

# GP1704 Series

XPON CATV Home Gateway Unit(HGU)



## Overview

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

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

BDCOM 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, BDCOM has developed techniques including VLAN, STP, port isolation, ACL, QoS and Broadcast Storm Control.

### Advanced Energy-saving Technique

BDCOM 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

## High Service Control Capability

BDCOM GP1704 series supports DBA and Rate-Limit. BDCOM 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. BDCOM GP1704 series supports DBA and Rate-Limit. BDCOM 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

BDCOM 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 BDCOM.

## Complete Interaction Capacity

BDCOM 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,

BDCOM 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

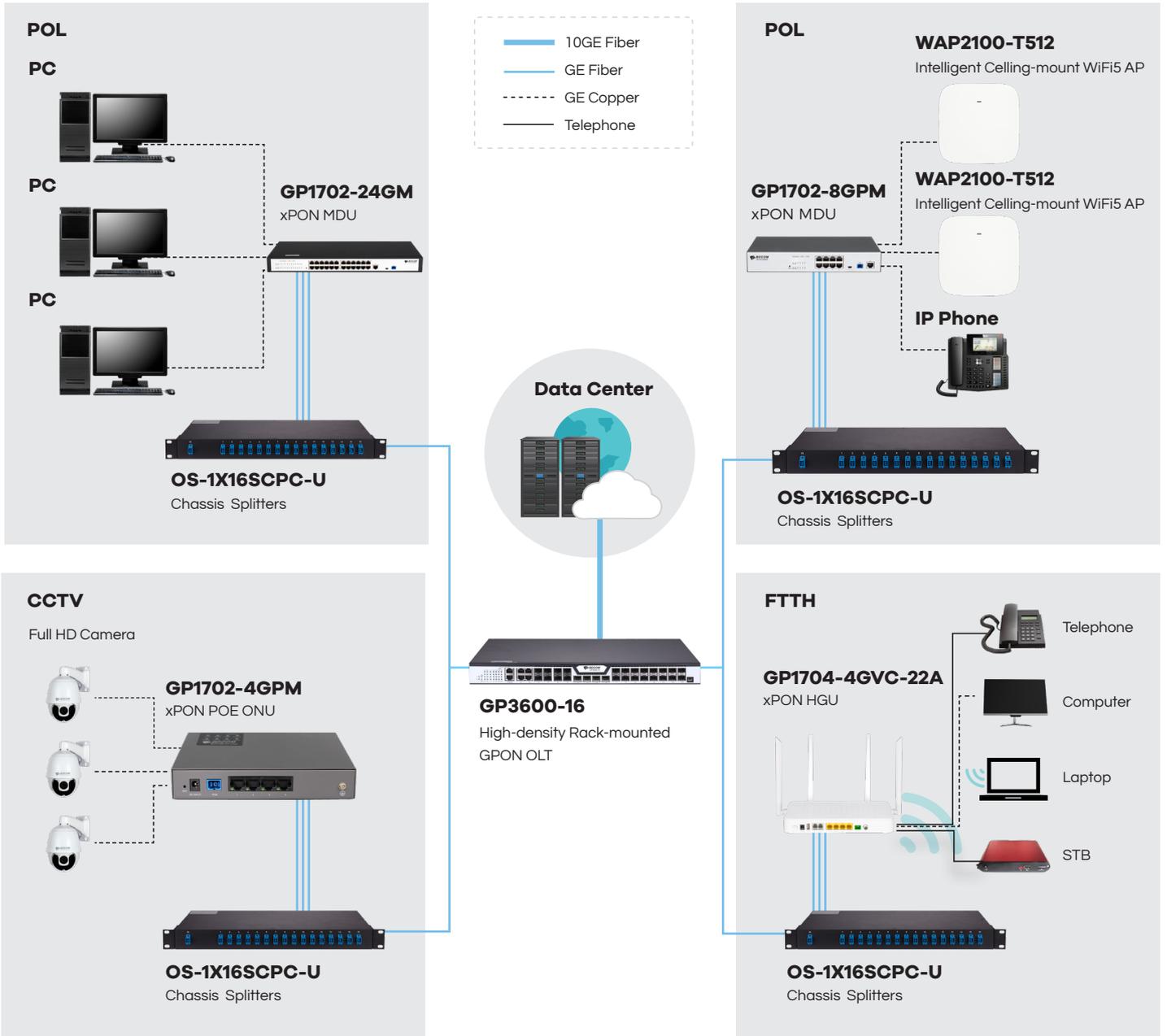
### GP1704-4GVC-22A

xPON HGU



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

# Application Diagram



## System Performance

Item		GP1704-2FC-S	GP1704-4GC-22A	GP1704-4GVC-22A
<b>Service interface</b>				
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	0.5~5dBm
	RX sensitive	<-28dBm	<-28dBm	<-28dBm
CATV	TX level	≥70dbuv	≥70dbuv	≥70dbuv
	Receiver AGC Range	-15~-5dbm	-15~-5dbm	-15~-5dbm
<b>Power supply</b>				
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
<b>Appearance</b>				
Chassis	Dimensions (WxDxH mm)	140 x 105 x 30	230 x 140 x 34.9	230 x 140 x 34.9
	Weight(Kg)(empty)	0.2	0.4	0.5
Package	Dimensions (WxDxH mm)	277 x 176 x 38	325 x 255 x 48	325 x 255 x 48
	Weight (Kg)	0.3	0.7	0.7
<b>Environmental Specifications</b>				
Operating	Temperature Humidity		-0℃ -45℃ 10%~85% (non-condensing)	
Storage	Temperature Humidity		-40℃ -85℃ 5%~95% (non-condensing)	
<b>System capacity</b>				
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

## Management

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

## 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

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