

Splitter Pigtail Parameters



Article Overview

Splitter pigtails are fiber optic components that combine a splitter with pre-terminated fiber pigtails, with parameters including split ratio, connector type, pigtail length, insertion loss, and return loss.

Key Parameters

1. **Split Ratio:** Splitters divide a single optical signal into multiple outputs. Common ratios include 1×2, 1×4, 1×8, 1×16, 1×32, and higher. Symmetrical splitters distribute power evenly, while asymmetrical splitters allocate more power to a primary port and less to secondary ports for specialized FTTH applications .
2. **Connector Type:** Pigtails are pre-terminated with connectors such as SC/UPC, SC/APC, LC, ST, or FC. SC/UPC connectors are widely used due to their high return loss ($\sim >50$ dB) and low back reflection, suitable for enterprise and legacy telecom networks . APC connectors offer even higher return loss (>60 dB) for applications sensitive to reflections. Connector polish type (UPC vs APC) affects optical performance and network stability .
3. **Pigtail Length:** Standard pigtail lengths vary from 0.5 m to 2 m, but custom lengths are feasible depending on deployment needs. Longer pigtails are often used to facilitate splicing in closures or ODFs .
4. **Insertion Loss:** Typical insertion loss depends on the split ratio and technology. For example, a 1×16 PLC splitter may have a maximum insertion loss of 13–14 dB, with channel-to-channel uniformity around 1–1.2 dB . Lower insertion loss improves optic...

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It's a kind of ODN product suitable for PON networks that can be installed in the pigtail cassette, test instrument and WDM system, it

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Each Splitter will be conditioned by unit. The Splitter is maintained in the packaging and the fibers are arranged by respecting the

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Pigtailed vs. Splitters: Key Components in Fiber Optic Networks

Pigtails facilitate secure and reliable connections between fiber optic cables and equipment, while splitters efficiently

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What is a Fiber Optic Pigtail, and What Is It Used For?

Don't expose the pigtails to harsh environments; most pigtails are designed for indoor applications. Benefits of using a

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The Ultimate Engineering Guide to the SC/UPC 1×16 Pigtail Type

Pigtail splitters are preferred when installation space is extremely limited. Because they consist of a tiny steel tube and

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Optical-PLC-Splitter-Specification

Product Specification Optical PLC Splitter 1. Introduction 1.1 General This specification covers the standards and requirements for

Contact Us

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