

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 4 models: 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

GP1704-4F-E

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



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

GP1704-4GV

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



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

GP1704-4GV-22A

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



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

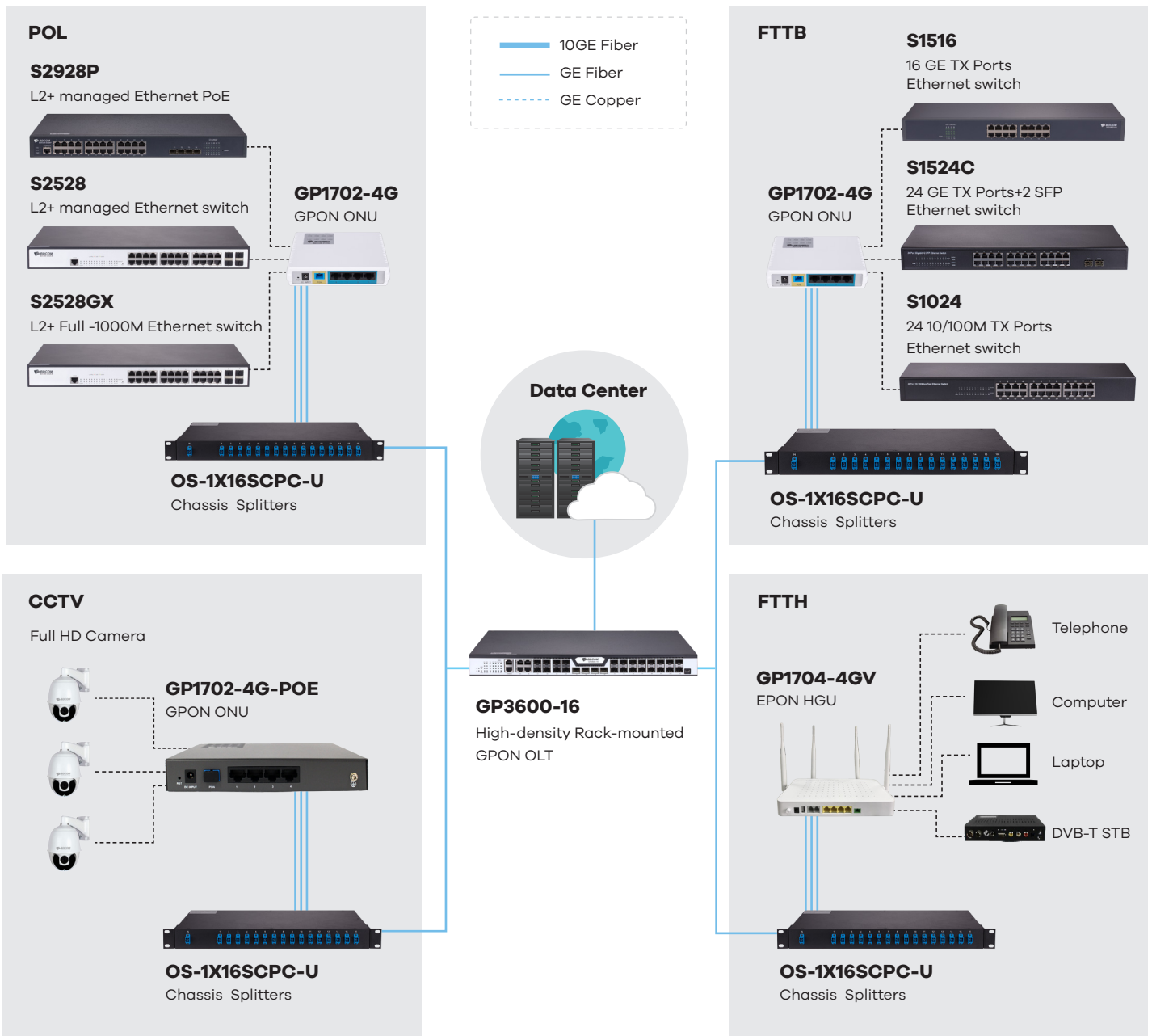
GP1704-4GVC-S

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



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

Application Diagram



System Performance

Item	GP1704-4F-E	GP1704-4GV	GP1704-4GV-22A	GP1704-4GVC-S
Service interface				
PON ports	1 SC/UPC	1 SC/UPC	1 SC/UPC	1 SC/APC
UNI ports	1 GE + 3 FE TX	4 GE TX	4 GE TX	4 GE TX + 1 RF
WIFI	300Mbps	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
System capacity				
DRAM (MB)	128	128	128	128
Flash (MB)	128	128	128	128
MAC table	2K	2K	2K	2K
VLAN ID	4K	4K	4K	4K
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	Input: 100-240V AC Output: 12V/1.5A
Max. consumption (W)	8	15	15	15
Appearance				
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	0.4
Package	Dimensions (WxDxH mm)	277 x 176 x 38	325 x 255 x 48	325 x 255 x 48
	Weight (Kg)	0.4	0.6	0.7
Environmental Specifications				
Operating	Temperature	-0℃ -45℃	-0℃ -45℃	-0℃ -45℃
	Humidity	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)
Storage	Temperature	-40℃ -85℃	-40℃ -85℃	-40℃ -85℃
	Humidity	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)
System capacity				
Accessories	Power adaptor			

Ordering Information

Model	Description
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, 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, 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 RF(British system), external dual antenna(300M WiFi), plastic hull, DC12V/1.5A, external 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
- 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

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, 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

- 802.11b/g/n
- 802.11 ac(GP1704-4GV-22A)
- 2x2 MIMO
- Multi SSID
- SSID encryption
- Wireless channel (configurable)