GP1706-4G

xPON WiFi6 HGU(Home Gateway Unit)

Overview

Vivio GP1706-4G HGU is an intelligent home gateway terminal product launched by Vivio for multi-service converged networks, integrating wireless and voice functionalities. This product is compatible with EPON and GPON networks, complying with ITU-T G.984/988, IEEE802.3ah international standards, Communication industry standards of the People's Republic of China GB/T 33845-2017 and YD/T 1475-2006, as well as China Telecom's EPON/GPON equipment technical requirements (CTC). It possesses excellent interoperability and operability, allowing seamless interconnection with leading OLT devices from industry manufacturers.

Highlights

Superior Access Performance

GPON: Downlink transmission rate of 2.5Gbps and uplink transmission rate of 1.25Gbps, enabling a splitting ratio of up to 1:128 when combined with OLT devices. Network coverage radius reaches up to 20KM.
EPON: Downlink transmission rate of 1.25Gbps and uplink transmission rate of 1.25Gbps, enabling a splitting ratio of up to 1:64 when combined with OLT devices. Network coverage radius reaches up to 20KM.

Secure Business Carrying Capacity

With over 20 years of professional R&D expertise, Vivio has developed targeted technologies including VLAN, ACL, QoS, and security filtering, as well as remote management for WiFi/WAN/VoIP for Vivio OLT. These technologies have endowed the ONU product with secure business carrying capacity.

Precise Business Control Capability

Supports DBA and Rate-Limit functions, advanced dynamic bandwidth allocation mechanism, and precise bandwidth limitation functionality. Ensures optimal sharing of bandwidth resources (2.5Gbps for GPON network, 1.25Gbps for EPON network) among all users. Supports QoS functionality to ensure reliable service quality and prioritize different business needs in the network.

- GPON and EPON autoadaptive
- Efficient bandwidth usage and Ethernet services
- The Splitting ratio ups to 1:128

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Product Characteristics

Rich Control Functions

Supports standard OMCI defined by ITU-T, standard OAM and extended OAM defined by telecom CTC2.1/3.0, including configuration, alarms, performance monitoring, fault isolation, and security management. Also supports Vivio 's proprietary OMCI and OAM, enabling enhanced business control when used with Vivio OLT.

Advanced Green Energy-Saving Technology

Derived from Vivio advanced "GreenTouch" architecture and "Smart@CHIP" intelligent chip technology, it achieves deep energy-saving and low-carbon environmental protection, ensuring environmentally-friendly operations.

Seamless Interoperability

Complies with ITU-T G.984/988, IEEE802.3ah international standards, Communication industry standards of the People's Republic of China GB/T33845-2017, YD/T 1475-2006, and China Telecom's EPON/GPON equipment requirements (CTC). It offers excellent interoperability and operability, ensuring smooth interconnection with industry-leading vendor OLT devices. Supports hybrid networking, minimizing network construction costs. Automatic switching between EPON and GPON networks enables a seamless transition from EPON to GPON.

Model Lists

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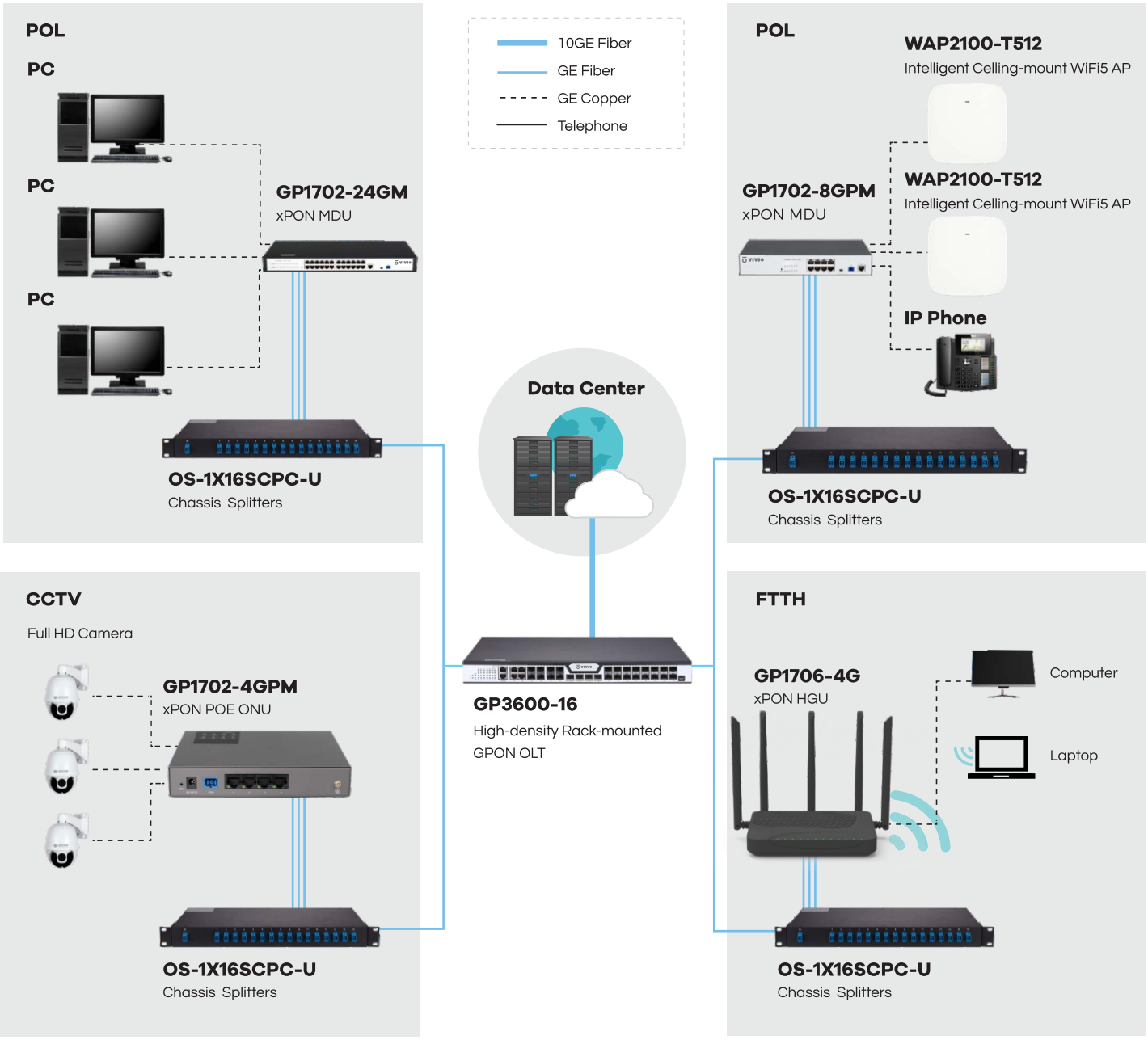
xPON WiFi6 HGU(Home Gateway Unit)

· 1-Port SC/UPC
· 4-Port Gigabit RJ45
· 1-Port USB2.0
· 3000Mbps wireless

Application Diagram



System Performance

Item		GP1706-4G
Service interface		
PON ports		1-Port GPON/EPON(SC/UPC)
UNI ports		4-Port Gigabit RJ45
WIFI		3000Mbps
USB2.0		1
Optical power	TX power	0.5~5dBm
	RX sensitive	<-28dBm
Power supply		
AC adaptor		Input: 100-240V AC Output: 12V/1.5A
Max. consumption (W)		18W
Appearance		
Chassis	Dimensions (WxDxH mm)	185 x 135 x 36
	Weight(Kg)(empty)	0.3
Environmental Specifications		
Operating	Temperature	-0℃ -45℃
	Humidity	10%~85% (non-condensing)
Storage	Temperature	-40℃ -85℃
	Humidity	5%-95% (non-condensing)
System capacity		
Accessories		Power adaptor

Technical Specifications

Standards

- ITU-T G.984/G.988
- IEEE802.3ah
- GBT33845-2017, YD/T 1475-2006
- IEEE 802.1Q, VLAN
- ITU-T Y.1291

VLAN

- 4K VLAN
- Port based VLAN
- IEEE 802.1Q VLAN
- Tag/Transparent/Aggregation /Trunk/Translation mode VLAN
- CTC2.0 defined VLAN

IP Service

- DHCP server/client
- Routing/Bridging/Hybrid mode
- DNS, DDNS
- PPPOE
- NAT/NAPT

xPON Service

- AES128 algorithm encryption
- MAC/Loid/Hybrid authentication

QoS

- Backpressure flow control (half-duplex)
- IEEE 802.3x flow control (full duplex)
- Against Head of Line mechanism
- IEEE 802.1p, CoS
- Four priority queues on each port
- WR, SP and FIFO queue schedule algorithms
- Port rate limit
- SLA and DBA

Reliability

- Management modes including CLI, HTTP, SNMP, TR069 and TELNET
- Software upgrade through TFTP and WEB, OMCI, etc.
- Local or server syslog

Network Security

- MAC address number limit
- MAC filter
- Port protect

Multicast

- IGMP-Snooping
- CTC defined dynamic multicast function
- MLD-Snooping
- Multicast group limitation
- Multicast fast-leave

Reliability

- Loop detection
- Dying-Gasp
- TX/RX optical power alarm

Wireless

- 802.11b/g/n/ac/ax
- 2x2 MIMO
- Multi SSID
- SSID encryption
- Wireless channel (configurable)

Ordering Information

Model	Description
GP1706-4G	xPON WiFi6 HGU, 1-Port GPON/EPON(SC/UPC), 4-Port Gigabit RJ45, 1-Port USB2.0, dual band 3000M WiFi6, 5 external antennas, plastic casing, DC12/1.5A power adapter.