Enterprise-grade network optical port module



Overview

Huawei OptiXstar P813E-E ONU Huawei OptiXstar P813E-E is an Optical Network Unit (ONU) with eight GE ports that support Power over Ethernet (PoE) and Power.

Key Takeaways

Enterprise-grade optical port modules provide high-speed, reliable, and manageable connectivity for campus, data center, and carrier networks, supporting PoE, XGS-PON, SFP/SFP+, and redundant configurations. Key FeaturesHigh-Speed Connectivity: Modern enterprise optical modules support multi-gigabit speeds, including 10G uplinks and downlinks, SFP/SFP+ interfaces, and XGS-PON for symmetric 10Gbit/s performance, enabling dense deployment of devices such as 4K cameras and high-bandwidth applications (Huawei OptiXstar P813E-E, Adtran SDX 630 Series). Power over Ethernet (PoE/PoE+): Many enterprise modules integrate PoE or PoE+ support, allowing connected devices like IP cameras, access points, and VoIP phones to receive power directly through the network cable, simplifying deployment and reducing cabling complexity (Huawei OptiXstar P813E-E, Grandstream GWN7816P).

Redundancy and Reliability: Enterprise-grade modules often include hot-swappable power supplies, 1+1 redundancy, and Type B/C protection for dual-upstream XGS-PON, ensuring zero service interruptions and 24/7 uptime. This is critical for mission-critical enterprise and campus networks (Grandstream GWN7816, H3C S7500X-G). Management and Monitoring: Advanced modules support centralized management platforms, such as cloud-based GDMS or on-premise GWN Manager, SNMP monitoring, diagnostics, and automated failover, allowing IT teams to manage multiple switches or ONUs efficiently (Grandstream GWN7816, APCON INTELLATAP).

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Deployment Flexibility: Enterprise optical modules are designed for indoor and outdoor environments, with ruggedized options, compact SFP ONTs, and modular chassis systems for scalable deployment in campus networks, metropolitan area networks, or data centers (Adtran SDX 630 Series, APCON Taps).

Examples of Enterprise-

Grade Optical Modules

Huawei OptiXstar P813E-E: ONU with eight GE ports, PoE/PoE+ support, 10G symmetric uplink/downlink, suitable for campus and video backhaul scenarios. Grandstream GWN7816(P): 48-port Layer 3 managed switch with 6 SFP+ optical ports, PoE/PoE+/PoE++ support, hot-swappable power, and cloud/on-premise management.

Adtran SD

X 630 Series: High-capacity XGS-PON ONTs with multigigabit performance, VoIP integration, ruggedized outdoor units, and SFP+ downlink interfaces for enterprise deployments.

APCON INTELLATA

P: Managed optical taps for monitoring, packet aggregation, 10G to 1G rate conversion, and SNMP diagnostics while maintaining failsafe connectivity.

H3

C S7500X-G OLT: High-end multi-service OLT supporting GPON/XGSPON, multiple uplink rates (10G–100G), Ethernet service modules, and 1+1 backup for power and MPU, suitable for campus, MAN, and enterprise networks.

Deployment Considerations

When selecting an enterprise-grade optical port module, consider: Bandwidth requirements: Ensure uplink/downlink speeds match application needs.

Po

E requirements: Determine if connected devices require PoE/PoE+. Redundancy and uptime: Evaluate hot-swappable power, dual-upstream protection, and failover capabilities. Management capabilities: Choose modules compatible with centralized management and monitoring platforms.

Environmental conditions: Select ruggedized or outdoor-rated modules if needed. Enterprise-grade optical port modules are essential for building scalable, high-performance, and reliable networks that support modern enterprise applications, including HD video, VoIP, and high-density device deployments.

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Article Content

Huawei OptiXstar P813E-E ONU

Huawei OptiXstar P813E-E is an Optical Network Unit (ONU) with eight GE ports that support Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+), delivering high-quality voice, data, and

Huawei OptiXstar P613E-E ONU

Huawei OptiXstar P613E-E is an Optical Network Unit (ONU) designed for enterprise campus and video backhaul scenarios. It features eight GE ports that support Power over Ethernet (PoE) and Power

10GBASE-SR SFP Module Enterprise Class: Complete Guide

This article explains what a 10GBASE-SR SFP Module Enterprise Class is, how it works, how it differs from commercial and carrier-class optics, and how to choose the right module for enterprise

140W Optical Network Terminal (ONT140W)

The Tellabs 140W Optical Network Terminal (ONT) offers 4-port Gigabit Ethernet connectivity for the new enterprise LAN. The ONT can be integrated inside office furniture or mounted securely inside a

Alcatel-Lucent Enterprise: A comprehensive portfolio of Optical and ...

Alcatel-Lucent Enterprise network solutions ofer an extensive Ethernet portfolio including Data Centre (DC) core switches, access edge switches, and enterprise WLAN access points (APs) with PoE

GWN7816 (P)

The GWN7816 (P) are 48-port Layer 3 managed network switches that allow enterprises to build scalable, secure, and high-performance business networks that are fully manageable.

OEM SFP Modules Explained: Compatibility, Cost and Use Cases

Understand OEM SFP modules, pricing, compatibility, lifespan, and differences vs third-party optics. Learn what engineers actually use in networks.

40G QSFP+ Transceiver Modules | Optical

FS 40G QSFP+ optical transceiver module solutions offer a full range of QSFP+ modules from 150m to 80km reach, and used for high-density switching, routing

Cisco Optics | Transform Your Network

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Get the highest quality, performance-leading optical transceivers for any network architecture. Find the transceiver model to fit your network.

SFP28 25G SR Optical Modules: High-Performance Network Solution

The SFP28 25G SR optical module, a core component of 25G Ethernet, offers high performance, low power consumption, and high port density. It is widely used in data centers, enterprise networks, and

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Cisco 10GBASE SFP+ Modules Data Sheet

A broad range of industry-compliant SFP+ modules for 10 Gigabit Ethernet deployments in diverse networking environments. Product overview

Marvell Technology, Inc. | Essential technology, done right

Designed for your current needs and future ambitions, Marvell delivers the data infrastructure technology transforming tomorrow''s enterprise, cloud, automotive,

Ubiquiti Store United States

New Connectivity anywhere. Reliable 5G networking for home, business, and remote deployments.

What happened to the old Ziddu BlockChain and File Hosting website?

Ziddu has a lot of history which the website had been well known for multiple times. In this article, we are to share the history behind our domain.

Optical Access

Based on PON technology, passive all-optical network access solutions enable access by any media, tailored to enterprises, ISPs, and MSOs.

Intelligent IoT Solutions

IoT building blocks & gateways, cloud-based device management, automated downtime managers: Lantronix IoT products and services help you connect smart!

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters, common types,

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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