

GP1704 Series

GPON Multi-service
Broadband Access Home
Gateway Unit(HGU)

Product 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 complied with the international standard ITU-T G.984/988 and PRC Communication Industry Standard GPON ONU in Access Technology Requirements and China Telecom GPON Technical Requirement CTC2.0.

GP1704 Series includes 10 models:

GP1704-1G,
GP1704-2FC-S,
GP1704-2F-E,
GP1704-2FV,
GP1704-2G-22A,
GP1704-2GV-22A,
GP1704-4F-E,
GP1704-4GV,
GP1704-4GV-22A,
GP1704-4GVC-S.



Product Characteristics

Excellent Access Capacity

GP1704 Series supports the PON transmission rate of downlink 2.5Gbp/ uplink 1.25Gbps. Connected with BDCOM OLTs, it can realize 1:128 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.

High Service Control Capability

GP1704 Series supports DBA and Rate-Limit. It supports advanced dynamic bandwidth distribution and accurate bandwidth limit, which enables users to share 2.5Gbps bandwidth resource appropriately. It also supports QOS function, which guarantees a reliable service quality and service priority.

Rich OMCI Function

GP1704 Series supports the standard OMCI defined by ITU-T, including configuration, alarm, performance monitoring, fault isolation and security management, and it also supports private OMCI defined by BDCOM.

Complete Interaction Capacity
GP1704 Series is complied with ITU-T G.984/988 and relevant requirements for PRC Community Industry Standard GPON ONU in Access Technology Requirements and China Telecom GPON Technical Requirement CTC2.0.

Advanced Energy-saving Technique

GP1704 Series supports the "GreenTouch" architecture and "Smart@CHIP".



Support 1.25Gbps
uplink and 2.5Gbps
downlink bandwidth



Efficient bandwidth
usage and Ethernet
services



The Splitting ratio
ups to 1:128

Model Lists

GP1704-1G

xPON HGU



- 1 SC/UPC
- 1 GE TX
- 300Mbps Wireless

GP1704-2FC-S

xPON HGU



- 1 SC/APC
- 1 GE + 1 FE TX
- 1 RF port
- 300Mbps wireless

GP1704-2F-E

xPON HGU



- 1 SC/UPC
- 1 GE + 1 FE TX
- 1 USB port
- 300Mbps wireless

GP1704-2FV

xPON HGU



- 1 SC/UPC
- 1 GE + 1 FE TX
- 1 USB port
- 1 POTS
- 300Mbps wireless

GP1704-2G-22A

xPON HGU



- 1 SC/UPC
- 2 GE TX
- 1 USB port
- 1200Mbps wireless

GP1704-2GV-22A

xPON HGU



- 1 SC/UPC
- 2 GE TX
- 1 USB port
- 1 POTS
- 1200Mbps wireless

GP1704-4F-E

xPON HGU



- 1 SC/UPC
- 1 GE + 3 FE TX
- 300Mbps Wireless

GP1704-4GV

xPON HGU



- 1 SC/UPC
- 4 GE TX
- 1 USB port
- 2 POTS
- 300Mbps wireless

GP1704-4GVC-S

xPON HGU



- 1 SC/APC
- 4 GE TX
- 1 USB port
- 1 RF port
- 2 POTS
- 300Mbps wireless

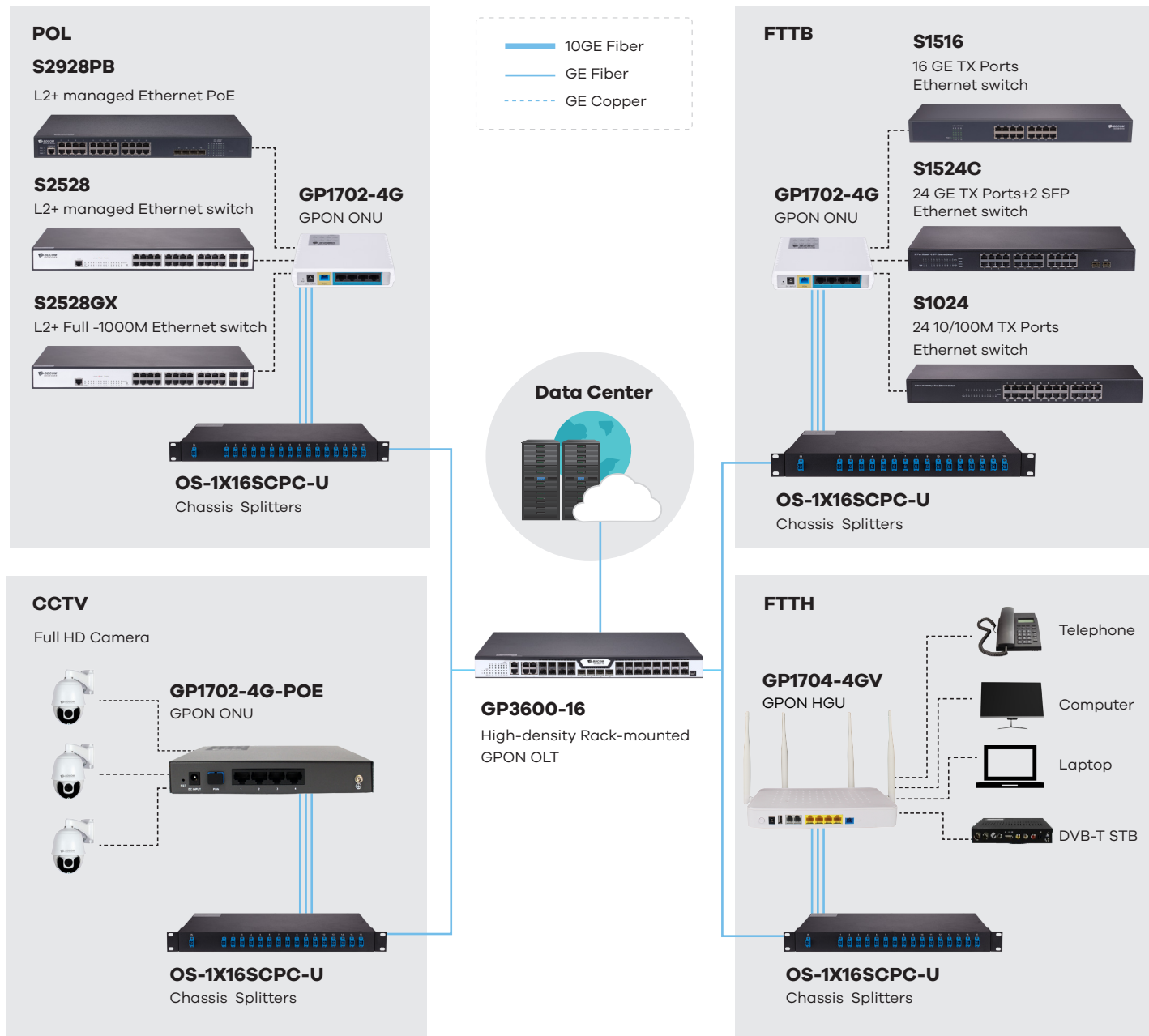
GP1704-4GV-22A

xPON HGU



- 1 SC/UPC
- 4 GE TX
- 1 USB port
- 2 POTS
- 1200Mbps wireless

Application Diagram



System Performance

Item		GP1704-1G	GP1704-2FC-S	GP1704-4F-E
Service interface				
PON ports		1 SC/UPC	1 SC/APC	1 SC/UPC
UNI ports		1 GE TX	1 GE + 1 FE TX + 1 RF	1 GE +3 FE TX
WIFI		300Mbps	300Mbps	300Mbps
Optical power	TX power	0.5~5dBm	0.5~5dBm	0.5~5dBm
	RX sensitive	<-28dBm	<-28dBm	<-28dBm
Power supply				
AC adaptor		Input: 100-240V AC Output: 12V/0.5A	Input: 100-240V AC Output: 12V/1A	Input: 100-240V AC Output: 12V/1A
Max. consumption (W)		5	10	8
Appearance				
Chassis	Dimensions(WxDxH mm)	117 x 87 x 29	140 x 105 x 30	140 x 105 x 30
	Weight(Kg)(empty)	0.1	0.2	0.2
	Dimensions	218 x 142 x 46	277 x 176 x 38	277 x 176 x 38
Package	Weight(Kg)(empty)	0.3	0.3	0.4
Environmental Specifications				
Operating Temperature /Humidity			0℃ - 45℃ /10%~85%(non-condensing)	
Storage Temperature /Humidity			-40℃ - 85℃ /5%-95% (non-condensing)	
System capacity				
Accessories			Power adaptor	

Item		GP1704-2F-E	GP1704-2FV	GP1704-2G-22A	GP1704-2GV-22A
Service interface					
PON ports		1 SC/UPC	1 SC/UPC	1 SC/UPC	1 SC/UPC
UNI ports		1 GE + 1 FE TX	1 GE + 1 FE TX	2GE TX	2GE TX
WIFI		300Mbps	300Mbps	1200Mbps	1200Mbps
Voice		/	1	/	1
USB		1	1	1	1
Optical power	TX power	0.5~5dBm	0.5~5dBm	0.5~5dBm	0.5~5dBm
	RX sensitive	<-28dBm	<-28dBm	<-28dBm	<-28dBm
Power supply					
AC adaptor		Input: 100-240V AC Output: 12V/1A	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	10	15	15
Appearance					
Chassis	Dimensions(WxDxH mm)	140 x 105 x 30			
	Weight(Kg)(empty)	0.2			
Package	Dimensions(WxDxH mm)	277 x 176 x 38			
	Weight(Kg)(empty)	0.3			
Environmental Specifications					
Operating	Temperature /Humidity	0 - 45℃ /10%~85%(non-condensing)			
Storage	Temperature /Humidity	-40℃ - 85℃/5%-95% (non-condensing)			
System capacity					
Accessories		Power adaptor			

System Performance

Item		GP1704-4GV	GP1704-4GV-22A	GP1704-4GVC-S
Service interface				
PON ports		1 SC/UPC	1 SC/UPC	1 SC/APC
UNI ports		4 GE TX	4 GE TX	4 GE TX + 1 RF
WIFI		300Mbps	1200Mbps	300Mbps
Voice		2	2	2
USB		1	1	1
Optical power	TX power	0.5~5dBm	0.5~5dBm	0.5~5dBm
	RX sensitive	<-28dBm	<-28dBm	<-28dBm
Power supply				
AC adaptor		Input: 100-240V AC Output: 12V/1.5A	Input: 100-240V AC Output: 12V/1.5A	Input: 100-240V AC Output: 12V/1.5A
Max. consumption (W)		15	15	15
Appearance				
Chassis	Dimensions(WxDxH mm)	230 x 140 x 34.9	230 x 140 x 34.9	230 x 140 x 34.9
	Weight(Kg)(empty)	0.4	0.5	0.5
Package	Dimensions(WxDxH mm)	325 x 255 x 48	325 x 255 x 48	325 x 255 x 48
	Weight (Kg)	0.6	0.7	0.7
Environmental Specifications				
Operating	Temperature /Humidity	0℃ - 45℃ /10%~85%(non-condensing)		
Storage	Temperature /Humidity	-40℃ - 85℃/5%-95% (non-condensing)		
System capacity				
Accessories			Power adaptor	

Technical Specifications

Standards

- ITU-T G.984/G.988
- PRC Community Industry Standard GPON ONU in Access Technology Requirements
- IEEE 802.1D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- 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

Voice Service

- SIP, H.248, 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	
GP1704-1G	FTTH/O ONU, 1 GPON port (SC/UPC), 1 GE TX port, internal dual antenna(300M WiFi), plastic hull, DC12V/0.5A, external adaptor
GP1704-2FC-S	FTTH/O ONU, 1 GPON port (SC/APC), 1 GE + 1 FE TX ports, 1 RF(British system), external dual antenna(300M WiFi), plastic hull, DC12V/1A, external adaptor
GP1704-2F-E	FTTH/O ONU, 1 GPON port (SC/UPC), 1 GE + 1 FE TX ports, 1 USB port, external dual antenna(300M WiFi), plastic hull, DC12V/1A, external adaptor
GP1704-2FV	FTTH/O ONU, 1 GPON port (SC/UPC), 1 GE + 1 FE TX ports, 1 POTS, 1 USB port, external dual antenna(300M WiFi), plastic hull, DC12V/1A, external adaptor
GP1704-2G-22A	FTTH/O ONU, 1 GPON port (SC/UPC), 2 GE TX ports, 1 USB port, external dual antenna(1200M WiFi), plastic hull, DC12V/1.5A, external adaptor
GP1704-2GV-22A	FTTH/O ONU, 1 GPON port (SC/UPC), 2 GE TX ports, 1 POTS, 1 USB port, external dual antenna(1200M WiFi), plastic hull, DC12V/1.5A, external adaptor
GP1704-4F-E	FTTH/O ONU, 1 GPON port (SC/UPC), 1 GE + 3 FE TX ports, external dual antenna(300M WiFi), plastic hull, DC12V/1A, external adaptor
GP1704-4GV	FTTH/O ONU, 1 GPON port (SC/UPC), 4 GE TX ports, 2 POTS, 1 USB, external dual antenna(300M WiFi), plastic hull, DC12V/1.5A, external adaptor
GP1704-4GV-22A	FTTH/O ONU, 1 GPON port (SC/UPC), 4 GE TX ports, 2 POTS, 1 USB, external quadruple antenna(1200M WiFi), plastic hull, DC12V/1.5A, external adaptor
GP1704-4GVC-S	FTTH/O ONU, 1 GPON port (SC/APC), 4 GE TX ports, 2 POTS, 1 USB, 1 RF(British system), external dual antenna(300M WiFi), plastic hull, DC12V/1.5A, external adaptor