

# GP1802-1X

XGS-PON 10G ONU



## Product Overview

BDCOM GP1802-1X ONU is an intelligent SFU terminal product developed by BDCOM for multi-service converged networks. This product adheres to the standards ITU-T G.987.3, G.988, and G.989, ensuring excellent interoperability and operability, enabling seamless interconnection with OLT devices from major industry vendors.

## Product Characteristics

### Superior Access Performance

Supports a downstream/upstream PON transmission rate of 10Gbps, achieving a splitting ratio of up to 1:256 when used with OLT equipment, with a network coverage radius of up to 20KM.

### Secure Service Carrying Capacity

BDCOM, with 30 years of professional R&D experience, has developed technologies such as VLAN, loop detection, port isolation, ACL, QoS, security filtering, and storm control, ensuring that this ONU product has secure service carrying capabilities.

### Refined Service Control Capability

Supports DBA and rate-limiting functions, with advanced dynamic bandwidth allocation mechanisms and precise bandwidth limiting, enabling users to fairly share 10Gbps. QoS functionality ensures reliable service quality, prioritizing services and guaranteeing network performance for various services.

### Rich Control Functions

Supports standard OMCI as defined by ITU-T, as well as standard OAM and extended OAM as defined by Telecom CTC2.1/3.0, including configuration, alarms, performance monitoring, fault isolation, and security management. It also supports BDCOM's proprietary OMCI for more comprehensive service control when paired with BDCOM OLTs.



10Gbps uplink  
10Gbps downlink



10Gbps wire-speed  
forwarding  
performance



The splitting ratio  
ups to 1:256

## Product Characteristics

### Comprehensive Interconnection and Interoperability

Complies with ITU-T G.987.3, G.988, and G.989, as well as China's telecom industry standard GB/T 43699-2024 "Access Network Technical Requirements for 10Gbit/s Symmetrical Passive Optical Network (XGS-PON)," ensuring excellent interoperability and operability. It can interconnect with OLT equipment from major industry vendors for hybrid networking, minimizing network construction costs.

### Advanced Green Energy Technology

Based on industry-leading "GreenTouch" architecture and "Smart@CHIP" intelligent chip technology, it offers deep energy savings and a low-carbon, environmentally friendly solution.

## Model Lists

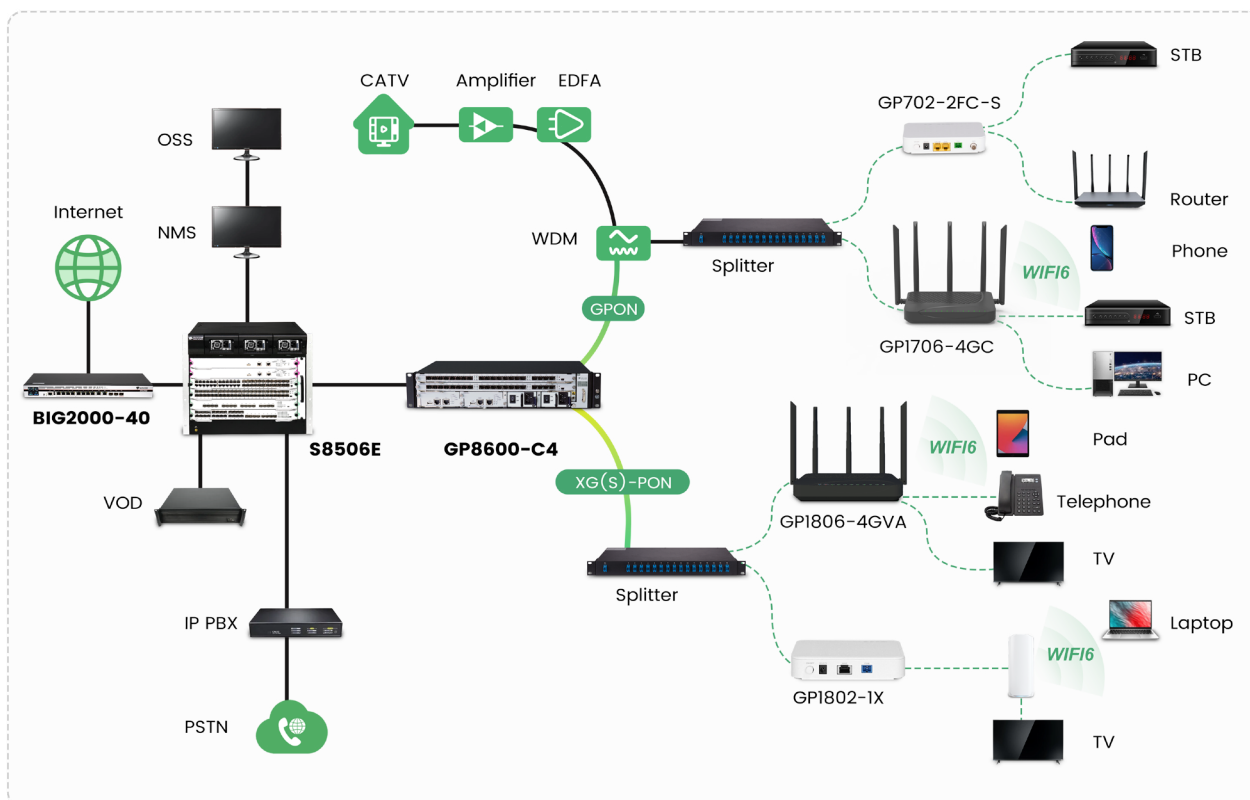
### GP1802-1X

xPON Industrial ONT



- 1-Port XGS-PON(SC/UPC)
- 1-Port 10GE RJ45

## Application Topology



## System Performance

Item	GP1802-1X
PON port	1-port XGS-PON(SC/UPC)
UNI port	1-port 10G RJ45
Dimensions	140×105×30mm (L×W×H)
Working environment	0℃~45℃; 10%~90% non-condensing
Power supply	DC12V/1.0A (powered by external adapter)

# Technical Specifications

## PON port

- Downlink 10Gbps / Uplink 10Gbps transmission rate
- Network coverage radius: 20 km
- Receiver sensitivity:  $\leq -28\text{dBm}$
- Transmitter optical power: 0.5~5dBm
- Optical interface type: SC/UPC

## Standards

- ITU-T G.987.3, G.988, G.989
- GB/T 43699-2024 "Access Network Technical Requirements for 10Gbit/s
- Symmetrical Passive Optical Network (XGS-PON)"
- IEEE 802.1Q, VLAN

## Multicast

- IGMP-Snooping, IGPM Proxy
- MLD-Snooping, MLD Proxy

## QoS

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

## Reliability

- Supports Loop-detect function
- Supports Dying-Gasp function
- Supports Type B dual-homing protection

## Network Security (HGU mode)

- Supports port protection
- Firewall with MAC/IP/Port/URL/ domain name filtering
- DDoS protection
- Supports port storm suppression
- Port mapping

## Management Configuration

- Multiple management methods: Web, Telnet, TR069, OMCI, OAM, etc.
- Software upgrades via TFTP/ WEB/TR069/OLT

## Thermal Performance

- Continuous operation (24 hours) without performance degradation or component damage due to heat.

## Environmental Requirements

- Operating temperature/humidity: 0°C ~45°C ; 10%~90% non-condensing
- Input rated voltage: DC 12V/1.0A (powered by external adapter)

# Ordering Information

Model	Description
BDCOM GP1802-1X	FTTB/O Type ONU, 1- port XGS-PON (SC/UPC), 1-port 10GE RJ45, plastic casing, DC 12V / 1.0A external adapter