GP1702 Series

xPON PoE MDU (Multi-Dwelling Unit)

Overview

Vivio 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.

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

Complete Interaction Capacity

Vivio 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, Vivio 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

Vivio GP1702 series supports DBA and Rate-Limit. Vivio 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 Vivio 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

Vivio 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)

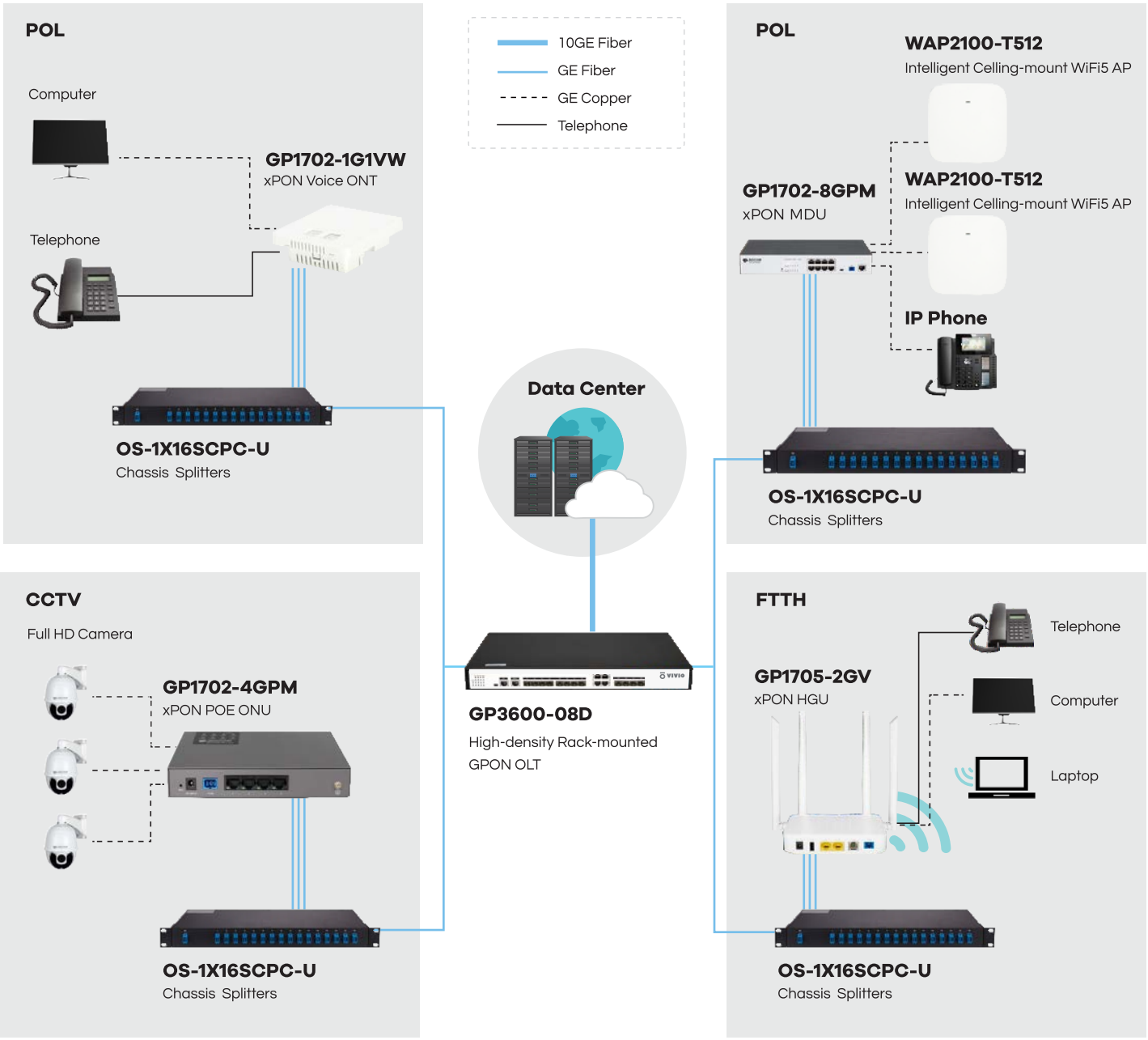
· 1-Port SC/UPC
· 8-Port Gigabit PoE

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)