

PM Fiber Optic Fused Coupler Dual Polarizations



DATASHEET

BUY NOW



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

This FC Series PM fiber optic coupler works on both orthogonally polarized light, providing polarization independent coupling function. 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.

Couplers are highly efficient in splitting light with little loss, about 0.2dB per joint, but incur significant losses when combining lights; for example, a 50/50 coupler produces a 50% loss to each beam when combined. For beam-combining applications, search Combiner.

Specifications

Parameter	Min	Typical	Max	Unit
Coupling Ratio		1/99 to 50/50		%
Wavelength Bandwidth		± 15		nm
Polarization Dependent Loss		0.15		dB
Directivity		> 55		dB
Return Loss ^[3]		> 55		dB
Optical Power Handling		< 3		W
Operating Temperature	-40		85	°C
Storage Temperature	-50		85	°C

Parameter	Grade P	Grade A	Unit	
Excess Loss ^[1]	1310,1550 nm	≤0.3	≤0.4	dB
	980~1060 nm	≤0.4	≤0.6	dB
	780,850 nm	≤0.6	≤0.8	dB
Polarization Extinction Ratio ^[2]	≥20	≥18	dB	
Split Ratio Tolerance				
Split Ratio: 50/50	± 3.8	± 6.0	%	
Split Ratio: 40/60	± 2.9	± 4.5	%	
Split Ratio: 30/70	± 1.5	± 3.0	%	
Split Ratio: 20/80	± 1.3	± 2.1	%	
Split Ratio: 10/90	± 1.1	± 1.6	%	
Split Ratio: 5/95	± 0.8	± 1.3	%	
Split Ratio: 1/99	± 0.5	± 0.6	%	

Notes:

[1]. Without connector. Each connector adds 0.3dB and 0.5dB for short wavelength

[2]. Without connector. Each connector adds 2dB

[3]. Without connector. Each connector adds 5dB

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [\[click this link\]](#):



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Ordering Information

Prefix	Wavelength	Grade	Package	Coupling Ratio	Port	Fiber Type	Fiber Cover	Configuration	Connector
FCPM-	1060 = 1 1310 = 3 1550 = 5 780 = 7 850 = 8 980 = 9 Special = 0	Premium = 1 Standard = 2 Special = 0	40(L) = 1 54(L) = 2 Square = 3 Special = 0	01/99 = 1 02/98 = 2 05/95 = 3 10/90 = 4 15/85 = 5 20/80 = 6 30/70 = 7 40/60 = 8 50/50 = 9 Special = 0	1x2 = 1 2x2 = 2	Panda = 1 Special = 0	250µm = 1 900µm = 3 Special = 0	Low PDL = 1 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/U/PC = U Special = 0