# GP1702 Series

xPON PoE MDU (Multi-Dwelling Unit)


## Overview

BDCOM GP1702 Series is a new generation smart PoE MDU for integrated multi-service broadband access networks.

GP1702 PoE MDU Series, involving multiple models, supports common enterprise broadband access service and POE service.

BDCOM GP1702 PoE MDU 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/T1475-2006, 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 PoE MDU Series includes 3 models:
GP1702-4GPM
GP1702-8GPM, GP1702-24GPM

## 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.

### Complete Interaction Capacity

BDCOM GP1702 PoE MDU 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 GP1705 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.

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

# Highlights

## Advanced Energy-saving Technique

GP1702 Series supports the "GreenTouch" architecture and "Smart@CHIP".

## 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.

## Varied Application Scenarios

GP1702 PoE MDU series can support 802.3af/at standard.All models support 802.3af full load on all ports.

# Model Lists

### GP1702-4GPM

xPON PoE MDU(Multi-Dwelling Unit)

· 1-Port SC/UPC
· 4-Port Gigabit PoE

### GP1702-8GPM

xPON PoE MDU(Multi-Dwelling Unit)

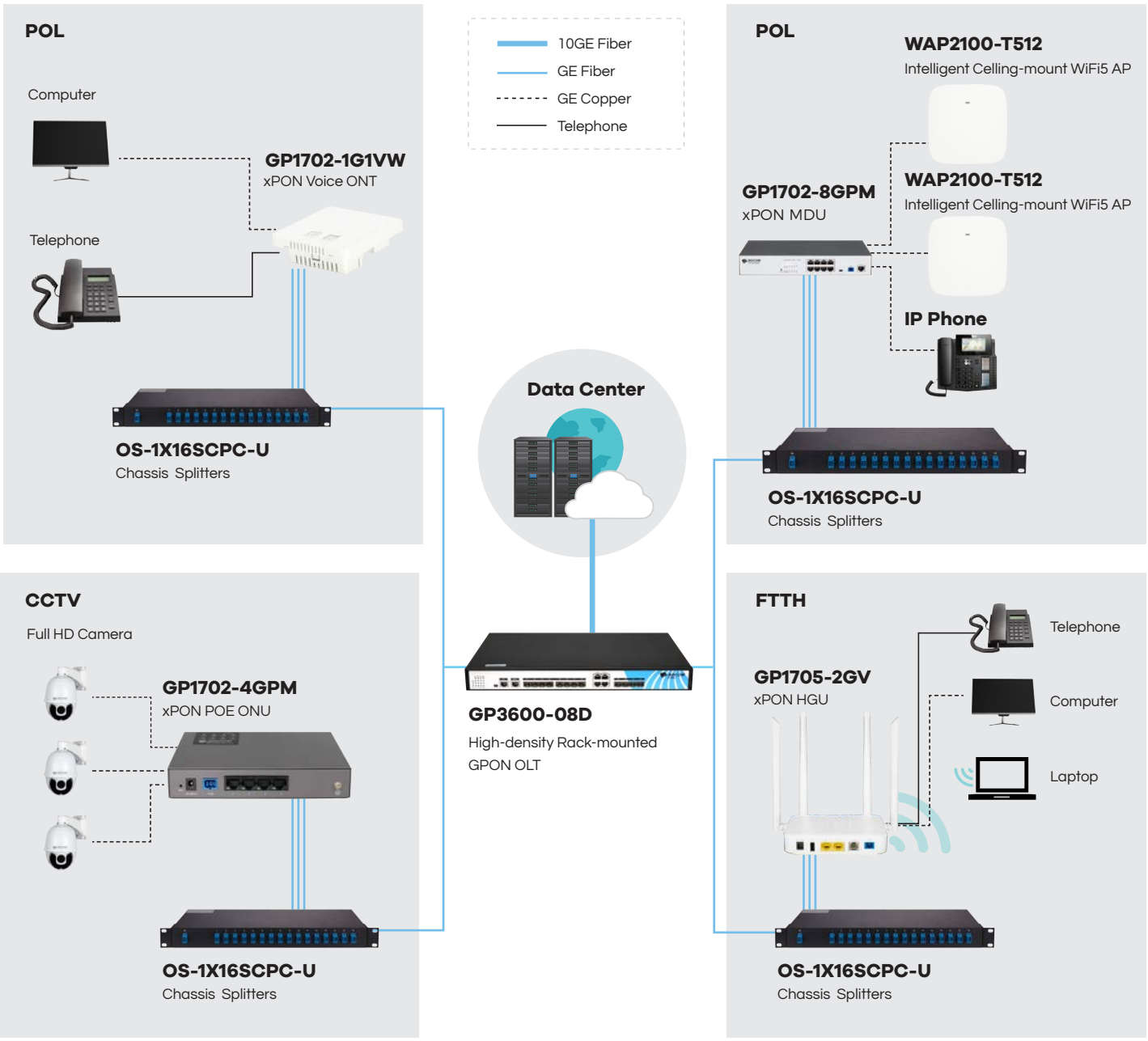
· 1-Port SC/UPC
· 8-Port Gigabit PoE

### GP1702-24GPM

xPON PoE MDU(Multi-Dwelling Unit)

· 1-Port SC/UPC
· 24-Port Gigabit PoE

# Application Diagram



# System Performance

| Item | | GP1702-4GPM | GP1702-8GPM | GP1702-24GPM |
|---|---|---|---|---|
| **Service interface** | | | | |
| PON ports | | 1-Port SC/UPC | 1-Port SC/UPC | 1-Port SC/UPC |
| UNI ports | | 4-Port Gigabit PoE | 8-Port Gigabit PoE | 24-Port Gigabit PoE |
| Optical power | TX power | 0.5~5dBm | 0.5~5dBm | 0.5~5dBm |
| | RX sensitive | -28dBm | -28dBm | -28dBm |
| **Power supply** | | | | |
| Power supply | | 12V/1A | 100-240V AC | 100-240V AC |
| Max. consumption (W) | | 10 | 15 | 25 |
| PoE budget (W) | | 65 | 125 | 370 |
| **Appearance** | | | | |
| Chassis | Dimensions (WxDxH mm) | 170 x 98 x 28 | 280 x180 x 44 | 440 x 207 x 44 |
| | Weight (Kg) (empty) | 0.7 | 1.7 | 3.0 |
| Package | Dimensions (WxDxH mm) | 250 x 230 x 55 | 400 x 220 x 63 | 500 x 323 x 75 |
| | Weight (Kg) | 0.9 | 2.2 | 3.7 |
| **Environmental specifications** | | | | |
| Operating | Temperature | 0~45°C | | |
| | Humidity | 10%~85%(non-condensing) | | |
| Storage | Temperature | -40°C~85°C | | |
| | Humidity | 5%~95%(non-condensing) | | |
| **Accessories** | | | | |
| Parts | | Power adaptor/power cable | | |

# 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

### XPON 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

# Ordering Information

| Model | Description |
|---|---|
| GP1702-4GPM | xPON PoE ONU, 1-Port GPON/EPON (SC/UPC), 4-Port Gigabit PoE+, metal casing, DC12V/1.17A power adaptor |
| GP1702-8GPM | xPON PoE MDU (Multi-Dwelling Unit), 1-Port GPON/EPON (SC/UPC), 8-Port Gigabit PoE+, metal casing with cooling fan, single AC-220V power supply, 130W PoE budget) |
| GP1702-24GPM | xPON PoE MDU(Multi-Dwelling Unit), 1-Port GPON/EPON (SC/UPC), 24-Port Gigabit PoE+, metal casing with cooling fan, single AC-220V power supply, 370W PoE budget) |



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