GP1802-3G1E Series

Commercial XGS-PON ONT(SFU)



Product Overview

BDCOM GP1802-3G1E Series SFU is an intelligent SFU terminal product developed by BDCOM for multi-service converged networks. It adheres to ITU-T standards G.987.3, G.988, and G.989, ensuring excellent interoperability and usability, allowing seamless interconnection and interoperability with OLT equipment from mainstream industry vendors.

Product Characteristics

Superior Access Performance

Supports downlink 10Gbps/uplink 10Gbps PON transmission rate. Combined with OLT equipment, it can achieve a splitting ratio of up to 1:256, with a network coverage radius of up to 20KM.

Secure Service Bearing Capability

With 30 years of professional R&D technology, BDCOM has developed VLAN, port isolation, loop detection, ACL, QoS, security filtering, storm control, and other technologies, ensuring this ONU product has secure service bearing capabilities.

Refined Service Control Capability

Supports DBA and Rate-Limit functions. Advanced dynamic bandwidth allocation mechanism and precise bandwidth limiting function allow all users to share 10Gbps reasonably. It supports QoS function to ensure reliable service quality and prioritization of different services in the network.

Rich Control Functions

Supports ITU-T defined standard OMCI, Telecom CTC2.1/3.0 defined standard OAM and extended OAM, including configuration, alarms, performance monitoring, fault isolation, and security management. It also supports BDCOM-defined private OMCI and OAM, enabling richer service control in conjunction with BDCOM OLT.

2.5Gbps UNI

10Gbps Uplink/ downlink XGS-PON

The splitting ratio ups to 1:256

Product Characteristics

Comprehensive Interconnection and Interoperability

Adheres to ITU-T G.987.3, G.988, G.989, and Chinese communication industry standard GB/T 43699-2024 "Access Network Technical Requirements 10Gbit/s Symmetric Passive Optical Network (XGS-PON)," ensuring excellent interoperability and operability. It can interconnect with mainstream OLT equipment from leading industry manufacturers, supporting hybrid networking to minimize network construction costs.

Advanced Green Energy-saving Technology

Based on industry-leading "GreenTouch" architecture and "Smart@CHIP" intelligent chip technology, it offers deep energy saving and low-carbon environmental protection.

Model Lists

GP1802-3G1E

XGS-PON ONT(SFU)



· 1-Port XGS-PON(SC/UPC)
· 3-Port Gigabit RJ45
· 1-Port 2.5G/Gigabit RJ45

GP1802-3G1EM

XGS-PON ONT(SFU)



· 1-Port PoF XGS-PON(SC/UPC)
· 3-Port Gigabit RJ45
· 1-Port 2.5G/Gigabit RJ45

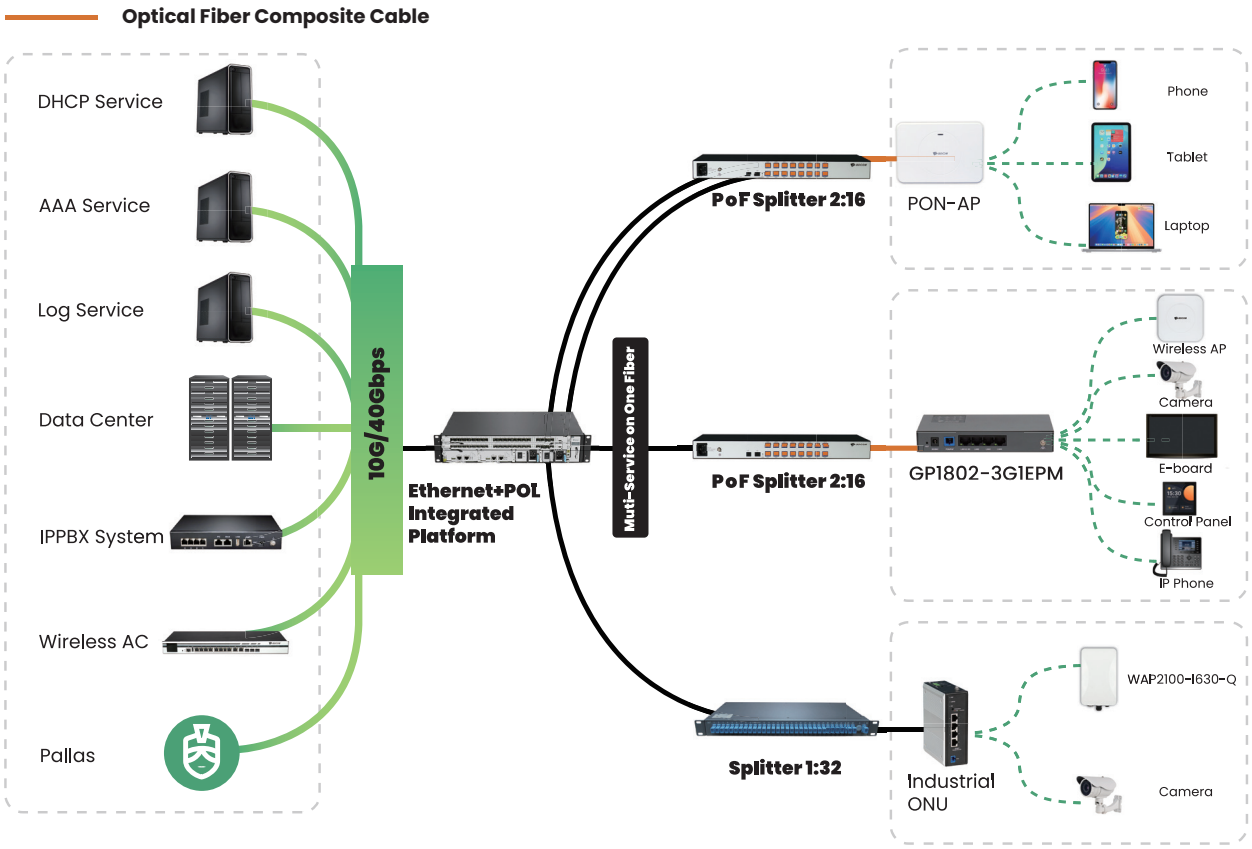
GP1802-3G1EPM

XGS-PON PoE ONT(SFU)



· 1-Port PoF XGS-PON(SC/UPC)
· 3-Port Gigabit PoE+
· 1-Port 2.5G/Gigabit PoE+

Application Topology



System Performance

Item		GP1802-3G1E	GP1802-3G1EM	GP1802-3G1EPM
Gigabit RJ45		3	3	3
2.5G RJ45		1	1	1
PoE		N/A	N/A	IEEE 802.3at/af standard PoE budget: 55W
Environment		Input rated voltage: DC 12V/1.0A (powered by external adapter)	Input rated voltage: DC 12V/1.0A (powered by external adapter)	Input rated voltage: DC 54V/1.17A (powered by external adapter)
		Operating environment: 0°C~45°C; 10%~90non-condensing		
PON port		Optical interface type: SC/UPC	Optical interface type: SC/UPC Supports PoF (Power over Fiber)	Optical interface type: SC/UPC Supports PoF (Power over Fiber)
Chassis	Dimensions(WxDxH mm)	140×105×28.9	170×98×29.7	170×98×29.7
	Weight(Kg)(empty)	0.177	0.443	0.443
Package	Dimensions(WxDxH mm)	231×126×42	272×120×50	250×230×55
	Weight(Kg)	0.32	0.57	0.82
Flash		128M	128M	128M
DDR		512M	512M	512M

Technical Specifications

PON interface

- Downlink 10Gbps / Uplink 10Gbps transmission rate
- Network coverage radius: 20 kilometers
- Receiver sensitivity: no more than -28dBm
- Transmit optical power: 0.5~5dBm

Standards

- ITU-T G.987.3, G.988, G.989
- People's Republic of China Communication Industry Standard GB/T 43699-2024 "Access Network Technical Requirements for 10Gbit/s Symmetrical Passive Optical Network (XGS-PON)"
- IEEE 802.1Q, VLAN

Multicast

- Supports IGMP-Snooping
- Supports CTC-defined dynamic multicast function
- Supports MLD-Snooping

QoS

- Backpressure flow control (half-duplex)
- IEEE 802.3x flow control (full-duplex)
- Head of Line blocking prevention mechanism
- IEEE 802.1p, CoS
- 8 priority queues per port
- WR, SP, and FIFO queue scheduling algorithms
- Port rate limiting

Reliability

- Supports Loopdetect
- Supports Dying-Gasp
- Supports Type B dual-homing protection

Network Security

- Port protection
- Firewall MAC/IP/Port/URL/ Domain filtering
- DDoS
- Port storm suppression
- Port mapping

Configuration Management

- Multiple management methods including Web, TELNET, R069, OMCI, OAM, etc.
- Software upgrades via TFTP/ WEB/TR069/OLT

Heat dissipation

- During long-term use (24 hours), the device's heat generation will not cause performance degradation or deformation/ damage of components

Ordering Information

Model	Description
BDCOM GP1802-3G1E	XGS-PON ONU, 1-Port XGS-PON (SC/UPC), 3-Port Gigabit RJ45, 1-Port 2.5G RJ45, plastic casing, DC12/1.0A external power adaptor
BDCOM GP1802-3G1EM	XGS-PON ONU, 1-Port XGS-PON (SC/UPC, supports PoF power input), 3-Port Gigabit RJ45, 1-Port 2.5G RJ45, metal casing, DC12/1.0A external power adaptor
BDCOM GP1802-3G1EPM	XGS-PON PoE ONU, 1-Port XGS-PON (SC/UPC, supports PoF power input), 3-Port Gigabit PoE+, 1-Port 2.5G PoE+, metal casing, 55W PoE budget, DC 54V/1.17A external power adaptor

Copyright © Shanghai Baud Data Communication Co., LTD.2026. All Rights Reserved.

This document is BDCOM Public Information. BDCOM reserves the right to alter, update and otherwise change the information contained in the document from time to time.

BDCOM