

Single Mode Fiber Coupler (SFC)

Single window tap coupler with various coupling ratios. Wavelength bandwidth +/- 10nm

Fused Biconical Tapered (FBT) Coupler

FBT couplers are fabricated by placing two standard single-mode fibers side by side, twisting them together to bring them into strong contact and thermally fusing them while elongating the fused region. After the tapering process, the couplers will be potted and mounted in small and rugged packages.



Features

- Low excess loss
- Low insertion loss
- Excellent uniformity
- Environmentally stable and reliable
- Small size for miniaturized systems
- Can be manufactured according to customer specifications
- Compliant to Telcordia GR-1221

Applications

- Passive Optical Network (PON)
- Optical fiber amplifier
- Cable TV
- Optical sensing equipment
- Measuring instruments and equipment

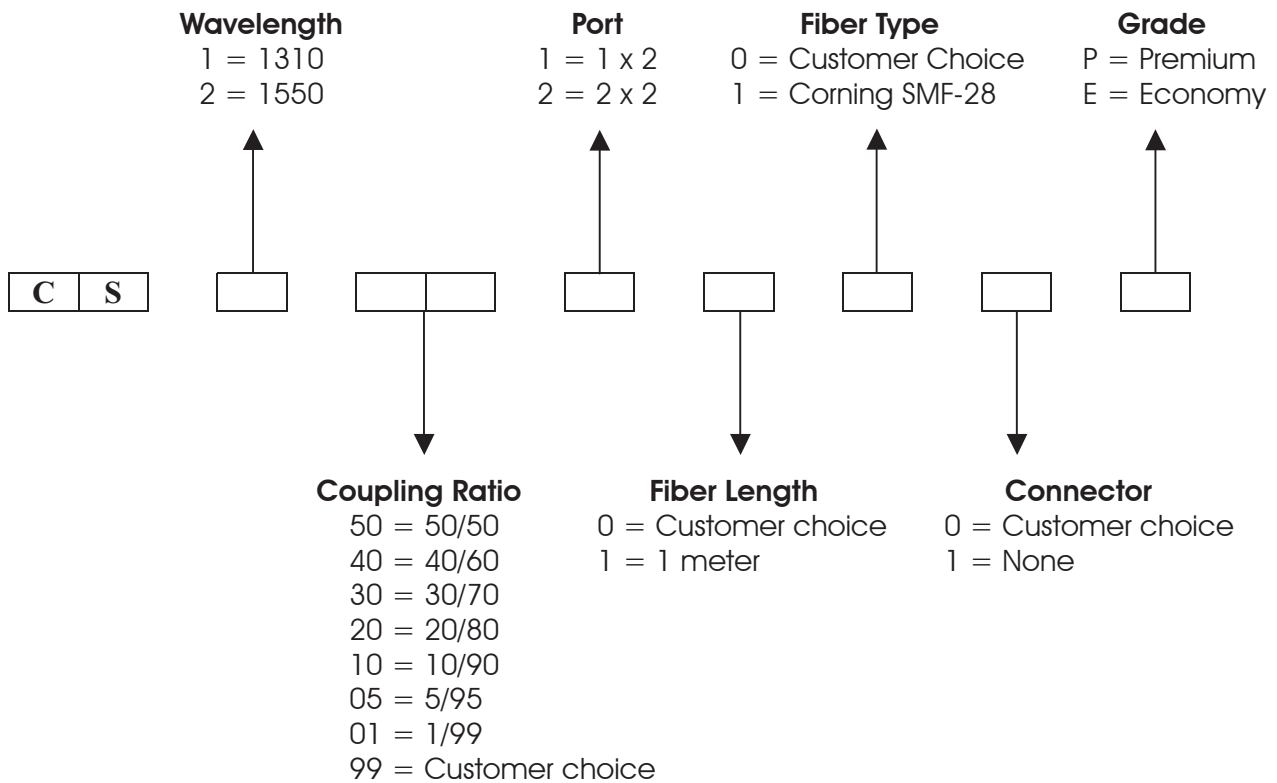
Specifications

50/50 Coupling Ratio		Unit	Premium	Economy
Center Wavelength		nm	1310 or 1550	
Wavelength Bandwidth		nm	± 10	
Insertion Loss*	Max.	dB	3.4	3.6
Excess Loss*	Max.	dB	0.07	0.1
Uniformity	Max.	dB	0.6	1
Polarization Dependent Loss	Max.	dB	0.1	0.15
Directivity	Min.	dB	50	
Temperature Coefficient	Max.	dB / °C	0.002	
Operating Temperature Range**		°C	-40 to +85	
Storage Temperature Range**		°C	-50 to +85	
Package Dimensions		mm	3.0(OD) x 52(L)	

* without Connector

** -20 to -70°C for 2.4 mm cable

SFC Ordering Information



Coupling Ratio / Insertion Loss Conversion Table

Splitting Ratio	Insertion Loss (dB)	
	Premium	Economy
40 / 60	4.4 / 2.5	4.8 / 2.8
30 / 70	5.6 / 1.8	6.1 / 2.0
20 / 80	7.4 / 1.1	8.0 / 1.3
10 / 90	10.8 / 0.6	12.0 / 0.8
5 / 95	14.6 / 0.4	18.4 / 0.5
1 / 99	21.5 / 0.2	22.0 / 0.3

Note:

1. ☐ Warranty from manufacturing defect for a one year period.
2. ☐ Available for OEM orders.
3. ☐ Photronix Technologies reserves the right to make changes to the product described herein without notice.