

Double-Clad Fiber Coupler

430nm to 680nm

(efficient collecting back reflection lights)

Product Description

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.



Performance Specifications

Double Cladding Fiber Coupler	Min	Typical	Max	Unit
Operation Wavelength	430	532	680	nm
Single Mode Core Insertion Loss ¹		0.3	0.6	dB
Multimode Cladding Transfer ²		60	70	%
Optical Power Handling			50	mW
Core Diameter (NA=0.11)		2.3		μm
Inner Cladding Diameter (NA=0.19)		15		μm
Collection Fiber Diameter (NA=0.22)		200		μm
Operating Temperature	-40		70	$^{\circ}\text{C}$
Storage Temperature	-40		85	$^{\circ}\text{C}$
Package Dimension		\varnothing 3.2 x 85		mm

Note:

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

Features

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

Applications

- LiDAR
- OCT
- Fluorescence Imagine
- Confocal Microscopy
- Endoscopy

Ordering Information

DCFC	<input type="checkbox"/>	2	2 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Center Wavelength	Collect Fiber	Double Cladding	Pigtail Style	Fiber Length	Connector Input	Connector Output	Connector Signal
	1030=1 1310=3 780=7 530=5 Special=0	200 μm NA=0.22 Special =00	Core=2.3 μm , NA=0.11 Cladding=15 μm , NA=0.19 Special =000	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