



GP1704 Series

XPON CATV Home Gateway Unit(HGU)



Overview

Vivio GP1704 Series is a smart HGU with integrated wireless, VoIP and CATV function.

Vivio GP1704 Series is oriented for the integrated multi-service network in telecom operator network.

Vivio GP1704 series is compatible with EPON and GPON networks: complied with the international standard ITU-T G.984/988 and IEEE802.3ah, PRC Communication Industry Standard GB/T33845-2017 and YD/T 1475-2006, and China Telecom EPON/GPON Technical Requirement CTC.

GP1704 CATV Series includes 3 models:
GP1704-2FC-S, GP1704-4GC-22A
GP1704-4GVC-22A

Highlights

Excellent Access Capacity

GPON: supports the PON transmission rate of downlink 2.5Gbps/ uplink 1.25Gbps. Connected with OLTs, it can realize 1:128 splitting ratio. The covering radius of the network can reach to 20km.

EPON: supports the PON transmission rate of downlink 1.25Gbps/ uplink 1.25Gbps. Connected with OLTs, it can realize 1:64 splitting ratio. The covering radius of the network can reach to 20km.

Secure Service Carrying Ability

For ensuring the secure service carrying ability of ONU, Vivio has developed techniques including VLAN, STP, port isolation, ACL, QoS and Broadcast Storm Control.

Advanced Energy-saving Technique

Vivio GP1704 series supports the industry-leading "GreenTouch" architecture and "Smart@CHIP" technology to ensure energy saving and environmental protection.



GPON and EPON auto-adaptive



Efficient bandwidth usage and Ethernet services



The Splitting ratio ups to 1:128

VIVIO GP1704 Series

High Service Control Capability

Vivio GP1704 series supports DBA and Rate-Limit. Vivio GP1704 series also supports advanced dynamic bandwidth distribution and accurate bandwidth limit, which enables users to share 2.5Gbps (GPON) and 1.25Gbps (EPON) bandwidth resource appropriately. Vivio GP1704 series supports DBA and Rate-Limit. Vivio GP1704 series also supports advanced dynamic bandwidth distribution and accurate bandwidth limit, which enables users to share 2.5Gbps (GPON) and 1.25Gbps (EPON) bandwidth resource appropriately.

Rich OMCI Function

Vivio GP1704 series supports the standard OMCI defined by ITU-T, standard OAM and extended OAM defined by telecom CTC2.1/3.0, including configuration, alarm, performance monitoring, fault isolation and security management, and it also supports private OMCI and OAM defined by Vivio.

Complete Interaction Capacity

Vivio GP1704 series is complied with the international standard ITU-T G.984/988 and IEEE802.3ah, PRC Communication Industry Standard GB/T33845-2017 and YD/T 1475-2006, and China Telecom EPON/GPON Technical Requirement CTC. With great interoperability and operability,

Vivio GP1704 series can interconnect well with OLT devices of mainstream manufacturers in the industry to minimize network construction costs. Automatic network switching enables smooth transition from EPON to GPON network.

Model Lists

GP1704-2FC-S

xPON HGU



- 1-Port SC/APC
- 1-Port Gigabit RJ45
- 1-Port 100M RJ45
- 1-Port RF(British system)
- 300Mbps wireless

GP1704-4GC-22A

xPON HGU



- 1-Port SC/APC
- 4-Port Gigabit RJ45
- 1-Port USB2.0
- 1-Port RF(British system)
- 1200Mbps wireless

GP1704-4GVC-22A

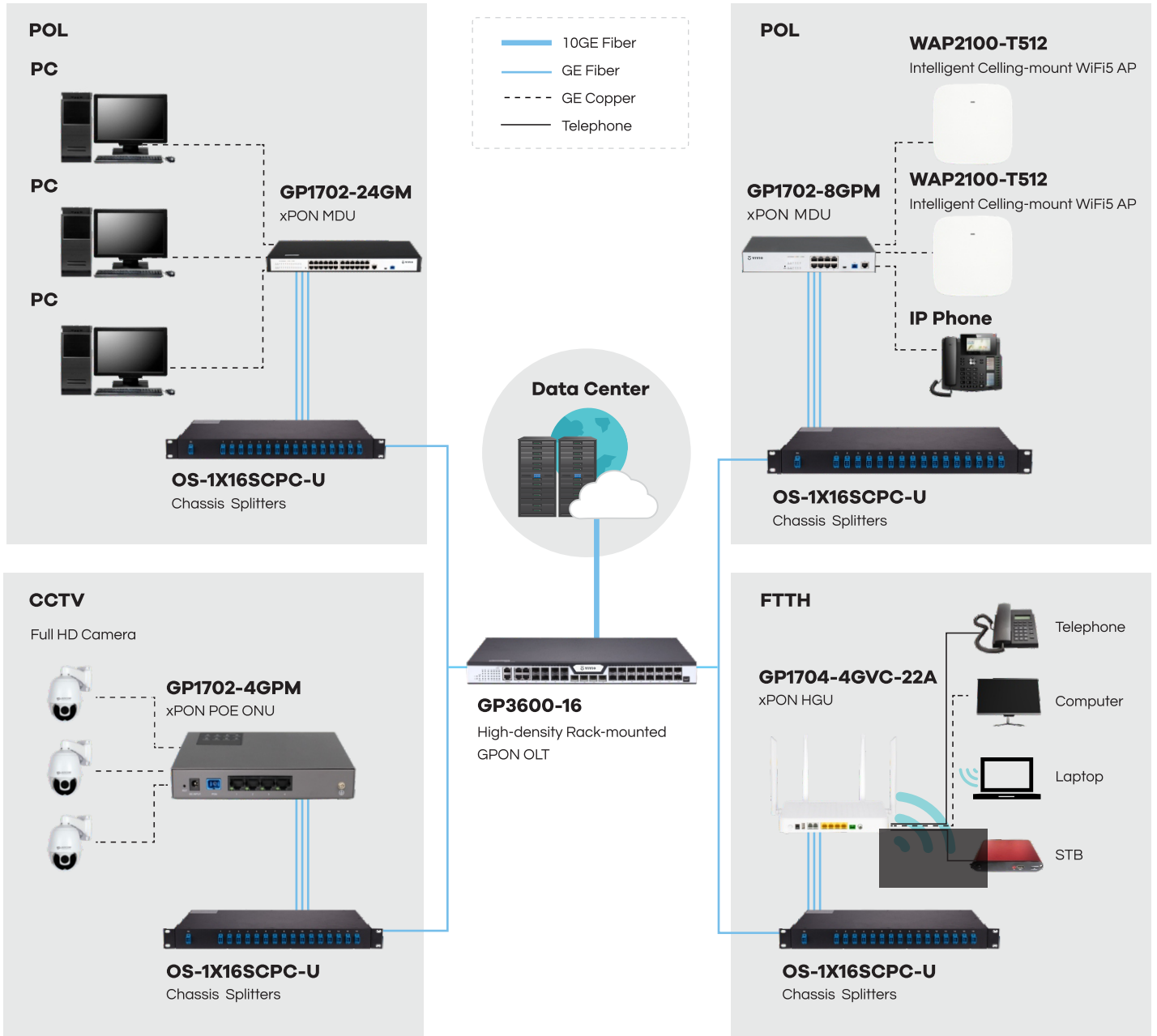
xPON HGU



- 1-Port SC/APC
- 4-Port Gigabit RJ45
- 2-Port POTS
- 1-Port USB2.0
- 1-Port RF(British system)
- 1200Mbps wireless

VIVIO GP1704 Series

Application Diagram



System Performance

Item	GP1704-2FC-S	GP1704-4GC-22A	GP1704-4GVC-22A
Service interface			
PON ports	1 SC/APC	1-Port SC/APC	1-Port SC/APC
UNI ports	1-Port Gigabit RJ45 1-Port 100M RJ45 1-Port RF(British system)	4-Port Gigabit RJ45 1-Port RF(British system)	4-Port Gigabit RJ45 1-Port RF(British system)
WIFI	300Mbps	1200Mbps	1200Mbps
Voice	/	/	2
USB	/	1	1
Optical power	TX power	0.5~5dBm	0.5~5dBm
	RX sensitive	<-28dBm	<-28dBm
CATV	TX level	≥70dbuv	≥70dbuv
	Receiver AGC Range	-15~-5dbm	-15~-5dbm
Power supply			
AC adaptor	Input: 100-240V AC Output: 12V/1A	Input: 100-240V AC Output: 12V/1.5A	Input: 100-240V AC Output: 12V/1.5A
Max. consumption (W)	10	15	15
Appearance			
Chassis	Dimensions (WxDxH mm)	140 x 105 x 30	230 x 140 x 34.9
	Weight(Kg)(empty)	0.2	0.4
Package	Dimensions (WxDxH mm)	277 x 176 x 38	325 x 255 x 48
	Weight (Kg)	0.3	0.7
Environmental Specifications			
Operating	Temperature Humidity	-0 C -45 C 10%~85% (non-condensing)	
Storage	Temperature Humidity	-40 C -85 C 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
- CTC2.0 defined VLAN

IP Service

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

GPON 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

GPON Service

- AES128 algorithm encryption
- MAC/Loid/Hybrid authentication

Voice Service

- SIP, T.38 FAX
- Three-way calling
- Call waiting
- Hot-line calling

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

- 802.11 b/g/n
- 802.11 ac(-22A models)
- 2x2 MIMO
- Multi SSID
- SSID encryption
- Wireless channel (configurable)

Ordering Information

Model	Description
GP1704-2FC-S	xPON CATV WiFi ONU, 1-Port GPON/EPON (SC/APC), 1-Port Gigabit RJ45 + 1-Port 100M RJ45 + 1-Port RF, single band 300M WiFi, plastic casing, DC12V/1A power adaptor
GP1704-4GC-22A	xPON CATV WiFi ONU, 1-Port GPON/EPON (SC/APC), 4-Port Gigabit RJ45 + 1-Port RF, dual band 1200M WiFi, 4 external antennas, plastic casing, DC12V/1.5A power adaptor
GP1704-4GVC-22A	xPON Triple-play WiFi ONU, 1-Port GPON/EPON (SC/APC), 4-Port Gigabit RJ45 + 2-Port RJ11(POTS) + 1-Port RF, dual band 1200M WiFi, 4 external antennas, plastic casing, DC12V/1.5A power adaptor