

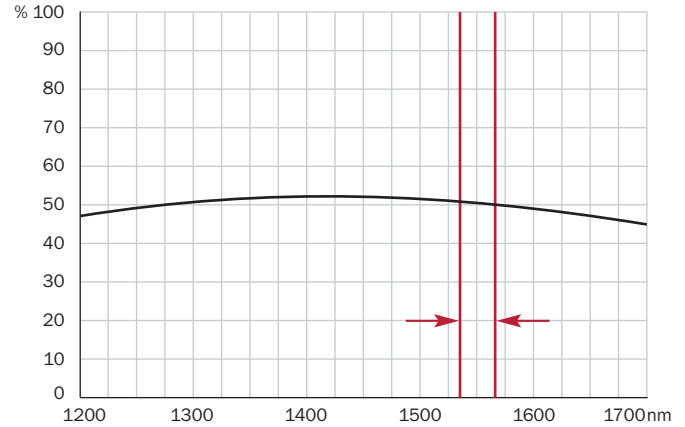
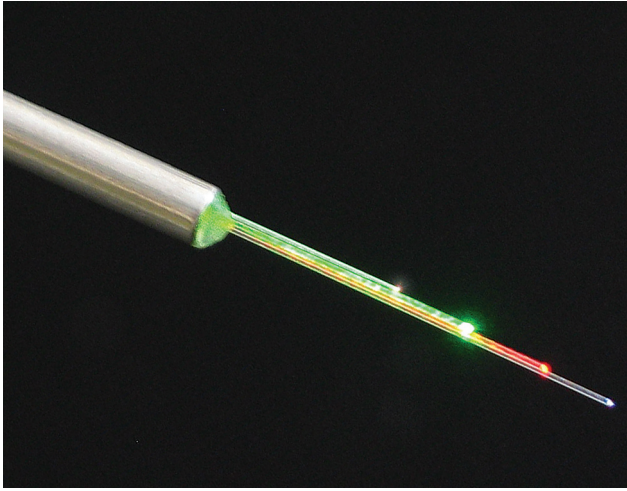


For a complete overview of components visit our website at www.foc-fo.com.

Components ▶ Couplers ▶ Singlemode Couplers ▶
▶ SM Power Splitters ▶

C-Band Singlemode Coupler (CBC)

For the wavelength range from 1530 nm to 1565 nm



Wavelength dependence of Coupling Ratio of symmetrical C-Band Coupler

C-Band Couplers (CBC) are passive optical singlemode devices which allow the distribution and combination of optical signals of wavelength 1530 nm to 1565 nm.

The couplers are manufactured on the basis of an advanced Fused Biconical Taper (FBT) technology to provide optimum performance and longtime stability.

Features

- Low insertion loss and extremely low excess loss.
- Free choice of coupling ratio, e.g. as tap coupler with a coupling ratio of 1% or as symmetrical coupler with coupling ratio of 50% .
- High return loss, i.e. no reflections interfering with the transmitter in analogue systems.
- High thermal, mechanical and enviromental stability to meet the requirements of Telcordia GR-1209 / GR-1221.
- Option of manufacture to customer specifications.

Applications

- Public and private fibre-optic networks.
- Measurement systems and test equipment.
- Optical transmission and monitoring systems.

Models

- Supplied in various housing sizes with bare fibre pigtailed, loose buffered tube pigtailed or reinforced cable pigtailed.
- Couplers with more than two outlets are available as truly fused components with up to four fibres or as coupler modules.
- All connector standard types are available.

For a list of all models including dimensional specifications see the data sheets Coupler Models; Overview of Short and Standard Versions.

For check lists and additional ordering information for our products visit our website or see separate data sheets.



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Optical parameter for 1x2 and 2x2 configurations

Wavelength [nm]		1530 to 1565	
Output port		O 1	O 2
Max. Insertion Loss [dB] with Coupling Ratio	50/50 %	3,3	3,3
	60/40 %	2,4	4,3
	67/33 %	2,0	5,2
	70/30 %	1,7	5,6
	80/20 %	1,1	7,4
	90/10 %	0,6	10,5
	95/05 %	0,4	13,5
	99/01 %	0,2	21,5
	Min. Directivity [dB]		55 for 1x2, 60 for 2x2
Min. Return Loss [dB]		55 for 1x2, 60 for 2x2	
Polarisation Dependent Loss ^(1,2) [dB]		typical 0.05	

⁽¹⁾ maximum 0.1dB for port O 1; maximum 0.2dB for port O 2, for symmetrical couplers ⁽²⁾ measured at 1550 nm

Optical parameter for 1x3 configurations

Wavelength [nm]		1530 to 1565		
Output port		O 1	O 2	O 3
Max. Insertion Loss [dB] with power splitting	90/05/05 %	0,8	17,2	17,2
	80/10/10 %	1,5	12,8	12,8
	70/15/15 %	2,1	10,0	10,0
	60/20/20 %	2,8	8,3	8,3
	50/25/25 %	3,7	7,1	7,1
	40/30/30 %	4,7	6,2	6,2
	33/33/33 %	5,6	5,6	5,6
	30/35/35 %	6,2	5,4	5,4
	20/40/40 %	8,3	4,7	4,7
	10/45/45 %	12,8	4,2	4,2
Min. Directivity [dB]		55		
Min. Return Loss [dB]		55		
Polarisation Dependent Loss ^(1,2) [dB]		typical 0.05		

⁽¹⁾ maximum 0.1dB for port O 1; maximum 0.2dB for ports O 2 and O 3, for symmetrical couplers ⁽²⁾ measured at 1550 nm

Optical parameter for 1x4 configurations

Wavelength [nm]		1530 to 1565			
Output port		O 1	O 2	O 3	O 4
Max. Insertion Loss [dB] with equal power splitting		7,0	7,0	7,0	7,0
Min. Directivity [dB]		55			
Min. Return Loss [dB]		55			
Polarisation Dependent Loss ^(1,2) [dB]		typical 0.25			

⁽¹⁾ maximum 0,5 dB ⁽²⁾ measured at 1550 nm