

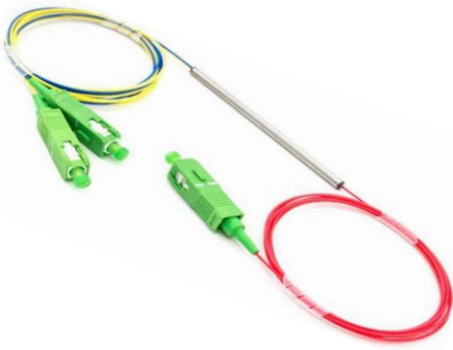
Double-Clad Fiber Coupler 680nm to 980nm

(efficient collecting back reflection lights)



DATASHEET

BUY NOW



Features

- Single Mode Core Guide
- Multimode Reflection Guide
- Low Loss Transmission
- High Efficient Collection
- Versatile

Applications

- LiDAR
- OCT
- Fluorescence Imaging
- Confocal Microscopy
- Endoscopy

Agiltron's double-clad 2x2 fiber coupler combines a double-clad fiber (single mode core surrounded by a multimode inner cladding) with a large core multimode fiber. Light in the single mode core of the double-clad fiber (DCF) is guided through the coupler with little loss (≤ 0.5 dB). Light in the multimode inner cladding of the DCF is transferred to the output multimode fiber with $\geq 60\%$ transmission.

Specifications

Parameter	Min	Typical	Max	Unit
Operation Wavelength	680	780	980	nm
Single Mode Core Insertion Loss ^[1]		0.3	0.6	dB
Multimode Cladding Transfer ^[2]		60	70	%
Optical Power Handling			100	mW
Core Diameter (NA=0.12)		4.1		μm
Inner Cladding Diameter (NA=0.19)		26		μm
Collection Fiber Diameter (NA=0.22)		200		μm
Operating Temperature	-40		70	$^{\circ}\text{C}$
Storage Temperature	-40		85	$^{\circ}\text{C}$

Notes:

[1]. Exclude connectors and fiber loss, the loss may degrade over time due to shortwave radiation

[2]. Port 2 to 3. Exclude connectors and the water absorption region around 1383 nm

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Rev 12/21/23

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Ordering Information

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Prefix	Center Wavelength	Collect Fiber	Double Cladding	Pigtail Style	Fiber Length	Connector Input	Connector Output	Connector Signal
DCFC-	1030 = 1 1310 = 3 780 = 7 530 = 5 Special = 0	200 μ m NA=0.22 Special = 0	Core=4.1 μ m, NA=0.12 Cladding=26 μ m, NA=0.19 Special = 00	900um Jacket = 2 Special = 0	0.25m = 1 0.5m = 2 1.0m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3	None = 1 FC/PC = 2 FC/APC = 3 SMA = 4	None = 1 FC/PC = 2 FC/APC = 3 SMA = 4