



PLANAR LIGHTWAVE CIRCUIT

High Grade PM PLC Based Planar Waveguide Optical Signal Splitters

PRODUCT DATASHEET

EM4's polarization-maintaining (PM) planar lightwave circuits (PLC) waveguide optical splitters are fabricated using an ion-exchange based manufacturing process providing superior dependability and great performance.

They are designed to meet the technical requirements of a broad range of applications at a competitive price/performance ratio.

These high quality optical splitters are available in 1x4 and 1x8 port configurations and compact packaging options. Operating wavelength ranges are 1310±50 nm and 1480 nm to 1580 nm.

The PM planar offers a high extinction ratio (ER), low insertion loss and strong uniformity with polarization launch into a slow, fast or dual axis with a ±50 nm bandpass. EM4 utilizes polarization- maintaining fiber from different suppliers to accommodate your application specific operating wavelengths. Available connector options are FC and FC/APC.



Key Features

- Very low optical insertion loss
- Superior optical uniformity
- Low optical back reflection
- High polarization extinction ratio
- Ultra-low polarization dependent loss (PDL)
- Highly reliable and compact packaging
- State-of-the-art ISO 9001 certified manufacturing facility

Applications

- PON – FTTx networks
- Outside plant equipment
- OADM and ROADM
- CATV
- DWDM and CWDM systems
- Sensors
- Instrumentation
- Defense

Optical Specifications

Specifications for high grade polarization maintaining (PM) 1×4 and 1×8 planar waveguide optical signal splitters

Optical specification		
Port configuration	1x4	1x8
Wavelength	1310±50 nm or 1550±50 nm	
Maximum insertion loss ¹	≤7.5 dB	≤10.9 dB
Uniformity ¹	≤0.6 dB	≤1.0 dB
Polarization extinction ratio	≥20 dB	
Return loss	≥55 dB	
Directivity	≥55 dB	
Storage temperature	-40 to +85°C	
Operating temperature	0 to +85°C	
Packing dimensions	70x10x5.6 mm	

¹ For connectorized products add the corresponding connector loss to the above maximum insertion loss and add 0.2 dB to the uniformity specification.

Order code		①	②	③	④	⑤			⑥			⑦	⑧	⑨	⑩
8	5	-						-	0		-	1	B	A	

①	PM operational axis	Dual axis (slow and fast)	Slow	Fast	
	Code	1	3	5	
②③	Fiber	Corning/Fujikura PM1300 panda fiber	Corning/Fujikura PM1550 panda fiber		
	Code	86	88		
④⑤	Wavelength	1310±50 nm (fiber option 86)	1480 to 1600 nm (fiber option 88)		
	Code	31	55		
⑥	Output ports	1x4	1x8		
	Code	4	8		
⑦⑧	Package ¹	70x10x5.6 mm (B5 Package) with 250 µm bare fiber pigtails			
	Code	BA			
⑨	Connector style	None	FC	FC/APC	
	Code	0	3	6	
⑩	Lead length	Bulkheads in module box	1 m	1.5 m	2 m
	Code	0	1	2	3

1 Modular packages 36, 41, 42, 43, 56, 57, 58, 61, 62, 63 and 86 are available with details available on request.

Specifications are based on non-connectorized products. For connectorized specifications, please contact sales for details. Custom optical and mechanical configurations are available upon request.

For further information

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