

**BUY NOW** 

# FiberOptic Coupler/Splitter 1310 & 1550nm Single Mode

(patents pending)

## Product Description

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



## Performance Specifications

| FC Series                        | Single Window                  | Dual Window             | Unit        |    |
|----------------------------------|--------------------------------|-------------------------|-------------|----|
| Coupling Ratio                   | 1/99 to 50/50                  |                         |             |    |
| Operation Wavelength             | 1270-1350 or 1510-1590         | 1270-1350 and 1510-1590 | nm          |    |
| Excess Loss                      | < 0.1                          | < 0.1                   | dB          |    |
| Insertion Loss Split Ratio:50/50 | < 3.3                          | < 3.6                   | dB          |    |
|                                  | Split Ratio:40/60              | < 4.4/2.5               | < 4.7/2.7   | dB |
|                                  | Split Ratio:30/70              | < 5.6/1.8               | < 6.0/1.9   | dB |
|                                  | Split Ratio:20/80              | < 7.4/1.1               | < 7.9/1.2   | dB |
|                                  | plit Ratio:10/90               | < 11.0/0.60             | < 11.3/0.65 | dB |
|                                  | Split Ratio: 5/95              | < 13.8/0.45             | < 15.2/0.4  | dB |
| Split Ratio: 1/99                | < 19-21/0.2                    | < 23.5/0.3              | dB          |    |
| Uniformity (50/50)               | < 0.5                          | < 0.8                   | dB          |    |
| Polarization Dependent Loss      | < 0.10                         | < 0.15                  | dB          |    |
| Temperature Sensitivity          | < 0.002                        |                         | dB/°C       |    |
| Directivity                      | > 55                           |                         | dB          |    |
| Return Loss                      | > 55                           |                         | dB          |    |
| Optical Power Handling           | < 4                            |                         | W           |    |
| Operating Temperature            | -10-70                         |                         | °C          |    |
| Storage Temperature              | -40-85                         |                         | °C          |    |
| Package Dimension *              | 250um&900um fiber: (φ)3x(L)54  |                         | mm          |    |
|                                  | Mini: (φ)3x(L)25 special fiber |                         |             |    |
|                                  | 3mm Cable: (L)98x(W)14x(H)8.5  |                         |             |    |

\* Other package options available on request

## Features

- Wavelength Independent
- Ultra Low Excess Loss
- Low Polarization Sensitivity
- Highly Stable & Reliable
- Ultra Low Cost

## Applications

- Telecommunications
- CATV
- Local Access Network (LAN)
- Fiberoptic Instrumentation

# FiberOptic Coupler/Splitter 1310 & 1550nm Single Mode

## Ordering Information (Part

| Prefix | Type                              | Wavelength                                   | Grade                  | Package                                    | Coupling Ratio   | Port           | Fiber Type  | Connector Type <sup>[1]</sup>  |
|--------|-----------------------------------|--|------------------------|--|--|----------------|---|--|
| FC-    | Single Window=1<br>Dual Window= 2 | 1310=3<br>1550=5<br>1310/1550=7<br>Special=0 | Premium=1<br>Special=0 | 54(L)=1<br>30(L)=2<br>98(L)=3<br>Special=0 | 01/99 = 1<br>02/98 = 2<br>05/95 = 3<br>10/90 = 4<br>15/85 = 5<br>20/80 = 6<br>30/70 = 7<br>40/60 = 8<br>50/50 = 9<br>Special = 0 | 1x2=1<br>2x2=2 | SMF28 250mm=1<br>900um loose tube=3<br>Special= 0 | None = 1<br>FC / PC = 2<br>FC / APC = 3<br>SC / PC = 4<br>SC / APC = 5<br>ST / PC = 6<br>LC = 7<br>Special = 0 |

[1]. The connector cannot be installed directly onto bare fiber, as it is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer can remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SM28 fiber and decreases further with smaller core fibers.

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