

# 1x2 / 2x2 Single Mode Fiber Optic Coupler/Splitter VIS/NIR

(350nm-1060nm)



DATASHEET

BUY NOW



## Features

- Wavelength Independent
- Low Insertion Loss
- Low PDL
- Highly Stable & Reliable
- Ultra Low Cost

## Applications

- Optical communications
- FTTX
- Local Access Network (LAN)
- Fiberoptic Instrumentation

The FC Series fiber optic coupler is based on Agiltron's fused biconical taper technology and compact packaging structure. It features good uniformity, low excess loss and very low polarization sensitivity. The device is ideal for splitting or combining light with exceptional performance over a wide wavelength range.

Couplers are highly efficient in splitting light with little loss, about 0.2dB per joint, but incur significant losses when combining lights; for example, a 50/50 coupler produces a 50% loss to each beam when combined. For beam-combining applications, search Combiner.

## Specifications

Parameter	Premium	Grade A	Premium	Grade A	Unit	
Splitting Ratio	1/99 to 50/50					
Bandwidth	± 20 (780~1200)		± 10 (532~685)		nm	
Excess Loss <sup>[1]</sup>	0.07	0.1	0.1	0.2	dB	
Insertion Loss <sup>[1]</sup>	50/50	3.4/3.4	3.6/3.6	3.6/3.6	3.8/3.8	dB
	40/60	4.4/2.5	4.8/2.8	4.8/2.8	5.0/3.1	dB
	30/70	5.6/1.8	6.1/2.0	6.1/2.0	6.2/2.4	dB
	20/80	7.5/1.2	8.0/1.3	8.0/1.3	8.0/1.8	dB
	10/90	10.8/0.6	12.0/0.8	12.0/0.8	11.0/1.3	dB
	5/95	14.6/0.4	18.4/0.5	18.4/0.5	14.5/1.1	dB
	4/96	16.0/0.3	19.0/0.4	19.0/0.4	15.0/1.05	dB
	3/97	17.5/0.3	19.5/0.4	19.5/0.4	16.5/0.95	dB
	2/98	19.0/0.2	20.0/0.3	20.0/0.3	18.0/0.9	dB
1/99	21.5/0.2	22.0/0.3	22.0/0.3	21.0/0.9	dB	
0.5/99.5	23.0/0.2	24.0/0.3	24.0/0.3	24.0/0.9	dB	
Polarization Dependent Loss	0.1	0.15	0.15	0.2	dB	
Uniformity	0.6	1.0	1.0	1.4	dB	
Optical Power Handling	5				W	
Operating Temperature	-40~85				°C	
Storage Temperature	-50~85				°C	
Package Dimension *	Bare fiber: (ø)3x(L)54 900um loose tube: (ø)3x(L)70 900um loose tube / 2mm / 3mm Cable: (L)90x(W)16x(H)9				mm	

### Notes:

[1]. Without connector. Each connector adds 0.3dB and 0.5dB for short wavelength

\* Other package options available on request

**Note:** The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [\[click this link\]](#):

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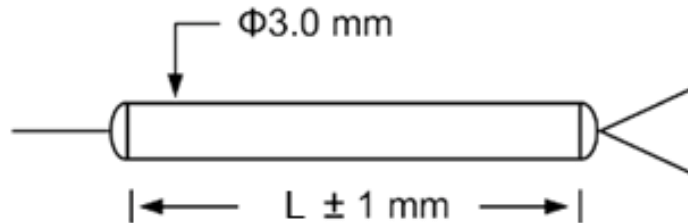
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### Mechanical Dimensions (mm)



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

### Ordering Information

Prefix	Port	Wavelength	Grade	Package	Splitting Ratio	Fiber Type	Fiber Cover	Fiber Length	Connector	
FCSN-	1x2 = 1	1625nm = 1	P Grade = P	54(L) = 1	01/99 = 1	SM28 = 1	250 $\mu$ m fiber = 1	0.5m = 1	None = 0	
	2x2 = 2	1590nm = 2	A Grade = A	70(L) = 2	02/98 = 2	PM980 = 3	900 $\mu$ m tube = 2	0.75m = 2	FC/PC = 1	
		1570nm = 3		90(L) = 3	05/95 = 3	HI1060 = 4	3mm cable = 4	1.0m = 3	FC/SPC = 2	
		1550nm = 4		Special = 0	10/90 = 4	HI1060 Flex = 5	Special = 0	Special = 0	FC/APC = 3	
		1480nm = 5			20/80 = 5	HI780C = 6			FC/UPC = 4	
		1475nm = 6			30/70 = 6	630-HP = 7			SC/SPC = 5	
		1310nm = 7			40/60 = 7	460-HP = 8			SC/APC = 6	
		1064nm = 8			50/50 = 8	SM1950 = 9			SC/UPC = 7	
		980nm = 9			0.5/99.5 = 9	Large MAF <sup>[1]</sup> = L			ST = 8	
		850nm = A			3/97 = A	Special = 0			MU = 9	
		830nm = K			4/96 = B				LC/PC = A	
		780nm = L			Special = 0				LC/APC = B	
		685nm = F							LC/UPC = C	
		650nm = E								
		633nm = B								
		532nm = C								
		2000nm = P								
		1030nm = R								
		Special = 0								

[1]. Large Mode Area Fiber