8 Port 10G XGSPON OLT
with 2x 100G QSFP28, 4x 10G/25 SFP28 and 1x 1G RJ45 Uplink ports

XGSPON OLT-8XGS

airlive®

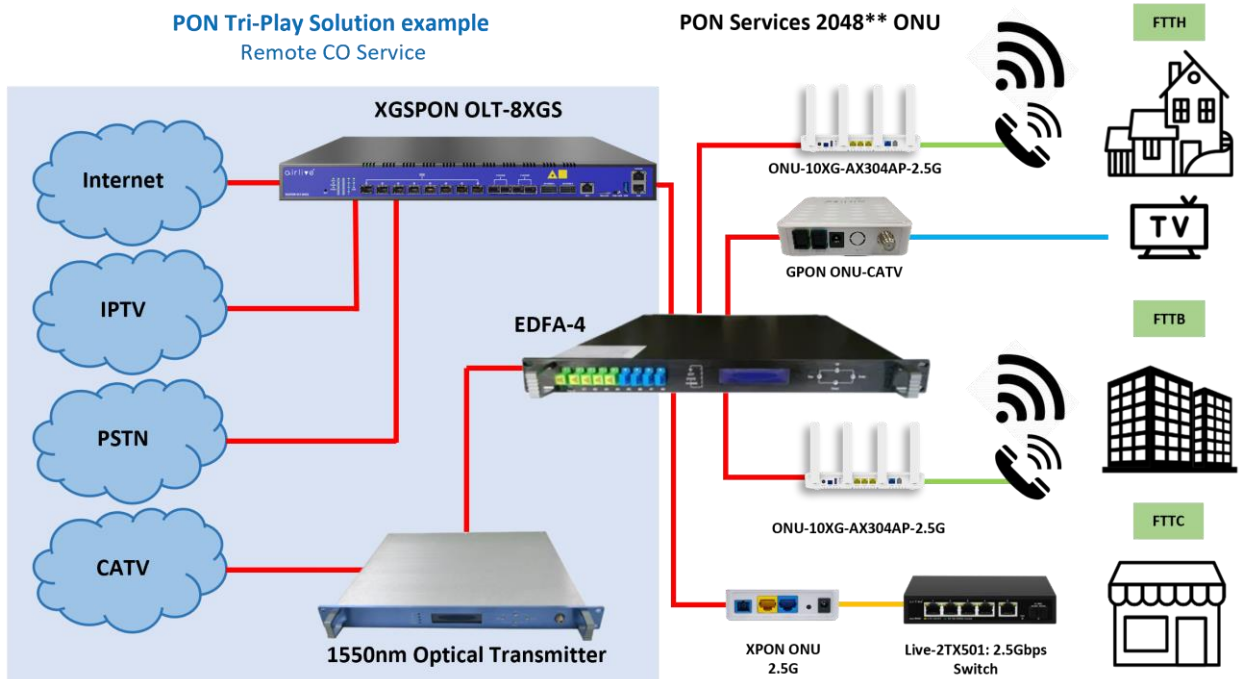|			
Support 2048 ONU**	8x PON Port	1x 1G RJ45 Gigabit Uplink	XG-PON XGS-PON ONU
2x 100G QSFP28 4x 10/25G SFP28 Uplink	Fiber Optical 20KM	Compliant ITU-T G.987/9807 standard	ONU auto discovery link

Overview

The XGSPON OLT-8XGS is a XG(S)-PON OLT that caters to new optical fiber communication networks. It conforms to international standards like ITU-T G.9807 (XGS-PON) and ITU-T G.987 (XG-PON) and supports two bandwidth access modes: 1. Asymmetric mode with 2.5Gbps upstream and 10Gbps downstream speed, and 2. Symmetrical mode with 10Gbps upstream and downstream speeds. It also support ITU-T G.984 (GPON) making triple mode possible. It is an ideal fit for high-bandwidth scenarios such as carrier networks, FTTx, and enterprise networks. The compact 1U chassis of the XGSPON OLT-8XGS makes it easy to deploy in tight spaces. Its Broadcom + NXP chipset solution ensures a robust performance.

The OLT-8XGS boasts many ports, providing 2x 100G QSFP28, 4x 10/25G SFP28 and 1x 1G RJ45 uplink ports for full line-speed data forwarding. It also offers 8 XG(S)-PON downlink interfaces with a splitting ratio of 1:256** to access the user's ONT. This device is designed for use with applications the require the new higher data transfer speeds. To use XG(S)/GPON The Airlive XGS-PON/GPON Combo N2/C+ SFP+ module is needed. When using this module, the autosensing function in the OLT will set the correct speed for the connected XG/XGS/GPON ONU. All can used at the same time on a single PON port.

Highlight Feature

- Supports XGS-PON/XG-PON/GPON triple mode.
- GPON ONU: Upstream 1.2Gbps, Downstream: 2.5Gbps
- XG-PON ONU: Upstream 2.5Gbps, Downstream: 10Gbps
- XGS-PON ONU: Upstream 10Gbps, Downstream: 10Gbps
- 8 SFP+ PON ports, 2x 100G QSFP28, 4x 10/25G SFP28, 1x 1G RJ45, 1U 19"
- each PON port supports up to 256 ONUs, total up to 2048 ONUs**

FTTX Application

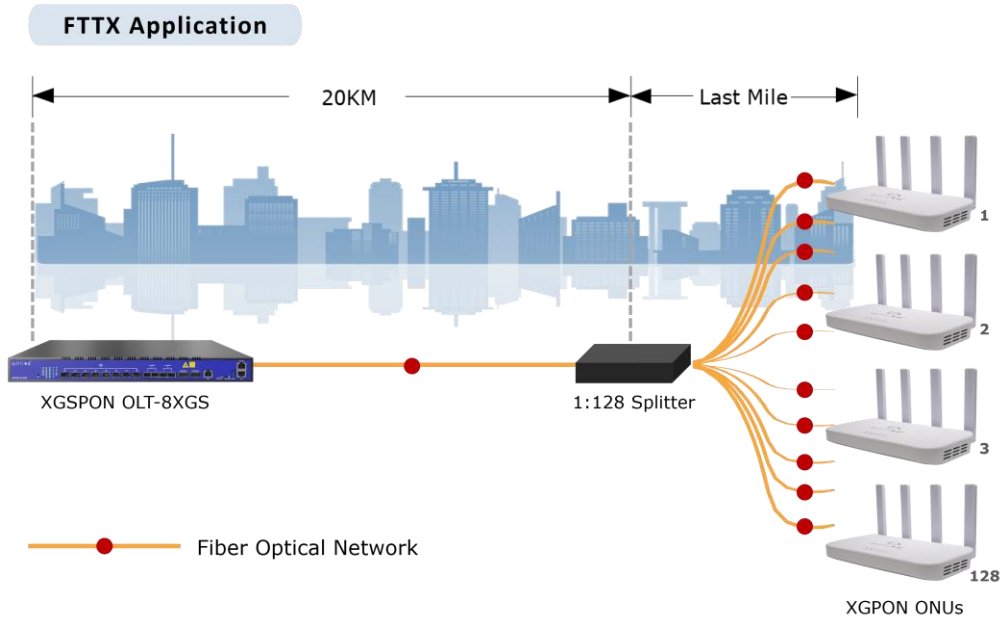XGSPON OLT-8XGS offers a complete, end-to-end network infrastructure application products for FTTX networks. From the CO to the customer premises, regional carriers, independent operators, municipalities, Multiple System Operators (MSOs), utilities, and developers worldwide have tapped the experience and innovation to build their FTTX networks.

High-speed and Long-distance Coverage for Triple Play Services

The XGSPON OLT-8XGS offers a robust solution for providing high-speed and long-distance coverage in triple play service applications such as HDTV, IPTV, voice-over-IP (VoIP), and multimedia. It supports downstream bandwidths of up to 10 Gbps and upstream bandwidths of 10 Gbps, enabling fast and reliable data transmission. With a coverage range of up to 20km between equipment nodes, the OLT-8XG is a cost-effective access technology that offers flexibility for network deployment. Its reliable and scalable network ensures a seamless and efficient experience for users. When using the Airlive XGSPON/GPON Combo N2/C+ SFP+ PON Module, XG/XGS and GPON onu's can all be connected to a single PON port allowing you more connection freedom.

Specification

Model	8 Port 10G XGSPON OLT with 2x 100G QSFP28

Device Interface

- **PON Port**: 8x XG(S)-PON (SFP+) N2/C+
- **Uplink**: 1x 1G RJ45
- **Uplink**: 4x 10/25G SFP28
- **Uplink**: 2x 100G QSFP28
- **Console**: 1x 10/100/1000BASE-T out-band port, 1x Console RJ45 port, 1x USB-COM Type C USB Console port, 1x USB3.0 Port, 1x MicroSD slot
- **Fiber Type**: 9/125µm SMF
- **Connector**: SC/UPC
- **PON Port TX Power:** GPON: +3dBm ~ +7dBm, XG(S)PON +4dBm ~ +7dBm
- **PON Port RX Sensitivity:** XGS-PON: -28dBm, XG-PON: -29.5dBm, GPON: -32dBm
- **PON Port Saturation Optical Power:** XGS-PON: -7dBm, XG-PON: -9dBm, GPON: -12dBm
- **Supported ONUs**: 2048**
- **PON port speed:**
  GPON ONU: Upstream 1.244Gbps, Downstream: 2.488Gbps
  XG-PON ONU: Upstream 2.488Gbps, Downstream: 9.953Gbps
  XGS-PON ONU: Upstream 9.953Gbps, Downstream: 9.953Gbps
- **Wavelength**: XG(S)-PON TX 1577nm, RX 1270nm GPON TX 1490nm, RX 1310nm
- **Max splitting ratio**: 1:128 (module based)**
- **Transmission Distance**: 20KM
- **Backplane Bandwidth**: 1960Gbps
- **Port Forwarding Rate**: 566.928Mpps
- **Management Mode**: CLI: (Console/Telnet/SSH), WEB
- **Lightning protection level**: Power supply 6KV/Device Interface 4KV

Firmware features

- **Management Function**:
  SNMP, Telnet, CLI, WEB, SSH v2
  Fan Group Control
  Port Status monitoring and configuration management
  Online ONU configuration and management
  User management
  Alarm management
- **Layer2 Switch**:
  32K Mac address
  Support 4096 VLANs
  Support port VLAN and protocol VLAN
  Support VLAN tag/Un-tag, VLAN transparent transmission
  Support VLAN translation and QinQ

Support storm control based on port
Support port isolation
Support port rate limitation
Support 802.1D and 802.1W
Support static LACP, Dynamic LACP
QoS based on port, VID, TOS and MAC address
Access control list
IEEE802.x flow control
Port stability statistic and monitoring

Multicast

IGMP Snooping
2048 IP Multicast Groups

DHCP

DHCP server, DHCP relay, DHCP snooping
DHCP option82

Layer 3 Route

ARP proxy
4096 hardware Host Routes, 512 hardware Subnet Routes
Support 802.1X, Radius, Tacacs+
Support IP source guard
Support static route, dynamic route RIP v1/v2, RIPng and OSPF v2/v3

IPv6

Support NDP;
Support IPv6 Ping, IPv6 Telnet, IPv6 routing;
Support ACL based on source IPv6 address, destination IPv6 address, L4 port, protocol type, etc;
Support MLD v1/v2 snooping(Multicast Listener Discovery snooping)

PON Function

T-CONT DBA
x-GEM traffic
In compliant with ITU-T G.9807 (XGS-PON), ITU-T G.987 (XG-PON) and with ITU-T G.984 (GPON).
Support Up to 20KM transmission distance
Support data encryption, multi-cast, port VLAN, separation, RSTP, etc.
Support ONU auto-discovery/link detection/remote upgrade of software.
Support VLAN division and user separation to avoid broadcast storm.
Support power-off alarm function, easy for link problem detection.
Support broadcasting storm resistance function.
Support port isolation between different ports.
Support ACL and SNMP to configure data packet filter flexibly.
Specialized design for system breakdown prevention to maintain stable system.
Support RSTP, IGMP Proxy.

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Specification

Model	8 Port 10G XGSPON OLT with 100G QSFP28

Power
- 1x AC 100~240V, 50/60Hz (Default)
- 2x AC 100~240V, 50/60Hz (Option)

Power Consumption
- **Power Usages Max**: 150W

Environment
- **Operating Temperature:** -20°C to +60°C
- **Storage Temperature:** -40°C to +70°C
- **Operating Humidity**: 5%~95%, non-condensing
- **Storage Humidity**: 5%~95%, non-condensing

Standard package of OLT
- **Product size:**
  44.2 x 33.0 x 4.36cm (L*W*H)
- **Package size:**
  cm (L*W*H)
- **Package Weight:**
  N.W: 4.8kg; G.W: kg (Single Power)
- **Package content**:
  1 x Device, 1 x Power cord, Installation Kits, 1 x QIG.

Standard carton package
- **Quantity:** pcs / 1 carton
- **Dimensions**
  cm (L*W*H)
- **Weight**
  kg (G.W)

Ordering Information
- **Model:**
  XGSPON OLT-8XGS
- **Name:**
  AirLive XGSPON OLT-8XGS 8 Port 10G XGSPON OLT with 2x 100G QSPF28, 4x 10/25G SFP28, 1x 1G RJ45

NOTE

The OLT-8XGS supports GPON, XG-PON and XGS-PON triple play. The AirLive XG(S)PON/GPON OLT SFP+ N2/C+ PON module is recommended to be used. All 3 modes can run at the same time.

The Max Splitting ratio is 1:256 for the OLT PON Port. But the XG/XGS/GPON Combo N2/C+ SFP+ PON module is currently limited to 1:128. This means only 128 XG/XGS ONU's can be connected per PON port.

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