwidth	nm	±15
Grade	dB	P
Insertion Loss for Through Port	dB	≤0.15
Max Excess Loss (EL) ^[1]	dB	≤0.10
Insertion Loss for 0.1% Tap Port ^[2]	dB	30±3
Insertion Loss for 0.01% Tap Port	dB	40±4
Insertion Loss for 0.001% Tap Port	dB	50±5
Polarization Dependent Loss (PDL)	dB	≤0.15
Fiber Type		HI780, 780HP, HI1060, HI1060Flex, SMF-28e, SM1950
Return Loss (RL)	dB	≥50
Directivity (DIR) ^[3]	dB	≥55
Max Loss for Each Connector ^[4]	dB	0.15
Max Power Handling CW	W	0.5, 1, 3, 5, 20
Operating Temperature	°C	-40 ~ +85
Storage Temperature	°C	-50 ~ +85

^[1] $EL=10 * \log_{10} (P_{in} \div (P_{out1}+P_{out2}))$, P=power in mW.

^[2] Test at room temperature without connectors. With connectors, IL+0.3dB, RL-5dB.

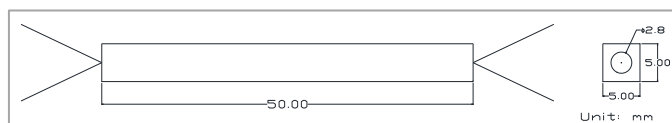
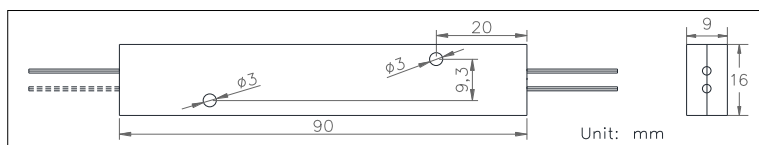
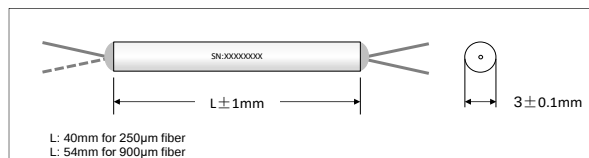
^[3] $DIR=10 * \log_{10} (P_{out2} \div P_{out1})$, or $DIR=10 * \log_{10} (P_{in2} \div P_{in1})$, P=power in mW, test light input from Port1.

When test DIR at output port, coil all input fibers 3-5 turns around a 10-30mm diameter loop, this prevents back reflections into output port2, which would significantly lower DIR.

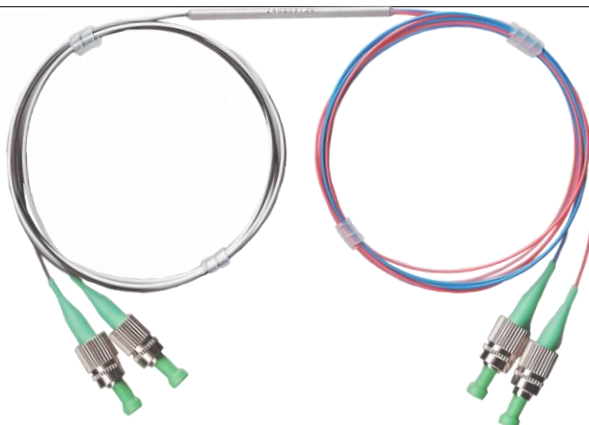
^[4] Max power handling for connector 1W (CW).

Package Information

Port Configuration	1x2 or 2x2		
Fiber Length	1m, others on request		
Pigtail Type	250µm Bare Fiber	900µm Loose Tube	2mm/3mm Loose Cable
Dimensions(mm)	φ3x40, φ3x54, 5x5x50	φ3x54	90x16x9
Approx Weight (g)	30	45	60



For power >5W



Ordering Information

CP- ①①-②③③③-④④④-⑤⑤⑤⑤-⑥⑥⑥-⑦⑧⑨⑨-⑩⑩⑩⑩-⑪⑪⑪⑪

①	Type	UL=Ultra-Low Ratio;
②	Grade	P=Grade P;
③	Port Type	1x2; 2x2;
④	Wavelength	780; 850; 980; 1064; 1310; 1510; 1550; 1570; 1625; 1850; 1940; 2000; 2050;
⑤	Coupling Ratio	0.1%; 0.01%; 0.001%;
⑥	Pigtail Type	250=250μm Fiber; 900=900μm Loose Tube; 2mm=2mm loose tube; 3mm=3mm Loose Tube;
⑦	Fiber Type	7=HI780; H7=780HP; 4=HI1060; 8=HI1060Flex; 1=SMF-28e; S9=SM1950;
⑧	Length	1=1m; X=Other Length;
⑨	Connector	NE=None; FA=FC/APC; FC=FC/UPC; SA=SC/APC; SC=SC/UPC; LC=LC/UPC; XX=Others;
⑩	Package	3x40; 3x54; 90x16x9; 5x5x50;
⑪	Power Handling	0.5W; 1W; 3W; 5W; 20W;