

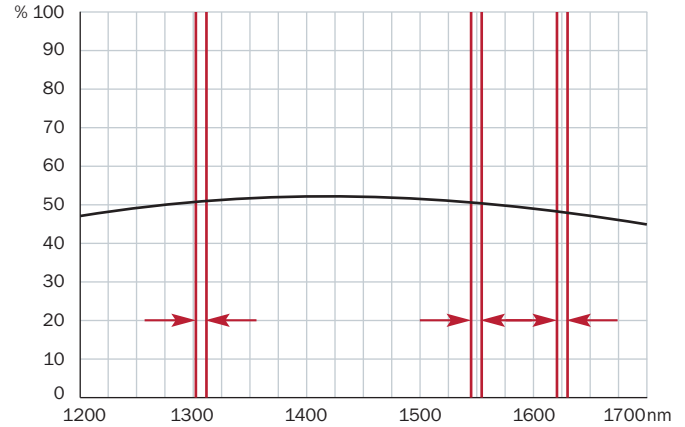
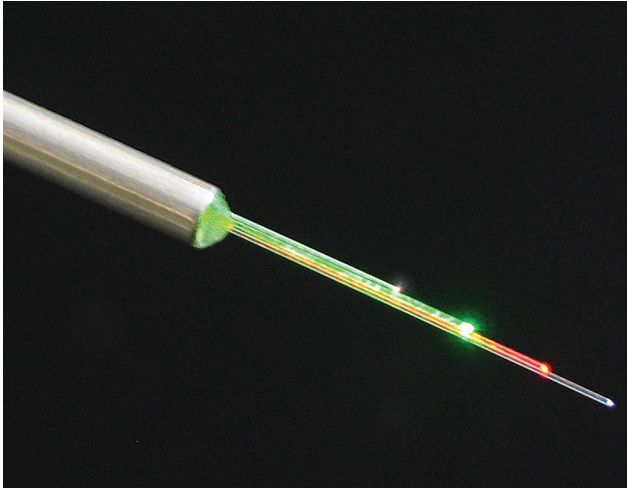


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Components ▶ Couplers ▶ Singlemode Couplers ▶ SM Power Splitters ▶

## Standard - Singlemode Coupler (SSC)

For the wavelength range 1310 nm, 1550 nm or 1625 nm



Wavelength dependence of Coupling Ratio of symmetrical SSCs at 1310 nm, 1550 nm and 1625 nm

Standard Singlemode Couplers (SSC) are passive optical devices which allow the distribution and combination of optical signals of wavelength 1310 nm, 1550 nm or 1625 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 environmental 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]		1310 ± 5, 1550 ± 5 or 1625 ± 5	
Output port		O 1	O 2
Max. Insertion Loss [dB] with Coupling Ratio	50/50 %	3,4	3,4
	60/40 %	2,5	4,3
	67/33 %	2,0	5,2
	70/30 %	1,8	5,6
	80/20 %	1,1	7,4
	90/10 %	0,6	10,6
	95/05 %	0,4	13,8
	99/01 %	0,2	22,9
	Min. Directivity [dB]	55 for 1x2, 60 for 2x2	
Min. Return Loss [dB]	55 for 1x2, 60 for 2x2		
Polarisation Dependent Loss <sup>(1,2)</sup> [dB]	typical 0,05		

<sup>(1)</sup> maximum 0.1dB for port O 1; maximum 0.2dB for port O 2, for symmetrical coupler <sup>(2)</sup> measured at central wavelength of wavelength range

**Optical parameter for 1x3 configurations**

Wavelength [nm]		1310 ± 5, 1550 ± 5 or 1625 ± 5		
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 <sup>(1,2)</sup> [dB]	typical 0,05			

<sup>(1)</sup> maximum 0.1dB for port O 1; maximum 0.2dB for ports O 2 and O 3, for symmetrical couplers

<sup>(2)</sup> measured at central wavelength of wavelength range

**Optical parameter for 1x4 configurations**

Wavelength [nm]		1310 ± 5, 1550 ± 5 or 1625 ± 5			
Output port		O 1	O 2	O 3	O 4
Max. Insertion Loss [dB] with equal power splitting		7,1	7,1	7,1	7,1
Min. Directivity [dB]		55			
Min. Return Loss [dB]		55			
Polarisation Dependent Loss <sup>(1,2)</sup> [dB]		typical 0,25			

<sup>(1)</sup> maximum 0.5 dB <sup>(2)</sup> measured at central wavelength of wavelength range