Composition of PLC-type optical splitter

Article Overview

A PLC optical splitter consists of a planar waveguide chip, input and output fibers, and protective packaging, enabling precise and uniform optical signal distribution.

Core Components

1. PLC Chip (Planar Waveguide Chip): The heart of a PLC splitter is the planar waveguide chip, fabricated from silica glass on a silicon substrate using photolithography and etching techniques. This chip contains the waveguide network, which directs and splits the incoming optical signal into multiple outputs with high precision and uniformity . 2. Input Fiber: The input fiber channels the optical signal from the source into the PLC chip. It ensures efficient coupling of light into the waveguide network for subsequent splitting . 3. Output Fibers: Multiple output fibers carry the divided optical signals from the PLC chip to their respective destinations. The number of outputs depends on the splitter configuration, such as 1xN or 2xN, where N can range from 2 to 64 . 4. Packaging: PLC splitters are enclosed in various packaging types to protect the chip and fibers, including:

• Bare Fiber: Minimal packaging for integration into fiber management systems.
• Blockless: Compact design without a protective box, suitable for space-constrained installations.
• ABS Box: Enclosed in ABS plastic for outdoor or rugged environments.
• LGX Module: Standardized module for mounting in patch panels or distribution boxes.
• Rack-Mount: Designed for organized deployment in data centers or telecom rooms
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Article Content

The Definitive Guide to Fiber Optic PLC Splitter in 2022

In this Definitive Guide to Fiber Optic PLC Splitter, we have explained what a PLC splitter is, the different types of PLC

Different Package Type PLC Splitters

Different types of PLC splitters are designed to meet the different needs of OLT and ONT connection and splitting of optical signals in

PLC Splitters

Ce type de splitter est utilisé pour un câble de distribution à fibres optiques, ou parfois avec un câble souple ou plat.

Understanding PLC Splitters: Essential Components of Modern Fiber

This article delves into the intricacies of PLC splitters, exploring their working principles, diverse types, wide-ranging applications,

WDM Fiber, Wavelength Division Multiplexing | T & S Communication

Splitter & WDM T& S PLC optical splitters deliver low insertion loss and stable performance, making them ideal for FTTX signal

Planar Light Circuit (PLC) Optical Splitters

Corning''s Planar Light Circuit (PLC) splitters are fully passive optical branching devices that exhibit uniform signal-splitting for the

PASSIVE OPTICAL SPLITTER

Among the many miniature parts that make up a passive optical PLC splitter, there are three main components: the input and output

Understanding PLC Splitters in Fiber Optic Networks

Discover the importance and working principle of PLC splitters in fiber optic networks. Learn about the types, benefits,

What is a Fiber Optic PLC Splitter?

3 ber Optic PLC Splitter classification It can be used as a separate device in OLT nodes, optical distribution points, user access

1X2 PLC Splitter Cassette Type

Sinocomms manufactures various types of PLC Splitters, including steel tube type, ABS box type, cassette type, rack mount type,

Sourcing PLC Splitter: A Complete Buyer''s Guide

PLC Splitters are indispensable components in fiber optic networks, offering reliable, high-performance signal splitting

What is a PLC Splitter? Function & Fiber Use Cases

Unlike electrical splitters, PLC splitters manage light transmission within fiber optic cables. They are built using silica

PLC Optical Splitter Overview: Features, Applications, and Advantages

A PLC optical splitter is a passive optical device fabricated using silica waveguide technology on a planar substrate. It divides optical

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