Huawei Optical Splitter Selection



Overview

optical splitting in an ODF and FDT. The splitter has different splitting ratio which covers N:2 to N:64 (N=1, 2). requirements in different scenarios.

Key Takeaways

For most high-performance Huawei PON deployments, a PLC-type optical splitter like the SPL9101-P2032-SC or OSPL43201 is recommended due to its reliability, even signal distribution, and compatibility with various split ratios.

Types of Huawei Optical Splitters

Huawei optical splitters are primarily classified into PLC (Planar Lightwave Circuit) and FBT (Fused Biconical Taper) types.

PL

C Splitters: Provide equal-ratio splitting, high reliability, and support multiple output channels. They are ideal for large-scale GPON, XGPON, or XGS-PON networks where consistent signal quality is critical.

FB

T Splitters: Can support equal or unequal split ratios, but are limited in frequency range and may have higher insertion loss at certain wavelengths. They are more suitable for small-scale or specialized deployments. Recommended Huawei Splitter ModelsSPL9101-P2032-SC: A compact PLC splitter that supports 1: 32 splitting, suitable for PON networks requiring multiple ONTs per OLT port.

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OSPL43201: A PLC splitter with a 1: 4 split ratio, SC/APC termination, and G. 657A-compliant pigtail, ideal for high-performance fiber optic deployments with smaller split requirements.

PE

N Passive Aggregation Modules (HW-PEN-16LC-2KM / HW-PEN-16LC-10KM): These modules support 2: 8 splitting and uplink backup, are rack-mountable, and require no power supply, making them suitable for campus or enterprise networks.

Split Ratio Considerations

Choosing the right split ratio is crucial for network performance: 1: 32 – Best performance with minimal signal loss; ideal for high-bandwidth applications. 1: 64 – Balances coverage and signal strength; commonly used in standard GPON deployments. 1: 128 or 1: 256 – Maximizes coverage but may require optical amplification to maintain signal quality; suitable for XGPON/XGS-PON networks with strong signal management.

Deployment TipsPLC splitters are generally preferred for large-scale, high-density networks due to their uniform signal distribution and stability.

FB

T splitters may be used for small-scale or uneven splitting scenarios, but careful attention to wavelength compatibility is required. For enterprise or campus networks, consider passive aggregation modules for flexible installation and reduced fire risk. When cascading splitters, ensure the total split ratio does not exceed the OLT's maximum supported ratio to avoid excessive signal loss.

Conclusion

For most Huawei PON deployments, PLC-type splitters like SPL9101-P2032-SC or OSPL43201 are the best choice due to their reliability, even signal distribution, and compatibility with multiple split ratios. For campus or enterprise networks, PEN passive aggregation modules offer additional flexibility and safety. Always match the splitter type and ratio to your OLT model and network design to ensure optimal performance.

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Article Content

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optical splitting in an ODF and FDT. The splitter has different splitting ratio which covers N:2 to N:64 (N=1, 2). requirements in different scenarios. The input pigtail can be easily distinguished

Huawei Passive Optical Network (PON) Splitters: Empowering FTTH ...

This project highlights how Huawei''s PON splitter solutions can drive cost-effective and reliable FTTH expansions, even in densely populated areas where demand for high-speed internet is

OSPL43201

Access the detailed OSPL43201, Huawei OSPL Series Optical Splitter, 1:4 even split/SC-APC/1m pigtail datasheet and ensure you''re getting the best deal with our reliable delivery service.

Reasonable Split Ratios for Huawei OLT Service Board i.e.

Selecting the right split ratio for a Huawei OLT is essential for ensuring a stable and high-performance fiber network. While 1:64 is a common industry standard for balanced performance,

Huawei OSPL3A100 2:32 SC/UPC G.657A 1.5m Optical Splitter

Huawei OSPL3A100 is an operator-grade bare optical splitter designed for FTTx and GPON/EPON access networks. This PLC (Planar Lightwave Circuit) splitter provides a 1:32 split ratio with low

Huawei SPL9101-P2032

Optical splitters are classified into fused biconical taper (FBT) and planar lightwave circuit (PLC) types based on the production processes. A simple understanding

Huawei PON SFP Modules | GPON XG-PON XGS-PON & 50G-PON

Whether operators are expanding GPON networks, increasing splitter ratios, or preparing for 10G PON migration, Huawei PON SFP modules provide reliable, cost-effective, and future-ready

(Video) What is an optical splitter (SPL) v2.0

Support Documentation Optical Access EA5800 Series OLT (X17/X15/X7/X2) SmartAX EA5800 Training Materials Training Multimedia

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SPL2605 is a compact optical splitter datasheet by Huawei, providing technical specifications and features for efficient fiber optic network solutions.

OSPL43201

The Huawei OSPL43201 is a carrier-grade bare optical splitter designed for FTTx, campus, and metro access networks. Using PLC (Planar Lightwave Circuit) technology with a 1:4 even split, this

Huawei Optical Splitter Products Price and Specs

Check huawei optical splitter products price and specs at router-switch , get a brand new huawei optical splitter with low price and fast shipping.

Huawei SPL9101-P2032

High quality Huawei SPL9101-P2032- SC/UCP 2/32 Compact Optical Splitter 45200059 SPL1202 SPL2601 SPL1101 SPL2605 SPL9101 SPL9102 from China,

ODN/ORP Visualization

In Huawei pre-connected networking mode with uneven optical splitting: QuickODN resource information can be recorded and visualized. The ODN Mobile app can scan codes to quickly collect ODN/ORP

Huawei''s ODN 3.0: Transforming FTTH Networks

Huawei''s ODN 3.0 solution enhances fiber network construction through two transformative technologies: uneven optical splitting and pre-connection, which improve efficiency and reduce costs.

1x5 Huawei FTTR Fiber Optic Gpon PLC Splitter

The FTTR GPON PLC Splitter is an integral component of Huawei''s FTTR solutions.This splitter exemplifies the convenience of a plug-and-play device.

How to use optical splitter to deal with the problem that sig optical ...

1. Can use active optical splitter having optical power amplification function, usually use the device of Wuhan Guanxun company. 2. Replace optical module of routers, increase device

How protection path switchover works in Huawei DWDM

The control and communication module compares the optical power of the two channels of optical signals, and controls the operation of the optical switch based on the optical power. In this

Ultimate Guide to Optical Splitters for FTTH & GPON

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Master optical splitter selection for FTTH & GPON networks. Compare PLC vs FBT, analyze insertion loss charts, and optimize your ODN architecture today.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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