

## Article Overview

Installing a PLC splitter requires careful handling, proper placement, and clean connections to ensure optimal optical performance and network reliability.

### Step 1: Pre-Installation Checks

Before starting, verify the following:

- o Confirm the splitter type (1xN) and splitting ratio matches your network design .
- o Inspect the fiber pigtails and connectors for damage or contamination .
- o Ensure the installation environment is suitable, avoiding excessive dust, moisture, or vibration .

### Step 2: Handling the Splitter

PLC splitters are sensitive optical devices. Handle them gently:

- o Avoid bending the fiber beyond its minimum bend radius.
- o Keep the splitter in its protective casing until installation.
- o Use gloves or clean hands to prevent contamination .

### Step 3: Placement in Distribution Boxes or Racks

- o For FTTH distribution boxes, route fibers carefully to prevent sharp bends and stress points .
- o For rack-mounted splitters, such as 1U LGX boxes, secure the splitter in the slide-out chassis or directly in the rack .
- o Position the splitter close to the Optical Line Terminal (OLT) to minimize signal loss .

### Step 4: Connector Management and Cleanliness

- o Clean all connectors with appropriate fiber cleaning tools before mating .
- o Avoid touching the fiber endfaces.
- o Use dust caps on unused ports to prevent contamination .

### Step 5: Splice-Type vs Pre-Terminated Installation

- o Pre-terminated splitters reduce field splicing and installation time, ideal for large-scale deployments .
- o Splice-type splitters require fusion splicing to connect pigtails to the network fibers, offering flexibility in custom installations .

# How to set up a PLC splitter

## Step 6: Outdoor Installation Considerations

- o Protect the splitter from moisture, temperature extremes, and UV exposure .
- o Use weatherproof enclosures if installed outdoors.

## Step 7: Testing After Installation

- o Perform optical power measurements to verify correct splitting ratios and low insertion loss .
- o Document baseline readings for future maintenance and troubleshooting .

## Step 8: Common Mistakes to Avoid

- o Excessive bending of fibers or improper routing.
- o Dirty or contaminated connectors.
- o Installing the splitter too far from the OLT or end-users, increasing signal loss .
- o Skipping pre-installation checks, leading to rework. By following these steps, you can ensure a reliable, high-performance PLC splitter installation suitable for FTTH or other passive optical networks.

FS 1U Rack Mount PLC Splitter can provide up to 64 ports on a 1U 19-inch rack, greatly

What is PLC Splitter? The Planar Waveguide Circuit splitter (PLC Splitter) divides one or two beams of light evenly

Learn how to properly install 1xN PLC splitters in FTTH networks to ensure stable optical

That's essentially what a PLC splitter [^2] does with light. The input light signal enters the waveguide. And the

This post looks at a specific type of PLS splitter known as a fiber optic PLC splitter. How do fiber optical PLC splitters

1xN PLC Splitter Installation Guide PLC splitters are a core element of FTTH access

This user manual provides installation instructions and compliance information for FS.COM's LGX Box PLC Splitters

Basics of the PLC Splitter Manufacturing Procedure Among the many miniature parts that make up a passive optical PLC splitter,

# How to set up a PLC splitter

PLC vs FBT Splitters: How to Choose Selecting the right splitter is crucial for building a reliable fiber optic network.

The single fiber link coming from the Central Office (CO) OLT is connected with the input of a splitter and is split into a given number

REMARQUE : Le Splitter PLC LGX Box 1U peut être installé dans le Châssis de Rack Coulissant du LGX 1U. NOTE: The 1U Rack

In this guide, you'll learn how fiber splitters function in PON networks, the difference between PLC and FBT types, and

We already showed you how to make FA. Today you can learn how we make PLC

Technicians should understand how these splitters work and how to properly install them for best results. This guide

I have a in-cabinet IO Link master that takes up a lot of room to where I'd like to split it between two drawings. I can

Manufacturing Process of PLC Splitters Sophisticated micro-fabrication techniques adapted from silicon chip

Web: <https://www.supremeacademicresearch.co.za>

