

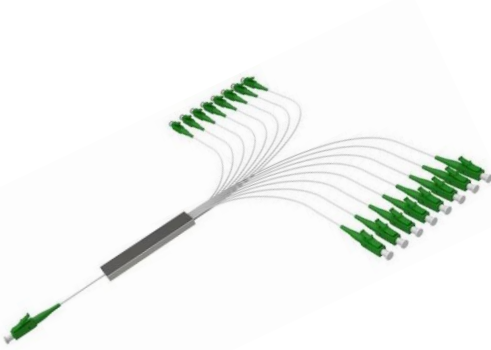
1xN Polarization Maintaining PLC Splitter

1x8, 2x8, 1x16, 2x16, 1x32, 1310/1550nm, both polarization axes, low cost compact



DATASHEET

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Planar lightwave circuit (PLC) splitter is a type of optical power management device that is fabricated using silica optical waveguide technology to splitter an incoming fiber into multiple output fibers. It offers large output ports at low cost with a compact size, than fused couplers. Polarization Maintaining Fiber Splitter is an optical splitter in which the polarization of linearly polarized light waves launched into the fiber is maintained during propagation, with little or no cross-coupling of optical power between the polarization modes. Available configurations are 1xN and 2xN up to 32 output fiber ports. The device intrinsically works for light of both polarizations, also it maintains one polarization.

Features

- Wide Wavelength
- Large Fiber Port
- Compact
- High Uniformity
- Low Cost
- Telcordia Qualified

Applications

- Sensor
- Instrument
- Communication

Specifications

Parameter	Min	Typical	Max	Unit
Center Wavelength	1310		1550	nm
Operating Wavelength Range		±40		nm
Insertion Loss	1x8		10.5	dB
	2x8		11.2	
	1x16		13.7	
	2x16		14.6	
	1x32		16.9	
Uniformity	1x8		1	dB
	2x8		1.2	
	1x16		1.2	
	2x16		1.5	
	1x32		1.5	
Return Loss		50		dB
Polarization Extinction Ratio	18			
Directivity		55		dB
Power Handling		300	500	mW
Working Temperature	-10		75	°C
Storage Temperature	-40		85	°C

Notes:

- Measured without connectors at room temperature
- For devices with connectors, ass 0.3dB to the IL

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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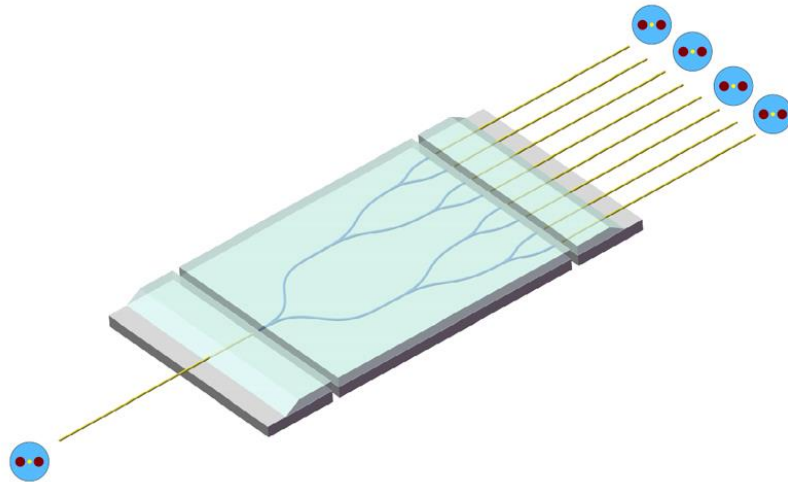
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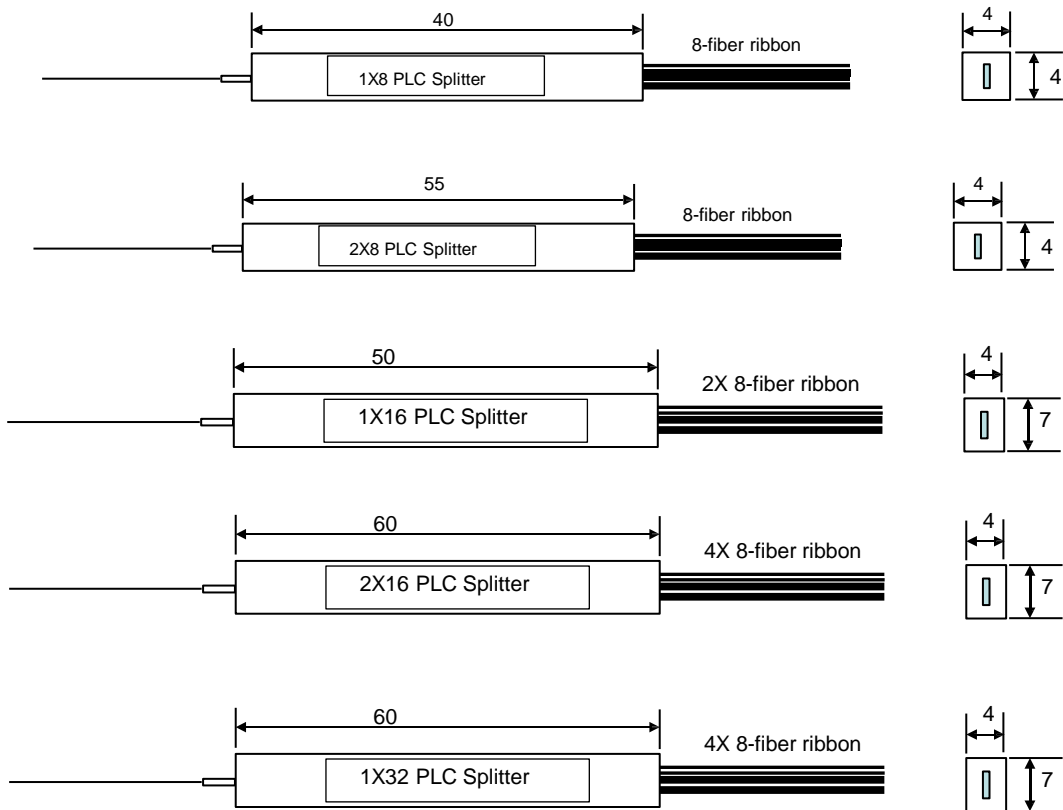


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Configurations



Mechanical Dimensions Bare Fiber PLC Package (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

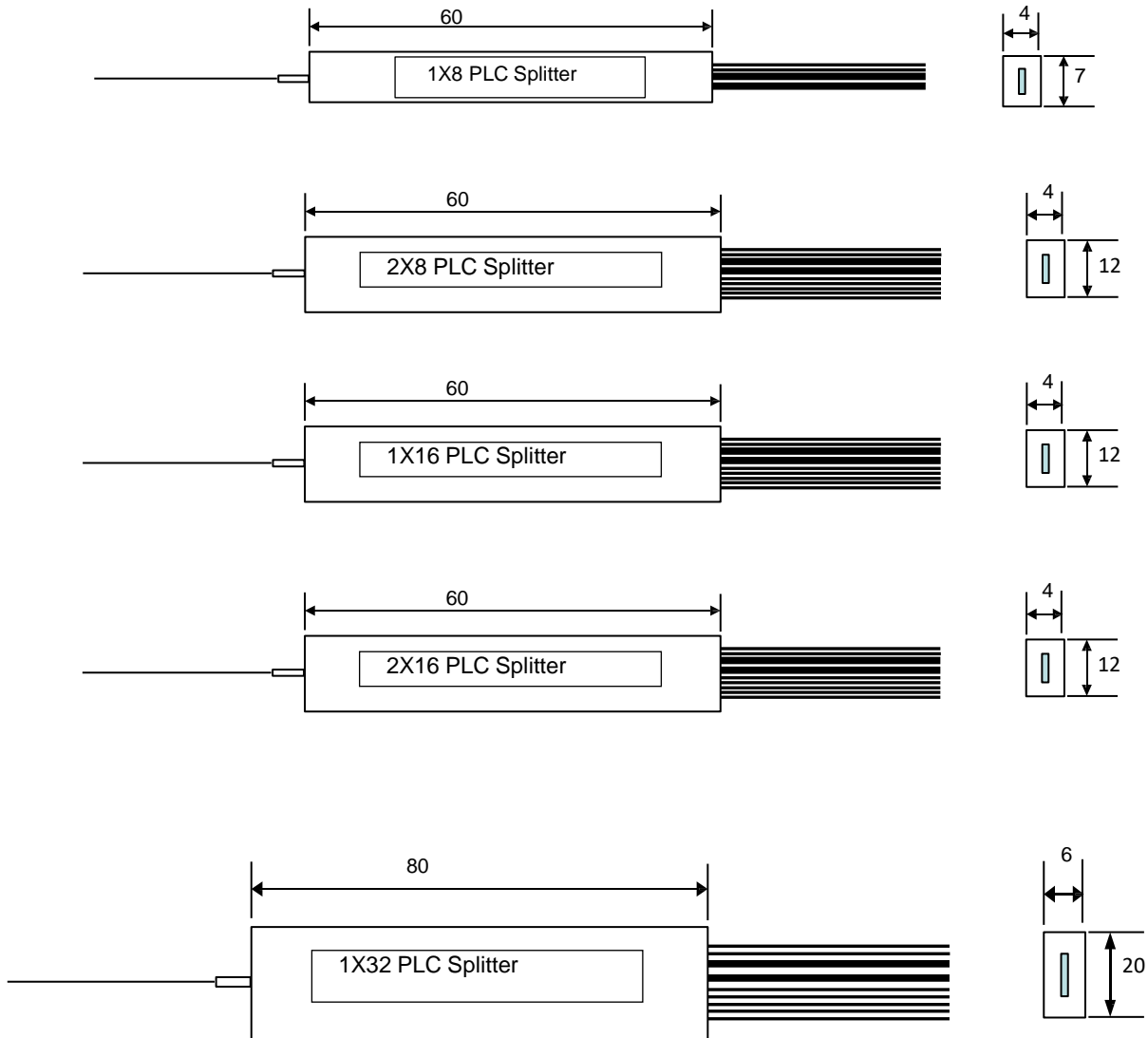
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Mechanical Dimensions Protection Tub Fiber PLC Package (mm)



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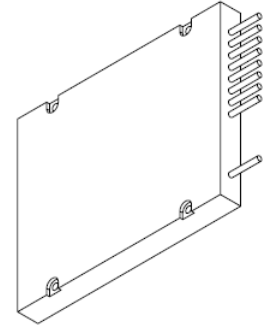
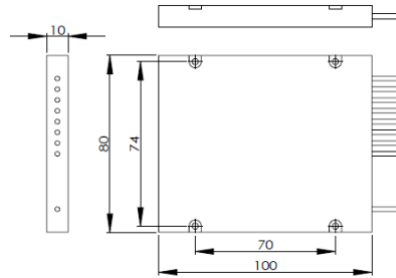


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Mechanical Dimensions PLC Module Package (mm)

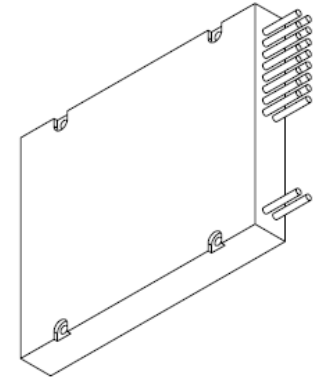
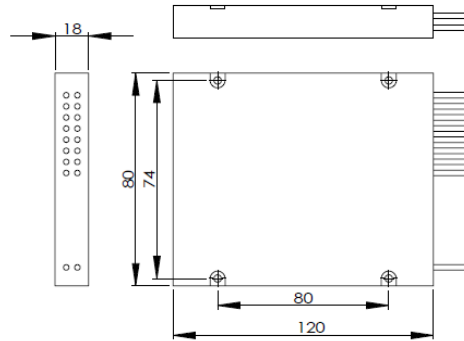
- 1x8, 2x8 Splitters

100 x 8 x 10



- 1x16, 2x16, 1x32 Splitters

120 x 80 x 18



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Ordering Information

Prefix	Wavelength	Input Port	Output Port	Package	Fiber Type	Fiber Length	Input Connector	Output Connector
PPLC-	1310 = 1 1550 = 2 Special = 0	1 = 1 2 = 2 Special = 0	8 = 08 16 = 16 32 = 32	Bare Fiber = 1 Loose Tube = 2 Module = 3	PM1550 = 5 PM1310 = 3 Special = 0	0.25m = 1 0.5 m = 2 1.0 m = 3 1.5 m = 4 2.0 m = 5 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/APC = A LC/UPC = U Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/APC = A LC/UPC = U Special = 0

Fiber Core Alignment

Note that the minimum attenuation for these devices depends on excellent core-to-core alignment when the connectors are mated. This is crucial for shorter wavelengths with smaller fiber core diameters that can increase the loss of many decibels above the specification if they are not perfectly aligned. Different vendors' connectors may not mate well with each other, especially for angled APC.

Fiber Cleanliness

Fibers with smaller core diameters (<5 μm) must be kept extremely clean, contamination at fiber-fiber interfaces, combined with the high optical power density, can lead to significant optical damage. This type of damage usually requires re-polishing or replacement of the connector.

Maximum Optical Input Power

Due to their small fiber core diameters for short wavelength and high photon energies, the damage thresholds for device is substantially reduced than the common 1550nm fiber. To avoid damage to the exposed fiber end faces and internal components, the optical input power should never exceed 20 mW for wavelengths shorter 650nm. We produce a special version to increase the how handling by expanding the core side at the fiber ends.