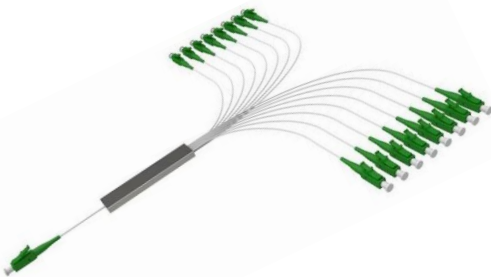


1xN SM PLC Splitter Module



DATASHEET

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Features

- Wide Wavelength
- Ultra Low Excess Loss
- Low PDL
- Highly Stable & Reliable
- High Uniformity
- Low Cost
- Telcordia Qualified

Applications

- Telecommunications
- FTTX
- CATV
- LAN
- Passive Optical Network (PON)

A planar lightwave circuit (PLC) splitter is an optical power management device fabricated using silica optical waveguide technology to distribute optical signals from the Central Office (CO) to multiple premise locations. Bare fiber splitter is a kind of ODN product suitable for PON networks that can be installed in the pigtail cassette, test instrument, and WDM system, which minimizes space occupation.

Specifications

| Parameter | | Min | Typical | Max | Unit |
|------------------------------------|------|------------------|---------|------|------|
| Wavelength | | 1260 | | 1650 | nm |
| Insertion Loss ^{[1], [2]} | 1x2 | | 4.0 | | dB |
| | 1x4 | | 7.3 | | |
| | 1x8 | | 10.8 | | |
| | 1x16 | | 13.8 | | |
| | 1x32 | | 17.2 | | |
| | 1x64 | | 20.5 | | |
| Uniformity | 1x2 | | 0.6 | | dB |
| | 1x4 | | 0.8 | | |
| | 1x8 | | 1.0 | | |
| | 1x16 | | 1.5 | | |
| | 1x32 | | 2.0 | | |
| | 1x64 | | 2.5 | | |
| PDL | 1x2 | | 0.2 | | dB |
| | 1x4 | | 0.2 | | |
| | 1x8 | | 0.2 | | |
| | 1x16 | | 0.3 | | |
| | 1x32 | | 0.3 | | |
| | 1x64 | | 0.3 | | |
| Return Loss | | | 50 | | dB |
| Directivity | | | 55 | | dB |
| Power Handling | | | 300 | | mW |
| Working Temperature | | -40 | | 85 | °C |
| Storage Temperature | | -40 | | 85 | °C |
| Fiber type | | Corning SMF28 | | | |
| Connector Type | | Custom specified | | | |

Notes:

- [1]. Measured without connectors at room temperature
[2]. For devices with connectors, add 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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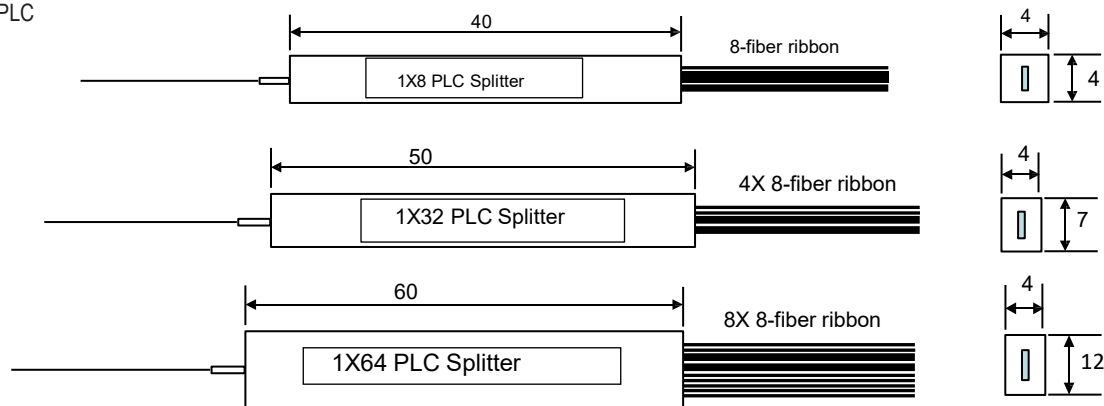
1xN SM PLC Splitter Module



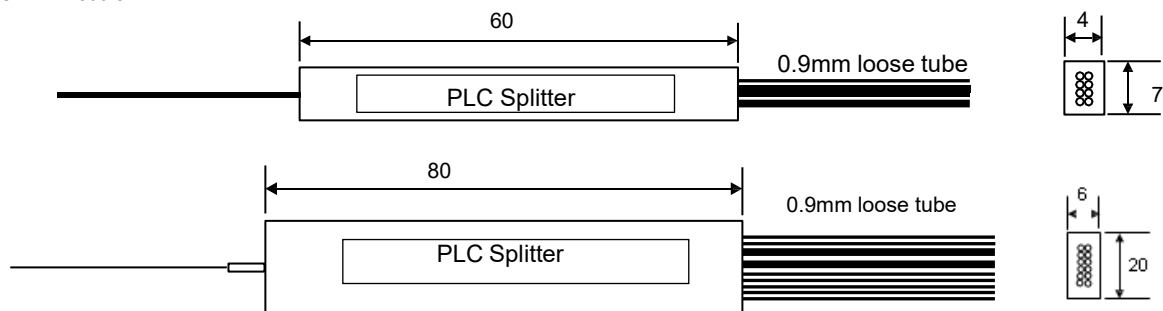
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Mechanical Dimensions (mm)

■ Standard PLC



■ PLC Mini-Module



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

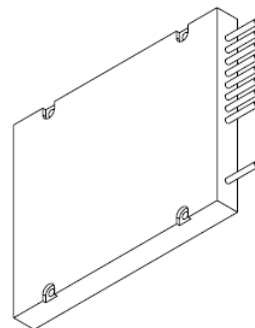
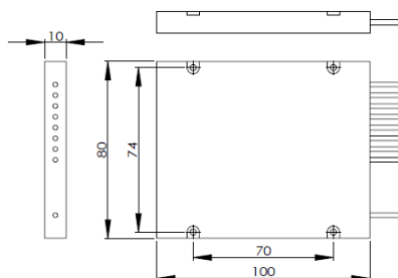
1xN SM PLC Splitter Module

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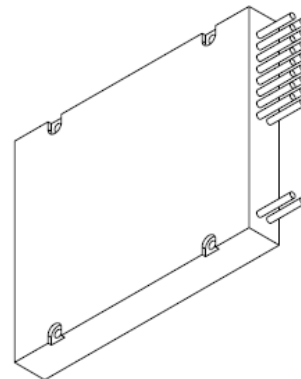
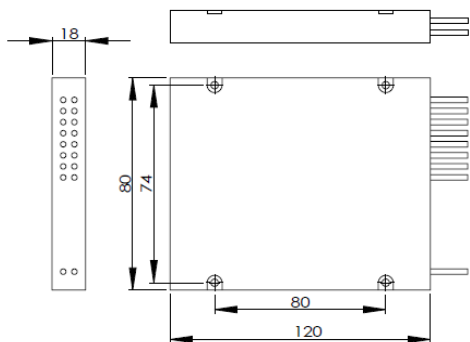
Mechanical Dimensions (mm)

■ PLC Module

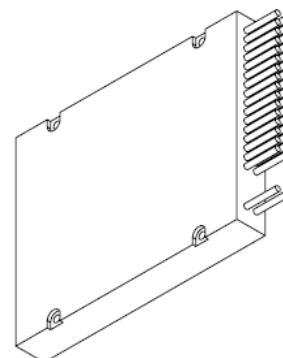
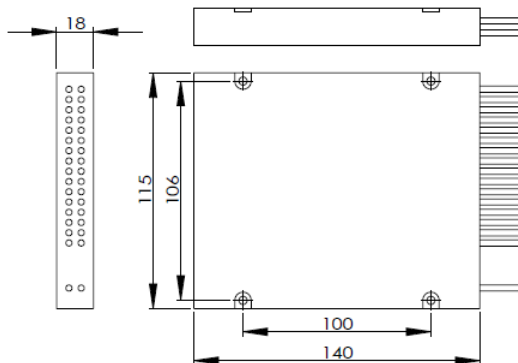
100 x 8 x 10



120 x 80 x 8



140 x 115 x 18



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

1xN SM PLC Splitter Module

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Ordering Information

| | A | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------|--|---|---|--|--|---|---|--------------------------|
| Prefix | Wavelength | Port | Package | Fiber Type | Fiber Length | Input Connector | Output Connector | |
| PSM1- | 1310 = 1 1550 = 2 C+L = 6 Special = 0 | 1x2 = 02 1x4 = 04 1x8 = 08 1x16 = 16 1x32 = 32 1x64 = 64 | Standard = 1 Mini module = 2 Module = 3 Aerospace ^[1] = A | 250um = 1 900um tube = 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 | |

[1]. Aerospace-grade package featuring an aluminum metal casing filled with a specially formulated RTV compound that is both vibration-resistant and thermally conductive, specifically designed to endure repeated thermal shock cycles from -45°C to 90°C.

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 handling by expanding the core side at the fiber ends.