

The optical module on the OLT



Article Overview

The optical module on an OLT is a key component that converts electrical signals into optical signals and enables communication with ONTs/ONUs over a Passive Optical Network.

Role of the Optical Module

In an Optical Line Terminal (OLT), the optical module—often a pluggable SFP (Small Form-factor Pluggable) module—is responsible for converting the electrical signals from the OLT's internal boards into optical signals suitable for transmission over fiber optic cables to subscriber endpoints (ONTs/ONUs) and vice versa . This module ensures that the Tx (transmit) and Rx (receive) wavelengths are correctly aligned for communication with the network terminals.

Placement and Integration

Optical modules are typically inserted into uplink or downstream interface boards of the OLT. Each OLT port may have its own optical module, which allows the OLT to manage multiple PON networks simultaneously. Depending on the OLT model, these modules can support different PON standards such as GPON, EPON, XG-PON, or XGS-PON, and each module may handle a specific split ratio, connecting up to 32, 64, or even 128 ONUs per port .

Functions and Features

- **Signal Conversion:** Converts electrical signals from the OLT into optical signals for fiber transmission and converts incoming optical signals back into electrical signals...

Article Content

What's the OLT/Optical Line Terminal?

The OLT/Optical Line Terminal, also known as optical line termination, is the endpoint hardware device in a passive optical network

OLT and ONT

OLT supports bandwidth allocation that allows to make smooth delivery of data float to the OLT, that usually arrives in bursts from

GPON OLT C+ Optical Module Spec Sheet

Features & Benefits Supports ITU-T G.984.2 GPON OLT C+ application Single fiber bi-directional data links with symmetric

Optical Line Terminal (OLT)

Both OLT and ONT are the modules of the passive optical network. And are present in the network to ensure smooth transmission

Optical line termination

An optical line termination (OLT), also called an optical line terminal, is a device which serves as the service provider endpoint of a

Contact Us

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