

## Article Overview

A 1:4 optical splitter evenly divides a single input signal into four outputs, commonly used in China Unicom's fiber-optic networks for FTTH and PON deployments.

## Overview

A 1:4 optical splitter is a passive device that splits an incoming optical signal into four output signals, maintaining signal integrity across the outputs. These splitters are widely used in Passive Optical Networks (PON) to distribute signals from a central office to multiple subscribers efficiently .

## Types and Technology

### o PLC (Planar Lightwave Circuit) Splitters

- o Provide uniform splitting across the single-mode operating window (1260-1650 nm)
- o Available in cassette, ABS box, steel tube, rack mount, and LGX types
- o Use bend-insensitive G.657.A fibers to minimize bending loss and protect against tight bends down to 7.5 mm radius
- o Typically equipped with SC/APC or LC/APC connectors for easy integration

### o Fiber Optic Couplers

- o Split a single input signal evenly into four outputs using cascaded 50:50 couplers
- o Available in narrowband, dual-window, and wideband configurations with bandwidths ranging from +-15 nm to +-100 nm
- o Housed in compact enclosures (e.g., 100 mm x 80 mm x 10 mm) with mounting options

### o High-Speed PM Fiber Splitters

- o Designed for polarization-maintaining fibers
- o Can achieve custom splitting ratios and bidirectional operation
- o Solid-state, all-crystal designs for long lifetime and fast switching

## Key Specifications

- o Split Ratio: 1:4 (equal or custom ratios available)
- o Insertion Loss: Typically low, around 1-2 dB for PLC splitters
- o Uniformity: High, ensuring minimal power deviation between outputs
- o Wavelength Range: 1260-1650 nm for single-mode PLC splitters; specific couplers may have narrower ranges
- o Connector Types: SC/APC, LC/APC, or FC/APC depending on deployment
- o Environmental Performance: RoHS compliant, low PDL, low PMD, suitable for uncontrolled environments

## Applications

- o FTTH (Fiber to the Home) networks
- o PON (Passive Optical Network) distribution
- o Telecom and broadband networks for China Unicom
- o Data centers requiring signal splitting for multiple endpoints

## Installation Notes

- o PLC splitters are factory-tested with detailed test reports for insertion loss, uniformity, and wavelength performance
  - o Can be installed in outdoor or indoor environments depending on packaging
  - o Bend-insensitive fibers reduce the risk of signal degradation in tight installations
- In summary, a China Unicom 1:4 optical splitter is a reliable, low-loss device designed to distribute optical signals efficiently across multiple outputs, with PLC technology being the most common choice for modern PON networks.

Our Optical Splitter offers exceptional quality within the Fiber Optic Equipment category. Selecting factory-priced fiber optic equipment

The 1x4 Steel tube PLC Splitter devices have high performance, over a wide wavelength range from

1X4 PLC Splitter Cassette Type Sinocomms manufactures various types of PLC Splitters, including steel tube type, ABS box type,

This article has reviewed some information about the split ratios and splitting level of fiber optic splitters. It is very

The document contains tables listing the insertion loss in dBm for various splitting ratios of an optical splitter, ranging from 1% to

The 1&#215;4 Planar Waveguide Optical Splitter supports an operating wavelength of 1260-1610 nm, making it compatible with all

The optical splitter is an optical power distribution device that splits one optical signal into multiple optical fiber signals

Gpon 1 4 Fiber Optic Splitter, OEM 1X2 PLC Fiber Optic Splitter Box, 4 Way 144 Core Splitter, Find Details and Price about 1X16

# China Unicom optical splitter 1 4 ratio

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

Fiber Optic Splitter 1#215;4 PLC (Planar Lightwave Circuit) Splitters are designed for single-mode applications

The cascaded approach uses multiple splitters in "stages" to divide the signal--for example, a 1:4 splitter (Stage 1)

A 1\*4 optical splitter is a crucial component in fiber optic networks, allowing a single optical input to be split into four outputs. This

View results and find china unicom broadband optical splitter socket diagram datasheets and circuit and application notes in pdf format.

Maximize broadband and CATV network performance with this 1x4 PLC Fiber Splitter. Compact, connector-free, and designed for

Datasheet SPL2605 Compact Optical Splitter Datasheet Building an Efficient Fiber Infrastructure Overview The

Overview This optical splitter use Planer Light wave Circuit (PLC) technology for split ratio 2, 4, 8,16, 32 and 64. Optical splitter micro

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