GPON Multi-service Broadband Access ONT

GP1702 Series

Product Overview

BDCOM GP1702 Series is a new generation smart ONT for integrated multi-service broadband access networks.
GP1702 Series, involving multiple models, supports common enterprise broadband access service, POE service and outdoor wide-temperature.

GP1702 Series is complied with the international standard ITU-T G.984/988 and PRC Communication Industry Standard GPON ONT in Access Technology Requirements and China Telecom GPON Technical Requirement CTC2.0.
GP1702 Series has 5 models: GP1702-4F, GP1702-4FC-S, GP1702-4G, GP1702-4G-POE and GP1702-4G-IE.

Product Characteristics

Excellent Access Capacity
GP1702 Series supports the PON transmission rate of downlink 2.5Gbp/ uplink 1.25Gbps. Connected with BDCOM OLT, 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 ONT, BDCOM has developed techniques including VLAN, STP, port isolation, ACL, QoS and Broadcast Storm Control.

High Service Control Capability
GP1702 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
GP1702 Series supports the standard OMCI defined by ITU-T, including configuration, alarm, performance monitoring, fault isolation and security management, and it also supports private OMIC defined by BDCOM.

Complete Interaction Capacity
GP1702 Series is complied with ITU-T G.984/988 and relevant requirements for PRC Community Industry Standard GPON ONT in Access Technology Requirements and China Telecom GPON Technical Requirement CTC2.0.

Advanced Energy-saving Technique
GP1702 Series supports the "GreenTouch" architecture and "Smart@CHIP".

Varied Application Scenarios
POE model GP1702-4G-POE can support 802.af/at, working temperature of GP1702-4G-IE can reach up to 70℃

Support 1.25Gbps uplink and 2.5Gbps downlink bandwidth

Efficient bandwidth usage and Ethernet services

The Splitting ratio ups to 1:128
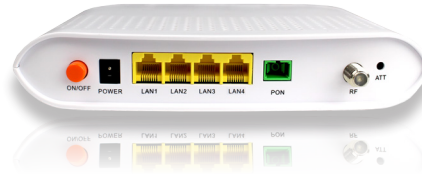
Model Lists

GP1702-4F

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 1 GE + 3 FE TX

GP1702-4FC-S

GPON Multi-service Broadband Access ONT

- 1 SC/APC
- 1 GE + 3 FE TX
- 1 RF port

GP1702-4G

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE TX

GP1702-4G-POE

GPON Multi-service Broadband Access ONT
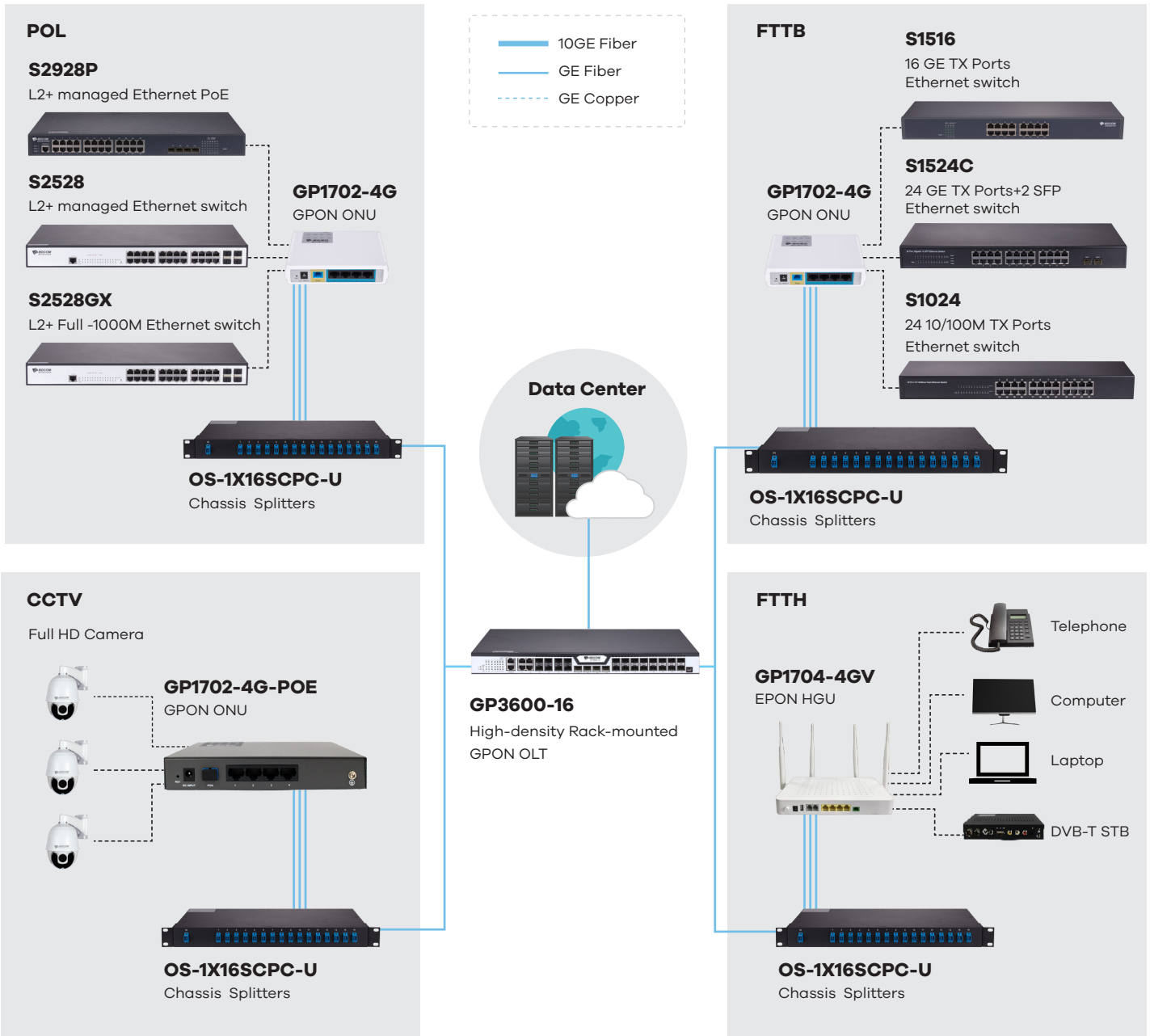

- 1 SC/UPC
- 4 GE POE

GP1702-4G-IE

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE TX

Application Diagram

POL

S2928P
L2+ managed Ethernet PoE

S2528
L2+ managed Ethernet switch

S2528GX
L2+ Full -1000M Ethernet switch

GP1702-4G
GPON ONU

OS-1X16SCPC-U
Chassis Splitters

CCTV

Full HD Camera

GP1702-4G-POE
GPON ONU

OS-1X16SCPC-U
Chassis Splitters

— 10GE Fiber
— GE Fiber
---- GE Copper

Data Center

GP3600-16
High-density Rack-mounted
GPON OLT

FTTB

S1516
16 GE TX Ports
Ethernet switch

S1524C
24 GE TX Ports+2 SFP
Ethernet switch

S1024
24 10/100M TX Ports
Ethernet switch

GP1702-4G
GPON ONU

OS-1X16SCPC-U
Chassis Splitters

FTTH

GP1704-4GV
EPON HGU

Telephone

Computer

Laptop

DVB-T STB

OS-1X16SCPC-U
Chassis Splitters

System Performance

Item		GP1702-4F	GP1702-4FC-S	GP1702-4G	GP1702-4G-POE	GP1702-4G-IE
Service interface						
PON ports		1 SC/UPC	1 SC/APC	1 SC/UPC	1 SC/UPC	1 SC/UPC
Ethernet ports		1 GE + 3 FE TX	1 GE + 3 FE TX 1 RF port	4 GE TX	4 GE POE	4 GE TX
Optical power	TX power	0~4dBm	0~4dBm	0~4dBm	0~4dBm	0.5~5dBm
	RX sensitive	<-27dBm	<-27dBm	<-27dBm	<-27dBm	<-28dBm
System capacity						
DRAM (MB)		128	128	128	128	128
Flash (MB)		128	128	128	128	128
MAC table		2K	2K	2K	2K	2K
VLAN ID		4K	4K	4K	4K	4K
Power supply						
AC adaptor		Input: 100-240V AC	Input: 100-240V AC	Input: 100-240V AC	Input: 100-240V AC	100-240V AC
		Output: 12V/0.5A	Output: 12V/1A	Output: 12V/0.5A	Output: DC53.5V/1.2A	
Max. consumption (W)		6	10	6	65(with POE)	6
Appearance						
Chassis	Dimensions (WxDxH mm)	130 x 100 x 28	200 x 150 x 38	130 x 100 x 28	170 x 98 x 28	238 x 140 x 32
	Weight (Kg)(empty)	0.2	0.3	0.2	0.6	0.4
Package	Dimensions (WxDxH mm)	256 x 114 x 46	290 x 202 x 54	256 x 114 x 46	250 x 230 x 55	364 x 198 x 75
	Weight (Kg)	0.3	0.5	0.3	0.8	0.6
Environmental Specifications						
Operating	Temperature	0~45℃	0~45℃	0~45℃	0~45℃	-20~70℃
	Humidity	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)
Storage	Temperature	-40℃~85℃	-40℃~85℃	-40℃~85℃	-40℃~85℃	-40℃~85℃
	Humidity	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)
Accessories						
Parts		Power adaptor				

Ordering Information

Model	Description
GP1702-4F	FTTH/O ONT, 1 GPON port (SC/UPC), 1 GE TX port, plastic hull, DC12V/0.5A, external adaptor
GP1702-4FC-S	FTTH/O ONT, 1 GPON port (SC/APC), 1GE+3FE TX ports, 1 RF interface (British Standard), plastic hull, AC220V external adaptor
GP1702-4G	FTTH/O ONT, 1 GPON port (SC/UPC), 4 GE TX ports, plastic hull, AC220V external adaptor
GP1702-4G-POE	FTTH/O ONT, 1 GPON port (SC/UPC), 4 GE TX ports, plastic hull, AC220V external adaptor
GP1702-4G-IE	Outdoor wide temperature ONT, 1 GPON port (SC/UPC), 4 GE TX ports, iron hull, AC220V , -20~70°C working temperature

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

EPON 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 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

BDCOM
FC CE