XPON 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.
BDCOM GP1702 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. Standing out with great interoperability and operability, BDCOM GP1702-1G series can interconnect well with OLTs of mainstream manufacturers in the industry.
GP1702 Series has 5 models:
GP1702-1G, GP1702-2FC-S, GP1702-4G, GP1702-4GM and GP1702-4GPM.

Product Characteristics

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

High Service Control Capability

BDCOM GP1702 series supports DBA and Rate-Limit. BDCOM GP1702 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. In addition, the QOS function of BDCOM GP1702 series guarantees a reliable service quality and service priority.bandwidth resource appropriately. It also supports QOS function, which guarantees a reliable service quality and service priority.

Rich OMCI&OAM Function

BDCOM GP1702 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 GP1702 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 GP1702 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.

Advanced Energy-saving Technique

GP1702 Series supports the “GreenTouch” architecture and “Smart@CHIP”.

Varied Application Scenarios

POE model GP1702-4GPM can support 802.af/at POE.

- GPON and EPON auto-adaptive
- Efficient bandwidth usage and Ethernet services
- The Splitting ratio ups to 1:128

Model Lists

GP1702-1G

XPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 1 GE TX

GP1702-2FC-S

XPON Multi-service Broadband Access ONT

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

GP1702-4G

XPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE TX

GP1702-4GPM

XPON Multi-service Broadband Access ONT

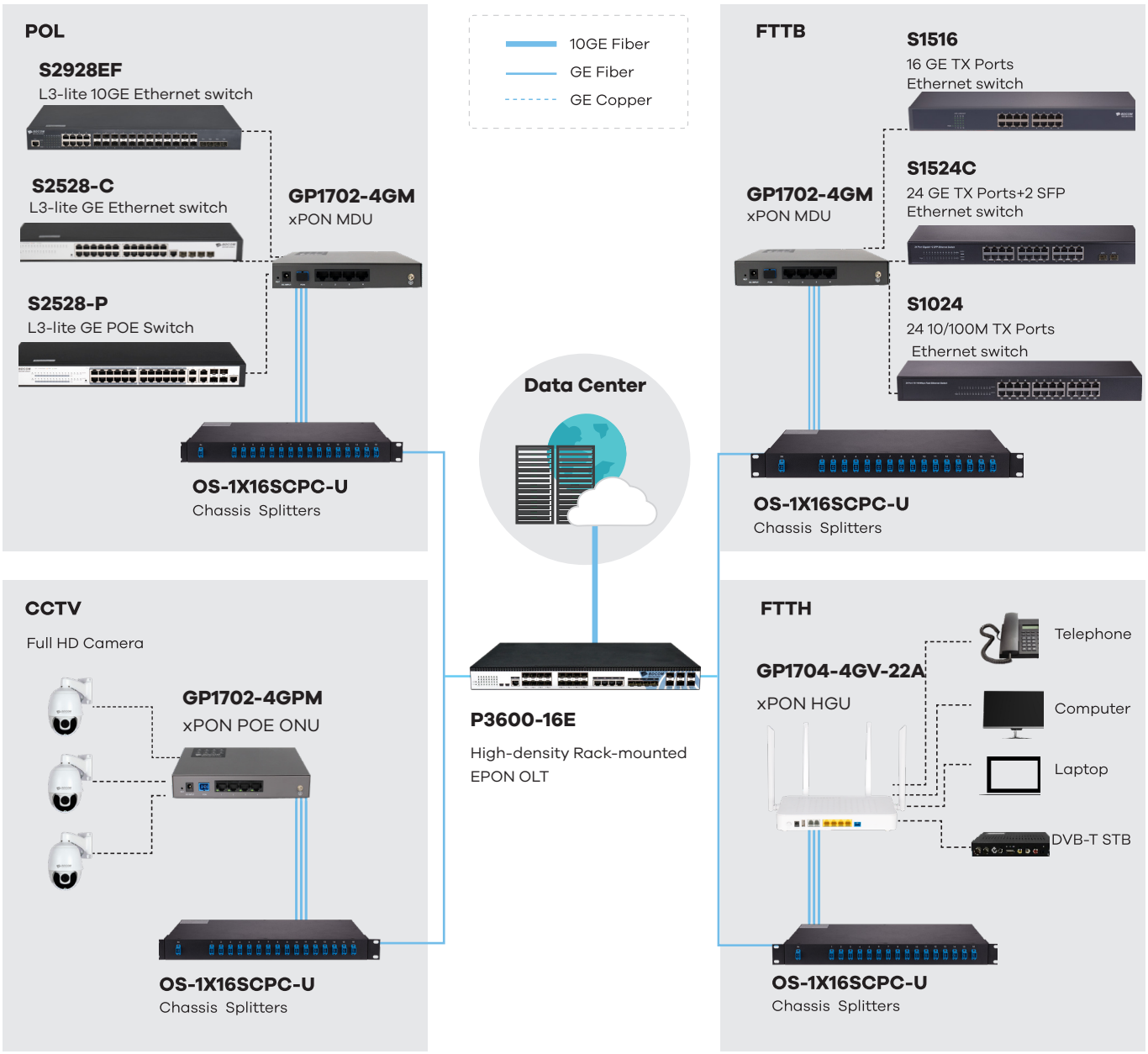
- 1 SC/UPC
- 4 GE POE

GP1702-4GM

XPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE TX

Application Diagram



System Performance

Item		GP1702-1G	GP1702-2FC-S	GP1702-4G	GP1702-4GM	GP1702-4GPM
Service interface						
PON ports		1 SC/UPC	1 SC/APC	1 SC/UPC	1 SC/UPC	1 SC/UPC
UNI ports		1 GE	1 GE + 1 FE 1 RF	4 GE	4 GE	4 GE POE
Optical power	TX power RX sensitive			0.5~5dBm -28dBm		
Power supply						
AC adaptor	Input:	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC
	Output:	12V/0.5A	12V/1A	12V/0.5A	12V/0.5A	DC53.5V/1.2A
Max. consumption (W)		6	10	6	6	65
Appearance						
Chassis	Dimensions (WxDxH mm)	80 x 75 x 24	140 x 105 x 30	130 x 100 x 28	170 x 98 x 28	170 x 98 x 28
	Weight (Kg) (empty)	0.1	0.2	0.2	0.4	0.4
Package	Dimensions (WxDxH mm)	178 x 126 x 35	277 x 176 x 38	256 x 114 x 46	250 x 230 x 55	250 x 230 x 55
	Weight (Kg)	0.2	0.4	0.3	0.6	0.8
Environmental specifications						
Operating	Temperature	0~45°C	0~45°C	0~45°C	0~45°C	0~45°C
	Humidity	10%~85%(non-condensing)				
Storage	Temperature	-40°C~85°C				
	Humidity	5%~95%(non-condensing)				
Accessories						
Parts		Power adaptor				

Ordering Information

Model	Description
GP1702-1G	FTTH/O ONT, 1 XPON port (SC/UPC), 1 GE TX port, supporting PPPoE, plastic hull, external adaptor
GP1702-2FC-S	FTTH/O ONT, 1 XPON port (SC/APC), 1 GE + 1 FE TX ports, 1 RF interface (British System, plastic hull, external adaptor
GP1702-4G	FTTH/O ONT, 1 XPON port (SC/UPC), 4 GE TX ports, plastic hull, external adaptor
GP1702-4GPM	FTTB ONU, 1 XPON port (SC/UPC), 4 GE POE ports, iron hull, 4 POE power ports, external adaptor (Output DC53.5V/1.2A)
GP1702-4GM	FTTB ONU, 1 XPON port (SC/UPC), 4 GE TX ports, iron hull, external adaptor

Technical Specifications

Standards

- ITU-T G.984/G.988,
- IEEE802.3ah
- GBT33845-2017, YD/T 1475-2006
- 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, OAM,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