

Single Window Fused Couplers

High performance couplers and taps in the 1300nm, C-band and L-band wavelength regions.

FEATURES:

- Low excess loss
- High directivity
- Low PDL
- Good environmental stability
- High return loss
- Telcordia GR-1221-CORE

APPLICATIONS:

- Power splitting
- Power monitoring
- Optical fiber sensors
- Optical fiber networks
- CATV

The Phoenix Photonics range of fused fibre couplers has been developed to offer the designer flexibility in optimising system performance. The proven FBT technology base has been utilised to optimise specific device parameters, reflected in the specific product categorisation. Parameters that can be selected through the choice of appropriate device are; coupling ratio, insertion loss, wavelength flatness, polarization stability and centre wavelength.

All of the coupler options offer very low excess loss and PDL performance, are available in a range of coupling ratios from 1% to 50% and have 1x2 or 2x2 configuration.

Single Window

Single window couplers provide low polarization sensitivity with +/-20nm for centre wavelengths of 1300nm, 1550nm and 1590nm.

SPECIFICATION:	Units	1x2 or 2x2 Port Couplers							
Wavelength ¹	nm	1300, 1550, 1590							
Bandwidth	nm	+-20							
Excess Loss	dB	0.05(typ.), 0.08 (max.)							
Splitting Ratio	%	50/50	60/40	70/30	80/20	90/10	95/5	97/3	99/1
Ratio Tolerance	%					+-1.5	+-1.0	+-0.8	+-0.4
Insertion Loss ²	Typ.	3.05	2.3/4.1	1.6/5.3	1.0/7.1				
	Max.	3.3	2.5/4.4	1.8/5.6	1.1/7.4				
WDL (tap port)	dB					+-0.2	+-0.3	+-0.4	+-0.4
PDL (through port)	dB								
PDL (tap port)	dB							<0.08	
Thermal Stability ³	dB	<0.1				<0.2			
Operating Temperature	°C	-40 to +85							
Directivity ⁴	1x2	>50							
	2x2	>65							
Pigtails	mm	1000							

Lead Type	250µm	900µm loose tube	3mm cable
Package Dimensions	3mm dia. x54mm	3.5mm dia. x 66mm	90mmx16mmx9mm
		90mmx16mmx9mm	106mmx79mmx10mm

Notes:

- 1 Center wavelength can be tailored to customer requirements
- 2 Insertion loss without connectors
- 3 Maximum variation of coupling ratio over full, specified temperature range
- 4 Directivity of 60dB can be supplied on request

CONFIGURATION:

All couplers are available with single input fiber and two output fibers (1x2) or two input fibers and two output fibers (2x2).

PRODUCT ORDERING INFORMATION:

Note: Not all options below may not be available in all coupler types, please check with our sales representative, to ensure your specific requirements can be met.

