

Complete List of Power Grid Optical Cable Splitter Models



Overview

PLC Splitters Complete Guide for FTTH NetworksA complete engineering guide to PLC splitters in FTTH networks. Learn splitter ratios, insertion loss, cascading.

Key Takeaways

Optical cable splitters for power grid and FTTH networks are available in 1x2 to 1x128 configurations, including PLC and FBT types, with centralized and distributed deployment options. Splitter Types and Technologies1. Planar Lightwave Circuit (PLC) SplittersPLC splitters use silica optical waveguide technology for high-density, low-loss signal distribution.

Port counts range from 1x2, 1x4, 1x8, 1x16, 1x32, 1x64, up to 1x128. Symmetrical and asymmetrical splitters are available; asymmetrical models (e.g., 1x5) provide a high-power express port and multiple lower-power local ports for rural FTTH networks. Typical insertion loss: ≤ 3 .

8 dB; polarization-dependent loss (PDL): ≤ 0.2 dB. Operating wavelength: 1260–1650 nm; temperature range: -40°C to 85°C .

2. Fused Biconical Taper (FBT) SplittersFBT splitters are traditional fiber couplers suitable for smaller port counts (commonly 1x2, 1x4, 1x8). They are cost-effective for low-port-count applications but less uniform than PLC splitters for high port counts.



Split Ratios and Configurations

Standard split ratios: 1x2, 1x4, 1x8, 1x16, 1x32, 1x64. Odd split ratios: 1x3, 1x5, 1x7 are available for specialized applications. Cascaded or distributed splitting allows combining multiple splitters to achieve higher ratios, e.g., $1x2 + 1x16 = 1x32$.

Centralized splitters are located at a central office or cabinet, allowing reconfigurable jumper assignments. Distributed splitters are installed in closures or pedestals with fixed customer assignments.

Packaging and Deployment

Bare fiber splitters for integration into splice trays or optical distribution boxes. Connectorized splitters with SC, LC, or FC connectors for plug-and-play deployment. Splitter modules for inside plant (ISP) and outside plant (OSP) applications.

Compact housings suitable for high-density networks and harsh environments. Manufacturer Examples CommScope: Offers bare and connectorized PLC and FBT splitters, modules for ISP/OSP, and value-added module (VAM) systems. Fibrain: PLC splitters with port counts from 2 to 128, symmetrical and asymmetrical options, low PDL, and high thermal stability.

F

S: Bare fiber PLC splitters with customizable split ratios, compact housing, and wide operating temperature range. Corning: Provides indoor and outdoor splitters for FTTH, data centers, and enterprise networks, supporting multiple deployment scenarios. This list covers the full spectrum of optical splitter models suitable for power grid and fiber optic network applications, including high-port-count PLC splitters, low-port-count FBT splitters, and flexible deployment options for centralized or distributed architectures.

Article Content

PLC Splitters Complete Guide for FTTH Networks

A complete engineering guide to PLC splitters in FTTH networks. Learn splitter ratios, insertion loss, cascade design, FAT & closure integration,

DWDM / PLC / Coupler Splitters

This Fiber Optic FBT Splitter or Coupler (SM, 1310 ~ 1550 nm) is designed to combine or distribute optical signals from single/multiple inputs to single/multiple outputs bi-directionally in optical fiber

PLC Splitter

A Bare Fibre PLC Splitter is a passive optical device that splits an optical fiber signal into multiple channels. It is widely used in a variety of applications, including Fiber to the Home (FTTH), Fiber to

Optical Splitters for Central Office/Headend

CommScope offers a portfolio of bare and connectorized splitters/couplers in a wide range of styles and split ratios, and splitter modules for inside plant (ISP) and

PLC Optical Splitter Types

It mainly completes the termination of optical cables entering the community or building, and has functions such as optical fiber fixing, stripping, splicing, jumper, and splitting.

Sourcing PLC Splitter: A Complete Buyer's Guide

Learn everything about PLC Splitter: what they are, how they work, and how to source the right one for your network. Complete buyer's guide.

OSP Splitters | Amphenol Network Solutions

Amphenol Network Solutions offers a complete line of discrete Optical Splitter Components for a wide range of uses in various optical network designs. The product family includes splitters from 2 to 64

Optical Splitter Components

Optical Splitter Components Amphenol Broadband Solutions now offers a complete line of discrete Optical Splitter Components for a wide range of uses in various optical network designs.

Single mode splitters and couplers

DKT offers splitters and couplers that are often used to either divide or combine signals from different locations in an optical network. Read more here!

PLC Splitters | OEM Optical Communication Solutions | Corning

These devices enable more effective monitoring and management of optical networks. They are available as components, in our quick connect cassettes, or in custom modules and rack-mount

Introduction to Passive Optical Network Splitter Architectures

Fiber Broadband Association Technology Committee February 2025 The choice of splitter architecture for a passive optical network (PON) network can impact many aspects of a Fiber to the X (FTTx)

Optimize Your Selection: A Guide to Choosing the Right Optical Splitter

Choosing the right optical splitter can be confusing with so many options available. This guide will simplify the process and provide valuable insights to help you make the best decision.

Fundamentals of Optical Splitters » SENKO Advanced Components, Inc.

Optical splitters enable the distribution of light signals from a single input to various servers, ensuring efficient data routing within the data center infrastructure. Cable Television (CATV) Networks Optical

Fiber-optic splitter

Fiber-optic splitter A fiber-optic splitter, also known as a beam splitter, is based on a quartz substrate of an integrated waveguide optical power distribution device, similar to a coaxial cable transmission

PLC Splitter, Fiber Splitters, Always Ready for PON

FS PLC Fiber Optic Splitters, Bare/Blockless/ABS/LGX Splitter/Rack Mount Types, support 1xN light distribution, with low IL and PDL for high-reliability

Optical Splitters Demystified: The Silent Heroes Powering Your FTTH ...

Light, traveling through the core of a fiber optic cable, can be split by precisely fusing and tapering fibers together. This creates a region where the light signal is coupled and redistributed

Design and optimization of optical power splitters for optical access ...

The main challenges in the design of Y-branch optical splitters are the asymmetric split-ting ratio, (non-uniformity of splitting power), and the large size of the splitter structure. These parameters define the

Fiber Optic Splitters

Fiber optic splitters enable a signal on an optical fiber to be distributed among two or more fibers. Since splitters contain no electronics nor require power, they are an integral component and widely used in

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