Optical splitter used in OLT

Article Overview

Optical splitters divide a single OLT signal to multiple ONTs, with configuration depending on split ratios, splitter architecture, and OLT bandwidth management.

Split Ratios and Types

Optical splitters in PON networks divide the signal from an OLT into multiple outputs for ONTs. Common split ratios include 1x2, 1x4, 1x8, 1x16, 1x32, and 1x64, with combinations used to achieve the desired network coverage (e.g., a 1x4 followed by a 1x8 to reach 1x32) . Splitters can be:

• FBT (Fused Biconical Taper): Cost-effective, suitable for small splits like 1:2 or 1:4.

• PLC (Planar Lightwave Circuit): Provides uniform power distribution, ideal for large splits like 1:32 or 1:64 .

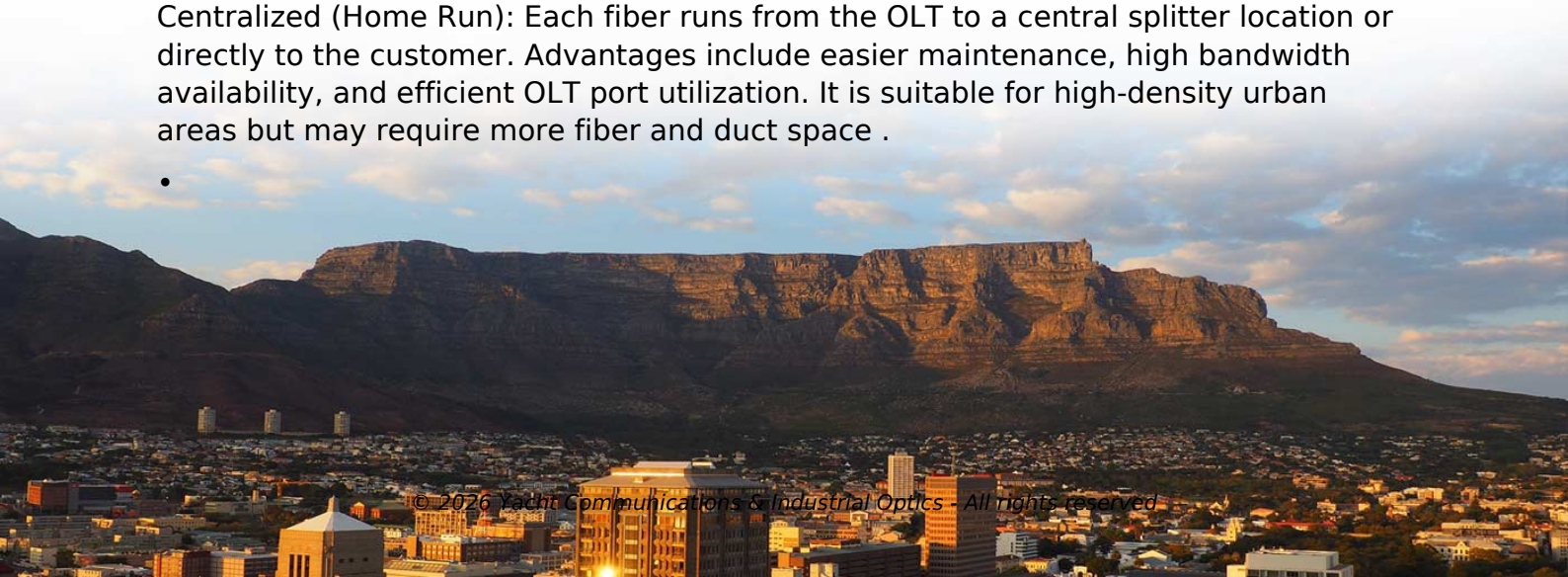
Splitter Architectures

Two main deployment architectures exist:

•

Centralized (Home Run): Each fiber runs from the OLT to a central splitter location or directly to the customer. Advantages include easier maintenance, high bandwidth availability, and efficient OLT port utilization. It is suitable for high-density urban areas but may require more fiber and duct space .

•



Article Content

Optical Splitters Demystified: The Silent Heroes Powering Your FTTH ...

An optical splitter is a passive device, but it doesn''t work alone. It relies on active equipment at both ends of the fiber

Application of Optical Splitter in FTTH Network

Centralized splitting means that the optical splitter between the optical line terminal (OLT) and the optical network unit

Introduction to Passive Optical Network Splitter Architectures

This involves having 2 or more splitter combinations to arrive at the target split ratio. A classic example is the use of a 1x4 and 1x8

What''s the OLT (Optical Line Terminal)?

OLT → Optical Splitter → ONTs → End Users Analogy: The OLT is like a traffic controller managing hundreds of cars (data packets)

PASSIVE OPTICAL SPLITTER

An optical splitter is an essential component used in an FTTH GPON where a single optical input is split into multiple outputs. This

The Working Principle and Application Scenarios of Fiber Optic Splitters

The working principle of fiber optic splitters is based on optical coupling and splitting . When a light signal enters the

What is OLT (Optical Line Terminal)? Types, Features & Applications

The full form of OLT is optical line terminal, which is a device used to connect the optical fiber and transfer signals. It''s

Optical Splitters: Split Ratios, Splitting Architectures & PON Network ...

By dividing a single optical signal from a central Optical Line Terminal (OLT) into multiple outputs for Optical Network

Optical Line Terminal (OLT) The Ultimate Guide

1. What is an OLT? An OLT (Optical Line Terminal) is the core device in a Passive Optical Network (PON) — the interface between

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: https://yachtchartercapetown.co.za
Email: info@yachtchartercapetown.co.za
Phone: +27 21 863 4927
Address: 1st Floor, The Towers, 1 St George's Mall, Cape Town, 8001, South Africa

This document is for informational purposes only. Specifications subject to change without notice.