# PLC Splitters

PLC Splitters serve as branching tools that facilitate the distribution of optical signals to multiple destinations for further processing. Within optical networks, there's a frequent need to divide one optical signal into numerous identical ones or amalgamate multiple signals into a solitary one. A PLC Splitter, which stands for Planar Lightwave Circuit splitter, represents a category of optical power management equipment produced through the utilization of silica optical waveguide technology.

Designed for applications in FttX Passive Optical Networks, CWDM, DWDM, and optical cable TV systems, the PLC Splitter (Planar Lightwave Circuit Splitter) is engineered to effectively distribute signals from the Central Office to multiple premises. Our PLC Splitter exhibits exceptional performance across diverse temperatures and wavelengths, delivering advantages such as minimal insertion loss, low polarization dependent loss (PDL), remarkable uniformity, and low return loss. It's worth noting that these splitters are compatible with a wide range of working wavelengths, spanning from 1260nm to 1620nm.

We offer a variety of configurations, including 1x2, 1x4, 1x8, 1x16, all the way up to 1x64 PLC Splitters, as well as 2x2, 2x4, 2x8, 2x16, extending to 2x32 PLC Splitters.

Our offerings encompass a diverse array of PLC Splitters, complete with a selection of Fiber Connectors and varying Fiber cable lengths to cater to your specific needs. Additionally, we are equipped to accommodate custom packaging and metal fittings, ensuring a tailored solution that aligns with your requirements
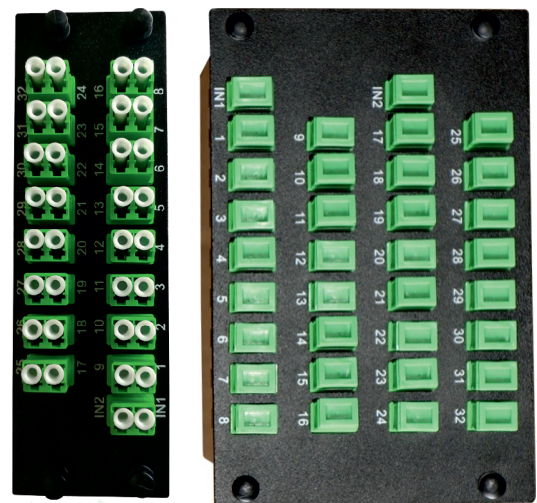
## Features

- Environmentally stable
- Easy installation
- Custom-Defined Specification
- Low insertion Loss
- High uniformity

## Application

- FttX networks
- Long-Haul Tele/Data Communications
- Fiber Optic Equipment and Systems
- CATV Systems
- Fiber Sensors



## 1xN PLC Splitter

Crafted through a distinctive silica glass waveguide process, the 1xN PLC splitter embodies exceptional attributes such as minimal Insertion Loss, low Polarization Dependent Loss, and elevated port uniformity. These 1xN PLC Splitters are offered in configurations of 8, 16, and 32 channels, and the connector type can be tailored according to customer preferences.
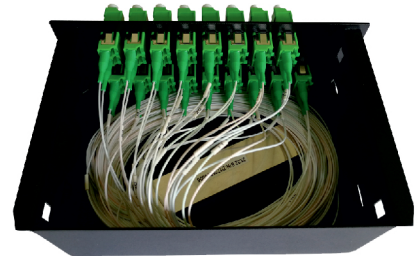
| Features | 1x2 | 2x2 | 1x4 | 2x4 | 1x8 | 2x8 | 1x16 | 2x16 | 1x32 | 2x32 | – | 2x64 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Operating Wavelength (nm) | 1260 ~ 1650 | | | | | | | | | | | |
| Insertion Loss (dB)P/S (Grade) | 3.8/4 | 4.0/4.2 | 7.1/7.3 | 7.6/7.8 | 10.2/10.5 | 11.0/11.2 | 13.5/13.7 | 14.4/14.6 | 16.5/16.9 | 17.5/17.9 | 20.5/21.0 | 21.0/21.5 |
| Loss Uniformity(dB) | 0.4 | 0.6 | 0.6 | 1 | 0.8 | 1.2 | 1.2 | 1.5 | 1.5 | 2 | 2 | 2.2 |
| Return Loss (dB)P/S (Grade) | 55/50 | | | | | | | | | | | |
| Loss Uniformity(dB) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.25 | 0.3 | 0.3 | 0.4 | 0.35 | 0.4 |
| Directivity (dB) | 55 | | | | | | | | | | | |
| Wavelength Dependent Loss(dB) | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Loss Uniformity(dB) | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Operating Temperature(°C) | -40~85 | | | | | | | | | | | |
| Storage Temperature(°C) | -40~85 | | | | | | | | | | | |
| Module Dimension (mm)(L×W×H) | 100×80×10 | | | | | | 120×80×18 | | | 140×115×18 | | |



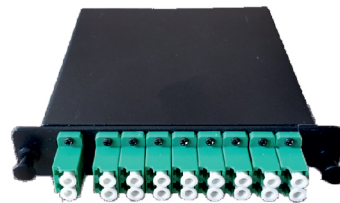**2x32 SC/APC Splitter module**



**2x32 LC/APC Splitter modules, Closed View**



**2x32 LC/APC Splitter modules, open view**



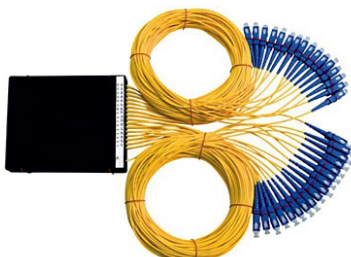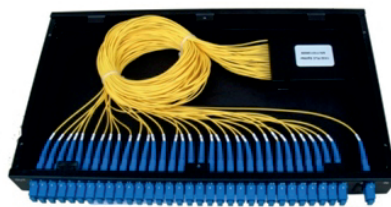**2x2 LC/APC splitter modules**
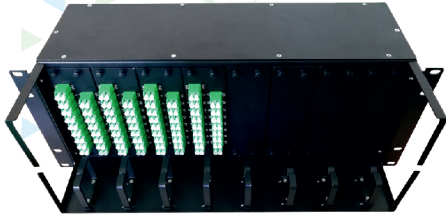


**2x16 LC/APC splitter modules**

# Economic Selection



**Optical Splitter**



**Rack mounted panel with splitter**

**Structured Cabling Solution**

# Splitter Enclosures 19"



Top view



Side view

The Rack Mount Fibre Splitting Enclosure serves as a consolidated module designed for fibre management, offering protective capabilities and a housing for the PLC Splitter. Constructed from lightweight yet robust rolled steel, this patch panel ensures durability.
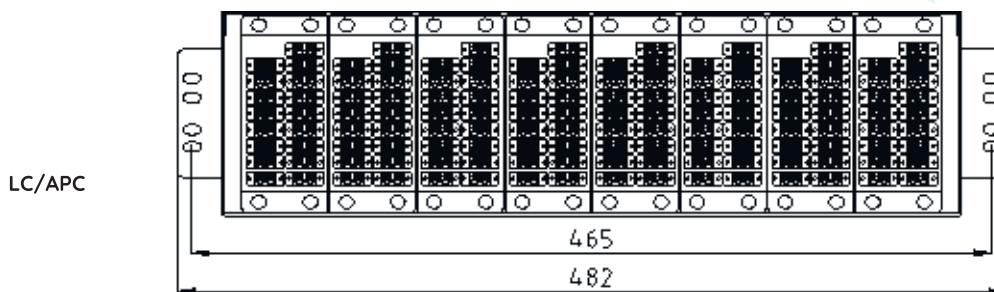
The splitters come pre-loaded with either LC/APC or SC/APC type adapters, while the PLC Splitter needs to be acquired independently. The splitters are also accessible with pre-loaded LC or SC type adapters.

The complete PLC Splitter unit is enclosed within a metal casing, simplifying its installation in standard fiber patch panels or fibre setups. The metal box is equipped with pre-terminated fibre adapters, ensuring swift and dependable connections with subscribers or other devices.
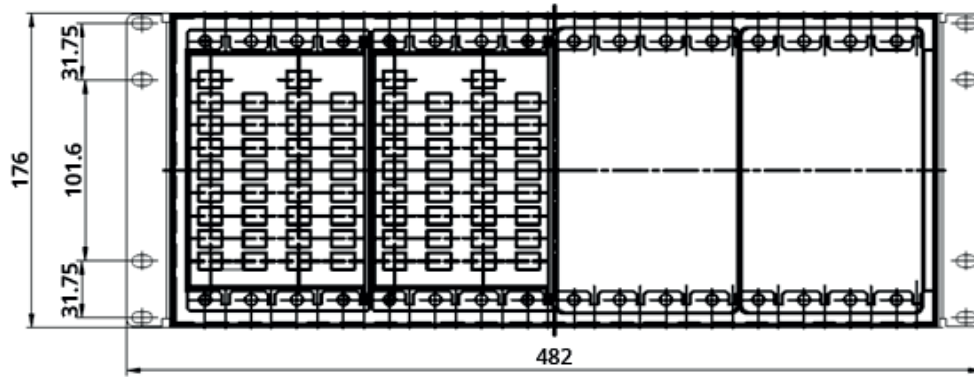
## Features

- Loaded with PLC Splitter
- Customized design available upon request
- Compact Design
- Mount to standard EIA 19 " rack rails
- Steel construction with Black Powder Coating
- Ensure signal integrity, proper cable routing, bend radius control and cable protection
- Provides higher patch field density in fewer rack units saving valuable space
- Assures flexibility and ease in network deployment for moves, adds, and changes
- Provides a complete system solution for connectivity
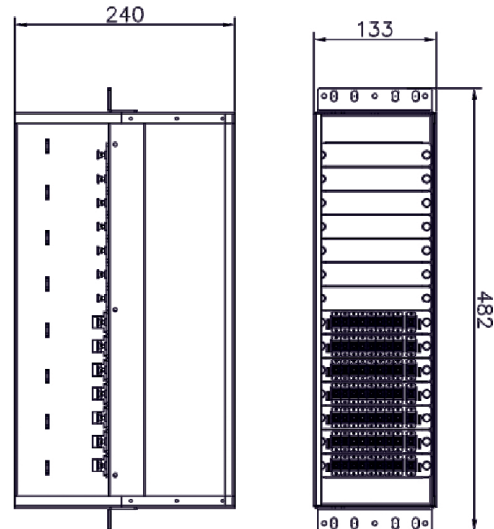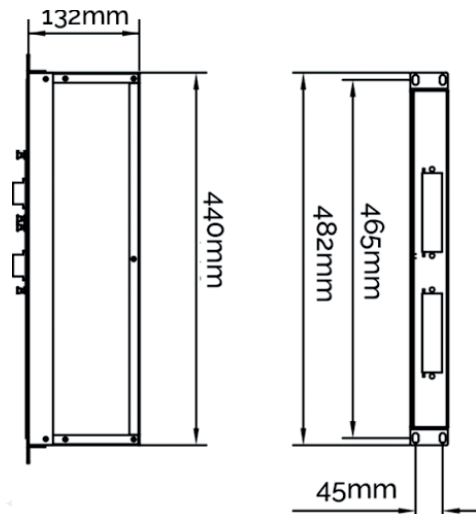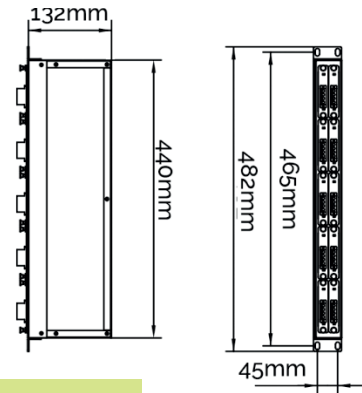
## Technical Drawings, 4U



LC/APC

465

482

**RITCHFIELD**
Designed to perform.

SC/APC

176
31.75
101.6
31.75
482

## 2X16 LC/APC splitter module, 3U

240

133

482

## 2X16 LC/APC splitter module, 1U

132mm

440mm

482mm

465mm

45mm

# RITCHFIELD
Designed to perform.

# 2X2 LC/APC splitter module, 1U

132mm

440mm

482mm

465mm

45mm

# Ordering Information

## PLC Splitter

| Part Number | Product Description |
|---|---|
| RF2A-SERMLA208-1U | 19" Rack Mount Optical Panel with LC/ACP splitters and adaptors 2x8, 1U |
| RF2A-SERMLA216-1U | 19" Rack Mount Optical Panel with LC/ACP splitters and adaptors 2x16, 1U |
| RF2A-SERMLA232-1U | 19" Rack Mount Optical Panel with LC/ACP splitters and adaptors 2x32, 1U |
| RF2A-SERMSA208-1U | 19" Rack Mount Optical Panel with SC/ACP splitters and adaptors 2x8, 1U |
| RF2A-SERMSA232-1U | 19" Rack Mount Optical Panel with SC/ACP splitters and adaptors 2x32, 1U |
| RF2A-MSLA202 | LC/APC Module with splitter and adaptors 2x2 for 1U chassis |
| RF2A-MSLA208 | LC/APC Module with splitter and adaptors 2x8 for 1U chassis |
| RF2A-MSLA216 | LC/APC Module with splitter and adaptors 2x16 for 1U & 3U chassis |
| RF2A-MSLA232 | LC/APC Module with splitter and adaptors 2x32 for 4U chassis |
| RF2A-MSSA208 | SC/APC Module with splitter and adaptors 2x8 for 1U chassis |
| RF2A-MSSA232 | SC/APC Module with splitter and adaptors 2x32 for 4U chassis |

## Enclosures

| Part Number | Product Description | Max. splitter module capacity | Max. core capacity | Depth |
|---|---|---|---|---|
| RF2A-CHLA02-1U | 19" Chassis to accommodate 2x2 LC/APC splitter module, 1U | 2x2 LC/APC - 10 Nos | 20 | 132 mm |
| RF2A-CHLA08-1U | 19" Chassis to accommodate 2x8 LC/APC splitter module, 1U | 2x8 LC/APC - 2 Nos | 16 | 132 mm |
| RF2A-CHLA16-1U | 19" Chassis to accommodate 2x16 LC/APC splitter module, 1U | 2x16 LC/APC - 2 Nos | 32 | 132 mm |
| RF2A-CHLA16-3U | 19" Chassis to accommodate 2x16 LC/APC splitter module, 3U | 2x16 LC/APC - 14 Nos | 224 | 240 mm |
| RF2A-CHSA08-1U | 19" Chassis to accommodate 2x8 SC/APC splitter module, 1U | 2x8 SC/APC - 2 Nos | 16 | 260 mm |
| RF2-CHLS32-4U | 19" Chassis with cable manager rings to accommodate 2x32 LC/APC or 2x32 SC/APC splitter module, 4U | 2x32 LC/APC - 8 Nos<br>2x32 SC/APC - 4 Nos | 256<br>128 | 260 mm |

* Customised design available upon request.

## Blank Plates

| Part Number | Product Description |
|---|---|
| RF2A-BPL02-1 | Blank plate for RF2A-CHLA02-1U |
| RF2A-BPL08-1 | Blank plate for RF2A-CHLA08-1U |
| RF2A-BPL16-1 | Blank plate for RF2A-CHLA16-1U & RF2A-CHLA16-3U |
| RF2A-BPS08-1 | Blank plate for RF2A-CHSA08-1U |
| RF2A-BPLS32-1 | Blank plate (150x53mm) for RF2A-CHSLA32-4U |
| RF2A-BPLS32-2 | Blank plate (150x106mm) for RF2A-CHSLA32-4U |

Structured Cabling Solution