1 PON Ports GPON OLT with 10G SFP+

GPON OLT-121

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Support 128 GPON ONU	GPON Module Built in	2x Gigabit WAN	1.25Gbps Uplink 2.5Gbps Downlink ONU auto discovery link
10GE(SFP+) Uplink	Fiber Optical 20KM	compliant ITU-T984.x standard	

Overview

Revolutionize Your Network with AirLive GPON OLT-121 Built-in GPON module for lightning-fast speeds, enhanced reliability, and streamlined network management. Benefits for Your Business Plug and play, Built-in GPON Transmitter. Ease of Installation, Designed with simplicity in mind, the GPON OLT-121 can be set up quickly, reducing downtime and operational costs. Interoperability: Complies with ITU-T G.984/G.988 standards, ensuring compatibility with other GPON-compliant equipment. Cost-Effective: A cost-efficient solution that offers flexibility for network deployment without compromising on quality or performance. The AirLive GPON OLT-121 is not just a product; it's a promise of reliability, efficiency, and high performance for your network. Embrace the future of connectivity and give your customers the experience they deserve. The GPON OLT-121 can manage up to 128 ONU devices in a fiber broadband network. Its ease of installation and maintenance make it an attractive option for small to medium-sized deployments.

The GPON OLT-121 is designed for use in FTTH (Fiber-to-the-Home) and small business applications with its single PON port with a splitting ratio of 1:128. It can transmit data up to a distance of 20KM and has high uplink and downlink bandwidth capabilities of 1.25Gbps/2.5Gbps. It also includes a 10G SFP+ Uplink port.

— Optical Line
— Telephone Line
— Coaxial Line
— RJ-45 Line

PON Tri-Play Solution example
Remote CO Service

GPON Services 128 ONU

GPON OLT-121

Internet

IPTV

PSTN

CATV

EDFA-4

1550nm Optical Transmitter

XGPON ONU-10XG-304P-2.5G

GPON ONU-CATV

XGSPON ONU-10XGS-304P-2.5G

XPON ONU 2.5G

Live-2TX501: 2.5Gbps Switch

FTTH

FTTB

FTTC
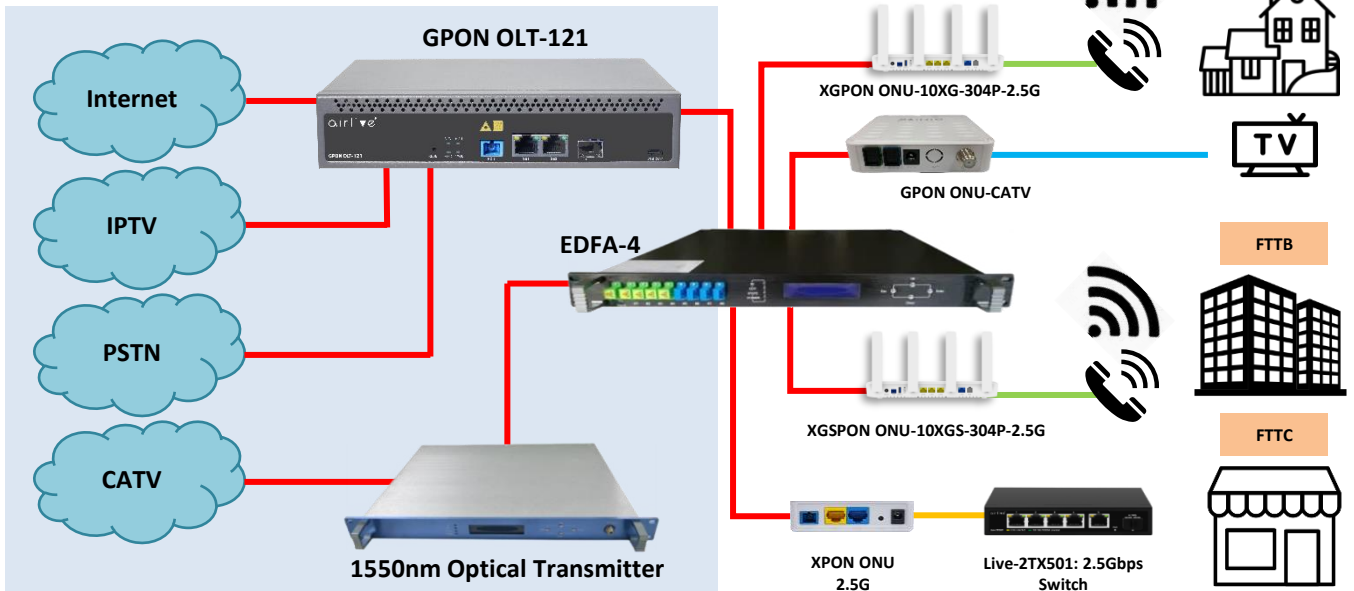
*For illustration only, not all ONU's work with the GPON OLT-121

Highlight Feature

- **Built-in PON optic module**
- **1 PON port, 1*SFP/SFP+ 10G, 2*RJ45 1G**
- **Upstream 1.244Gbps, Downstream 2.488Gbps**
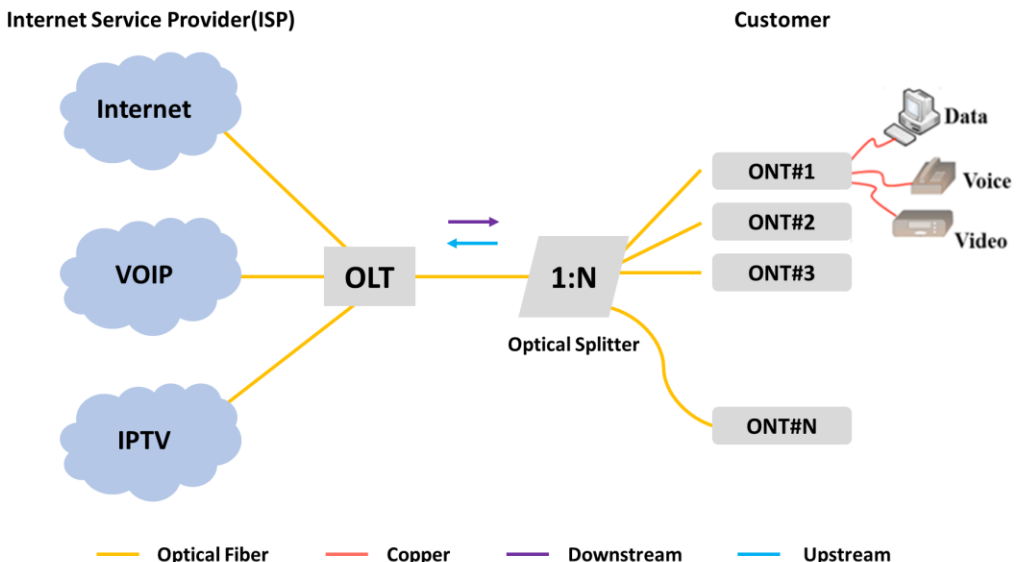- **Single PON port supports up to 128 ONUs, total up to 128 ONUs**

FTTX Application

GPON OLT-121 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.

FTTX Application

20KM — Last Mile

GPON OLT-121

1:128 Splitter

Fiber Optical Network

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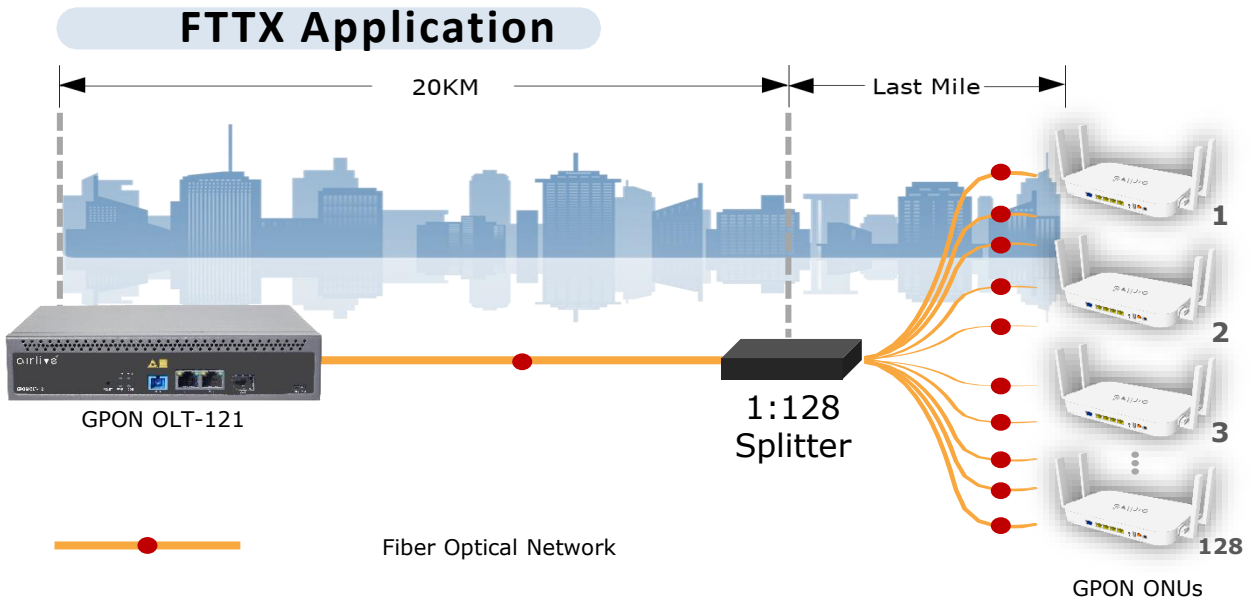
High-speed and Long-distance Coverage for Triple Play Services

The GPON OLT-121 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 2.5Gbps and upstream bandwidths of 1.25Gbps, enabling fast and reliable data transmission. Capable of transmitting data up to a distance of 20KM, it's perfect for expansive network deployments. Scalable Network Management: Manage up to 128 ONU devices with ease, making it an ideal solution for growing network infrastructures.

Its reliable and scalable network ensures a seamless and efficient experience for users. Future-Proof Technology: Equipped with a 10G SFP+ uplink, the device is ready to handle the increasing demands of next-generation network applications.

Internet Service Provider(ISP)

Customer

Internet — VOIP — IPTV — OLT — 1:N Optical Splitter — ONT#1, ONT#2, ONT#3, ONT#N — Data, Voice, Video

Optical Fiber — Copper — Downstream — Upstream

Specification

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Model	1 PON Ports GPON OLT with 10G SFP+

Device Interface

- **PON Port**: 1x 1.25Gbps/2.5Gbps
- **Uplink**: 2x 1G RJ45
- **Uplink**: 1x 10G SFP+
- **Console**: 1 x USB-COM Type C port
- **Fiber Type**: 9/125μm SM
- **Connector**: SC/UPC, Class C+++
  Class C+++ : TX>7.5dBm, Sen: -33dBm
- **Support ONUs**: 128
- **GPON port speed**: Upstream 1.244Gbps, Downstream 2.488Gbps
- **Wavelength**: TX 1490nm, RX 1310nm
- **Max splitting ratio**: 1:128
- **Transmission Distance**: 20KM
- **Backplane Bandwidth**: 16Gbps
- **Port Forwarding Rate(**: 23.808Mpps
- **Management Mode**: Console/WEB/Telnet/ CLI/SNMP
- **Lightning protection level**: Power supply 4KV/Device Interface 1KV

Firmware features

- **Management Function**:
  Telnet, CLI, WEB, SNMP
  Port Status monitoring and configuration management
  Online ONU configuration and management
  User management
  Alarm management
- **Layer2 Switch**:
  1K Mac address
  Support 4096 VLANs
  Support port VLAN
  Support VLAN tag/Un-tag, VLAN transparent transmission
  Support VLAN translation, QinQ and P2P
  Support storm control based on port
  Support port isolation
  Support port rate limitation
  Support 802.1D and 802.1W
  Access control list
  IEEE802.x flow control
  Port stability statistic and monitoring

Multicast

IGMP Snooping
256 IP Multicast Groups

DHCP

Support DHCP server, DHCP relay, DHCP snooping
Support DHCP option82
Support DHCPv6 server,DHCPv6 relay

Layer 3 Route

Support dynamic/static ARP
Support WAN (DHCP/PPPOE/Statics)
Support static routing, NAT, DMZ
Support QoS based on DSCP, MAC, IP, L4 port, protocol, etc.
Support ACL based on source MAC address, source IP address, source L4 port, destination IP address, destination L4 port, protocol type, etc.

IPv6

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

GPON Function

Tcont DBA
Gemport traffic
In compliant with ITU-T984.x standard
Up to 20KM transmission Distance
Support data encryption, multi-cast, port VLAN, separation, etc
Support ONT 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

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Specification

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Power

- DC 12V/2.5A (Optional)
- AC 100~240V, 50/60Hz (Default)

Environment

- **Working Temperature:** -20°C to +60°C
- **Storage Temperature:** -40°C to +70°C
- **Relative Humidity**: 5%~95%, non-condensing
- **Fan**: 1x Built-in FAN
- **MTBF**: 200000 hrs.

Standard package of OLT

- **Product size:**
  21.0 x 17.3 x 4.36 cm(L*W*H)
- **Package size:**
  35.0 x 26.0 x 7.0 cm(L*W*H)
- **Package Weight:**
  Product N.W: 1.282kg
  Product G.W: 1.667kg
- **Package content**:
  1 x GPON OLT121, 1x Power Cable

Ordering information

- **AirLive GPON OLT121**
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