



Rebranded ONU Optical Network Unit SFP

Article Overview

Rebranded ONU SFP modules are compact GPON Optical Network Units that integrate full ONU functionality into a standard SFP form factor, enabling high-speed fiber access through existing Ethernet hardware.

Overview

Rebranded ONU SFPs, often called GPON ONU Stick modules, are designed to provide broadband fiber access while fitting into the SFP slot of switches, routers, or industrial devices. Unlike traditional ONUs that require external power and dedicated space, these SFP modules draw power directly from the host device and deliver up to 2.488 Gbps downstream and 1.244 Gbps upstream, compliant with ITU-T G.984 GPON standards . They are ideal for upgrading existing network infrastructure without replacing entire devices.

Key Features

- o Compact SFP Form Factor: Integrates ONU functionality into a small, plug-and-play module compatible with SFP slots .
- o High-Speed GPON Connectivity: Supports 2.5 Gbps downstream and 1.25 Gbps upstream, with network coverage up to 20 km and splitting ratios up to 1:128 .
- o Optical Transceivers: Equipped with Class B+ or C+ bidirectional optical transceivers, using 1490nm DFB lasers for downstream and 1310nm Burst Mode FP/DFB lasers for upstream .
- o Integrated PON SoC: Handles OMCI signaling, AES encryption, and Forward Error Correction (FEC) for secure and reliable service delivery .
- o Traffic Management & QoS: Supports dynamic bandwidth allocation (DBA), rate limiting, VLAN, ACL, and QoS prioritization, ensuring efficient bandwidth sharing and service quality .
- o Remote Management: Compatible with OMCI, standard OAM, and extended OAM protocols, allowing remote configuration, monitoring, and fault management .
- o Diagnostic Tools: Some modules include SFP loopback functionality for testing port integrity and internal circuitry without external fiber connections .

Applications

- o FTTx Networks: Residential and multi-dwelling unit fiber deployments.
- o 5G Wireless Backhaul: High-speed fiber links for small cell or macrocell connectivity.
- o Enterprise Networks: Upgrading switches and routers to GPON without additional ONU hardware.
- o Industrial Deployments: Compact, rugged SFP modules suitable for constrained environments.



Rebranded ONU Optical Network Unit SFP

Advantages Over Traditional ONUs

- o Space and Power Efficiency: Eliminates the need for external power adapters and bulky enclosures.
 - o Plug-and-Play Deployment: Instantly converts SFP-capable devices into GPON endpoints.
 - o Interoperability: Adheres to SFP MSA standards, ensuring compatibility across multiple vendors .
 - o Scalability: Supports multiple subscribers through high splitting ratios and long-distance coverage.
- Rebranded ONU SFP modules provide a cost-effective, flexible, and high-performance solution for modern fiber access networks, bridging the gap between traditional Ethernet hardware and GPON infrastructure while simplifying installation and management.

Most install an SFP PCIe card in their pfsense box and install XPON SFP modules in the SFP ports then go from there. They just

GPON SFP module is important part in GPON optical network. This post focus on GPON SFP wiki, GPON SFP Class B+ and Class C+.

GPON ONU Stick SFP with MAC: This stick-shaped SFP module is designed for GPON optical network units (ONUs) and includes a

On top of that, GPON SFP transceiver is an essential part of GPON system which is necessary both for optical

An Optical Network Unit, as a key node in a passive optical network, is responsible for the "last mile" of fiber optic

Optcore's OSP2G-GNU is a high performance and cost-effective

PON technologies, unlike Ethernet, are not P2P but one-to-many with two device types: ONU (Optical Network Unit)/ONT (Optical

The GPON ONU integrates GPON OMCI Stack and is fully compliant with ITU-T G.984 standards. The

The GPON ONU SFP transceiver provides an asymmetric 1.244Gbps upstream and 2.488Gbps downstream, reaching a link up to

The SFP ONU module is designed for user-side ONU (Optical Network Unit), providing connectivity to end-user

EPON (GEPON) SFP Optical Transceivers Deploy cost-effective and efficient Fiber-to-the-Home networks



Rebranded ONU Optical Network Unit SFP

with our range of EPON

On top of that, GPON SFP transceiver is an essential part of GPON system which is

Which Type of Optical Network Unit is Better for You? ONU devices can be classified into different types according to

An Optical Network Unit (ONU) is a critical device in fiber-optic networks, used to convert the optical signals from an Optical Line

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

GPON SFP is the optical module applied in OLT and ONT or ONU for passive optical networks. Read on to have a

Web: <https://www.millstraining.co.za>

