

Enabling the hyper-connected world



AMT

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H815M



H815M Small-Business and Mobile Backhaul xPON ONU

The H815M delivers XGS-PON or 10GS high-capacity business services and mobile transport over PON and point-to-point applications.

Features & Benefits

- + Supports 10Gbps/10Gbps (Downstream/Upstream) with pluggable SFP+ WAN interface
- + Four 10G SFP Ethernet interfaces
- + Two gigabit multi-rate 10/100/1000M Ethernet interfaces
- + High scalability of full-service solutions

The XGS-PON ONU (Optical Network Unit) H815M incorporates interoperability, key customers' specific requirements and cost-efficiency. The H815M supports the full Triple Play of services including voice, video, and high-speed internet access service. Compliant with standard OMCI definition, H815M is manageable at remote side and supports the full range FCAPS functions including supervision, monitoring and maintenance.

XGS-PON uplink port has SFP+ connector type and a high-speed optical access method that has been defined in ITU-T G.9807. This port is linked to OLT on upstream 10.3125 Gbps and downstream 10.3125Gbps.

The H815M is designed to provide a simple and cost-effective XGS-PON network connection and combines the benefits of high-speed XGS-PON technology and enables many interactive multi-media applications such as video conferencing and collaborative computing using fiber network.

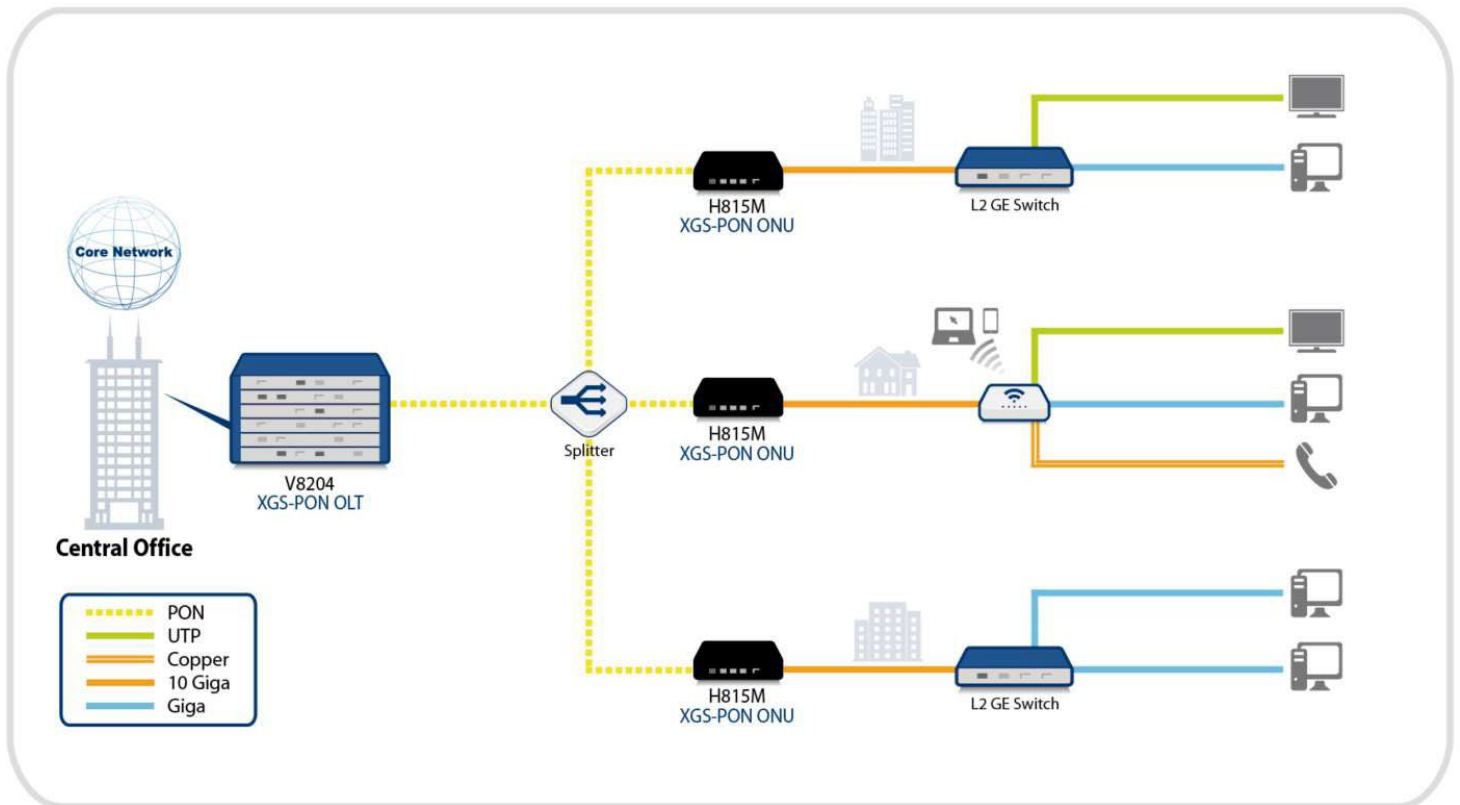
Advanced xPON 10G ONU H815M



Service Scenario for GPON/XGS-PON

A PON consists of an Optical Line Termination (OLT) located at the Central Office and a set of Multi Dwelling Units (MDUs) or Optical Network Terminals (ONTs) located at the customer's premises. Between them is the optical distribution network (ODN) comprised of fibers and passive optical splitters or couplers.

A splitter is a device that divides an optical signal into two or more signals. The OLT connects the PON to the IP network that controls and manages the PON clients. An MDU (ONT) connects the user-specific network to the PON. The ONT can be utilized by a single subscriber or used as a multi-dwelling gateway for a local network.



Reference Network Architecture

Advanced xPON 10G ONU H815M



Features, Protocols, Interfaces

System

- + XGS-PON Interface Capacity:
Up 10Gbps/Down 10Gbps
- + 10G Interface Capacity:
Up 10Gbps/Down 10Gbps
- + FTTx application

Interfaces

- + 2 ports 10/100/1000 Base-T (RJ-45)
- + 4 ports 10GBase-R (SFP+)
- + 1 port XGS-PON (SFP+)

XGS-PON

- + ITU-T G.9807.1 compliant
- + Forward Error Correction (FEC)
- + Multiple T-CONTs/GEM ports per device
- + Flexible mapping between GEM port and T-CONT
- + Dying Gasp

Quality of Service

- + HW-based internal IEEE 802.1p (CoS)
- + Strict Priority (SP)
- + 8 queues per port

Layer 2

- + Untagged port configuration
- + Standard Ethernet bridging
- + MAC address learning with auto aging
- + 802.3ad link aggregation

VLAN

- + VLAN port filtering
- + Destination address port filtering

Multicast

- + IGMP Snooping

Clock

- + IEEE 1588v2 BC/TC
- + Synchronous Ethernet (SyncE)
- + XGS-PON based Time Clock Transport
- + PTP BMCA (Both Direction)
- + External Clock

Management

- + SNMP/Telnet/TFTP/SSH/SFTP
- + Syslog volatile, non-volatile, remote

Physical & Environmental Specifications

Dimensions (W x H x D)	300 mm x 44 mm x 145 mm
Operating temperature	32~122°F (0~50°C)
Storage temperature	-4~158°F (-20~70°C)
Operating humidity	5 to 80 % (non-condensing)
DC power	48/60VDC/0.73A

LAN 1GE	2 x 10/100/1000 Base-T (RJ45)
LAN 10GE	4 x 10GBase-R (SFP+)
Optical line	1 x XGS-PON (SFP+)
Serial Interface	RS232 (RJ45-to-DB9)
Power consumption	20W

Ordering Information

Bases	
H815M	2 x 10/100/1000Base-T (RJ-45) 4 x 10GBase-R (SFP) 1 x XGS-PON (RJ-45) Fixed DC power

Interface Unit and Connector Specifications

The following different optical modules are available and can be inserted into the dedicated modules.

Module	Description
1GE Optical Module	
SFP-1G-SX	SFP 1GE SX - Wavelength: 850 nm / Distance: 550 m / Mode: Multi-mode - Connector: LC / Data rate: 1.25 Gbit/s / Core type: Dual Core
SFP-1G-LX	SFP 1GE LX - Wavelength: 1310 nm / Distance: 15 km / Mode: Single-mode - Connector: LC / Data rate: 1.25 Gbit/s / Core type: Dual Core
SFP-1G-ZX	SFP 1GE ZX - Wavelength: 1550 nm / Distance: 80 km / Mode: Single-mode - Connector: LC / Data rate: 1.25 Gbit/s / Core type: Dual Core
SFP-1G-SX	SFP 1GE SX - Wavelength: 850 nm / Distance: 550 m / Mode: Multi-mode - Connector: LC / Data rate: 1.25 Gbit/s / Core type: Single Core
10GE Optical Module	
SFPP-10GE-SR	SFP+ 10GE SR - Wavelength: 850nm / Distance: 300 m / Mode: Multi-mode - Connector: LC / Data rate: 10.3125 Gbit/s / Core type: Dual Core
SFPP-10GE-LR	SFP+ 10GE LR - Wavelength: 1310nm / Distance: 10 km / Mode: Single-mode - Connector: LC / Data rate: 10.3125 Gbit/s / Core type: Dual Core
SFPP-10GE-ER	SFP+ 10GE ER - Wavelength: 1550nm / Distance: 40 Km / Mode: Single-mode - Connector: LC / Data rate: 10.3125 Gbit/s / Core type: Dual Core
SFPP-10GE-ZR	SFP+ 10GE ZR - Wavelength: 1550nm / Distance: 80 km / Mode: Single-mode - Connector: LC / Data rate: 10.3125 Gbit/s / Core type: Dual Core
XGS-PON Optical Module	
SFPP-XGSPON (N2a)	SFP+ XGSPON ONU (N2a) - Wavelength: Tx-1270nm/Rx-1550nm - Distance: 20km / Mode: Single-mode / Connector: SC - Data rate: 10 Gbit/s(Up), 10 Gbit/s(Down) / Core type: Single-Core

