

Article Overview

Selecting a Huawei optical splitter requires considering split ratio, splitter type, insertion loss, wavelength, connector type, and deployment scenario to ensure optimal network performance.

Key Selection Parameters

1. Split Ratio The split ratio determines how many Optical Network Terminals (ONTs) can share a single Optical Line Terminal (OLT) port. Common ratios include 1:32, 1:64, 1:128, and 1:256. Lower ratios (e.g., 1:32) provide better signal quality and higher bandwidth per user, suitable for high-demand applications. Higher ratios (e.g., 1:128 or 1:256) maximize coverage but increase signal attenuation, requiring careful planning or optical amplification in GPON/XGPON deployments. Multi-level splitting can be used to achieve the desired total split ratio by cascading splitters. 2. Splitter Type Huawei optical splitters are typically Planar Lightwave Circuit (PLC) or Fused Biconical Taper (FBT):

- o PLC splitters: Offer precise, even splitting with low insertion loss, compact size, and support for high split ratios (1x32, 1x64). Ideal for modern FTTH networks.

- o FBT splitters: Simpler and cost-effective for small split ratios (1x2, 1x4), but less uniform and higher loss at larger splits.

3. Insertion Loss Insertion loss affects signal strength. Huawei splitters are tested at 1310/1550 nm, and the loss includes connector contributions. Lower insertion loss is critical for maintaining signal quality, especially in high split ratio deployments.

4. Wavelength Compatibility Ensure the splitter supports the network's operating wavelengths, typically 1310 nm for upstream and 1490/1550 nm for downstream in GPON/XGPON networks.

5. Connector Type and Pigtail Huawei splitters come with SC/APC or SC/UPC connectors and pigtails of varying lengths (e.g., 0.9-1 m). Color-coded input/output pigtails simplify installation and reduce errors.

6. Deployment Scenario

- o Centralized splitting: One-level splitter (e.g., 1x32) in a Fiber Distribution Hub (FDH) for dense urban areas.
- o Cascaded splitting: Two-level or multi-level splitters for suburban or rural areas to extend coverage while managing signal loss.

- o Compact design: For enterprise campuses or metro networks, compact splitters like the OSPL43201 reduce cabinet space and installation effort.

7. Material and Environmental Considerations Huawei splitters are made of PC+ABS/PPO materials for corrosion resistance and durability in outdoor or indoor environments.

Practical Recommendations

- o Use PLC splitters for high split ratios and uniform performance.

- o Keep split ratios within recommended limits (e.g., 1:32-1:64 for GPON) to avoid excessive signal loss.

- o Consider multi-level splitting for large coverage areas to balance performance and cost.

- o Verify connector cleanliness and proper installation to minimize insertion loss.

- o Match splitter specifications to OLT board capabilities (e.g., GPFD, GPHF, CGHF) for optimal network



Huawei Optical Splitter Parameters

efficiency . By carefully evaluating these parameters, Huawei optical splitters can be selected to ensure reliable, high-performance FTTH or PON deployments.

ODN SPL12: Access product manuals, HedEx documents, product images and visio stencils.

1. Can use active optical splitter having optical power amplification function, usually use the device of Wuhan Guanxun

Check Huawei OSPL43201 product detail and price trend at itprice .

If the upstream optical power is used for calculating the optical attenuation of an optical splitter, only the ONU to be tested is powered

The Huawei OSPL43201 is a carrier-grade bare optical splitter designed for FTTx, campus, and metro access networks. Using PLC

Shop high-quality Huawei optical splitters for reliable fiber optic networks. Compact designs and advanced PLC

The SPL2605 can be independently integrated into an FDT or FAT, or encapsulated in a tray-mounted splitter SPL9201 for optical

Huawei Technologies Co Ltd. launched what it claims is the industry's first intelligent optical splitter for passive optical networks

High quality Huawei 1:8 1/8 PLC Splitte SPL9102-P1008 -1.5M-40*4*4mm 45200073 Bare Optical Splitter 1:2 PLC Splitte 1:4 1:16

3. What are the main parameters that determine the performance of a fiber optic splitter? The performance of a fiber optic splitter is

Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters,

S0316 Datasheet 04.pdf S0316 Datasheet 04.pdf Related products and solutions: Optical Networking Share Single

The greater the return loss, the better, to reduce the impact of reflected light on the light source and system. In addition, uniformity,

Huawei Optical Splitter Parameters

Get technical support for optical power planning with Huawei's comprehensive guide and solutions tailored for enterprise needs.

Made of PC+ABS/PPO material in order to meet strong corrosion resistant performance and light quality. Structure. The preceding

High quality Huawei SPL9101-P2032- SC/UCP 2/32 Compact Optical Splitter 45200059 SPL1202 SPL2601

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