



Shanghai Baud Data
Communication Co., Ltd.

xPON Series

BDCOM GP1806-4G Series
Commercial 10G HGU

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Product Overview

BDCOM GP1806-4G series is an intelligent home gateway terminal product launched by BDCOM for multi-service converged networks. It integrates wireless, voice and CATV functionalities. It is compatible with the ITU-T G.987.3, G.988, G.989 standards, ensuring excellent interoperability and operability. It can achieve seamless interconnection with OLT from leading industry manufacturers.



GP1806-4GA



GP1806-4GVA



GP1806-4GVCA

Product Characteristics

➤ Superior Access Performance

Supports downlink 10Gbps/uplink 2.5Gbps PON transmission rates. Combined with OLT devices, it achieves a high split ratio of up to 1:256, extending network coverage up to 20KM.

➤ Secure Service Carrying Capacity

With over 30 years of professional R&D expertise, BDCOM has developed targeted technologies including VLAN, port isolation, ACL, QoS, security filtering, and storm control. These ensure secure business carrying capacity for the ONU product.

➤ Refined Service Control Capability

Supports DBA (Dynamic Bandwidth Allocation) and Rate-Limit features, providing an advanced dynamic bandwidth allocation mechanism and precise bandwidth limiting capabilities. This ensures that all users can share the 10Gbps (XG-PON network) bandwidth resources more efficiently. Additionally, it supports QoS (Quality of Service) functionality,

enabling reliable service quality and ensuring prioritization and quality of service for different types of network traffic and applications.

➤ **Extensive Control Functions**

Supports the ITU-T defined standard OMCI, which includes configuration, alarm, performance monitoring, fault isolation, and security management. Also supports the BDCOM defined proprietary OMCI, enabling more advanced service control in conjunction with our OLT.

➤ **Seamless Interoperability**

Complies with ITU-T G.987.3, G.988, G.989 and the China communication industry standard GB/T 39577-2020 for 10Gbit/s passive optical networks (XG-PON), BDCOM GP1806-4G ensures excellent interoperability and operability. It allows for seamless interconnection with leading industry OLT devices and enables hybrid networking, minimizing network deployment costs.

➤ **Advanced Green Energy-Saving Technology**

Incorporates BDCOM's advanced "GreenTouch" architecture and "Smart@CHIP" intelligent chip technology, achieving deep energy efficiency and low carbon footprint, ensuring environmentally-friendly operations.

Technical Parameters

Item	Description		
	GP1806-4GA	GP1806-4GVA	GP1806-4GCA
UNI port	4*GE		
	-	1*FXS	1*British RF
	WiFi6 external 5 antennas		
	1 USB		

PON port	Transmission rate: Downlink 10Gbps/uplink 2.5Gbps		
	Network Coverage Radius: 20 kilometers		
PON port	Receiver Sensitivity: $\leq -28\text{dBm}$		
	Transmit Optical Power: 0.5~5dBm		
PON port	Optical interface type: SC/UPC	Optical interface type: SC/UPC	Optical interface type: SC/APC
Standards	ITU-T G.987.3, G.988, G.989 GB/T 39577-2020 10Gbit/s Passive Optical Networks (XG-PON) IEEE 802.1Q, VLAN		
Data Forwarding	Routing Mode, Bridging Mode, and Routing + Bridging Hybrid Mode		
DNS	DNS Relay		
DHCP	DHCP server		
VLAN	Port-based VLAN IEEE 802.1Q VLAN		
Multicast	Supports IGMP-Snooping, IGPM Proxy Supports MLD-Snooping, IGPM Proxy Supports Full-Routing Multicast		
VOIP	-	SIP, H.248	-
CATV	-	-	AGC: -10 ~ +2dBm; Output level $\geq 70\text{dBuV}$
WIFI	802.11b/g/n/ac/ax MIMO, with a maximum rate of 3000Mbps. multiple SSIDs and SSID encryption		
QoS	Backpressure Flow Control (Half-Duplex) IEEE 802.3x Flow Control (Full-Duplex) Preventing Head-of-Line Blocking IEEE 802.1p, CoS 8 Priority Queues per Port WR, SP, and FIFO queue scheduling algorithms		
Reliability	Loop Detection Dying-Gasp Type B Dual Homing Protection		
Security	Port Protection Firewall: MAC/IP/Port/URL/Domain filtering DDoS Port Storm Suppression		

	Port mapping
Management Configuration	Web, TELNET, TR069, OMCI Software Upgrade through TFTP, WEB, TR069, and OLT
Dimensions (WxDxH)	185*135*36mm (excluding antennas)
Heat dissipation	Extended use (24 hours) does not result in performance degradation or damage due to device overheating or deformation.
Environment requirements	Operating environment: 0°C~45°C; 10%~90% non-condensing
	Input rated voltage: DC12V/2.0A (external adapter)
	Power: less than 24W

Ordering Information

Model	Description
BDCOM GP1806-4GA	10G WiFi ONU with 1-port XG-PON (SC/UPC), 4-port GE, 1 USB, external 5 antennas (WiFi6 3000M), plastic casing, DC12/2.0A external adapter.
BDCOM GP1806-4GVA	10G WiFi ONU with 1-port XG-PON (SC/UPC), 4-port GE, 1-port POTS, 1 USB, external 5 antennas (WiFi6 3000M), plastic casing, DC12/2.0A external adapter.
BDCOM GP1806-4GCA	10G WiFi ONU with 1-port XG-PON (SC/APC), 4-port GE, 1-Port RF, 1 USB, external 5 antennas (WiFi6 3000M), plastic casing, DC12/2.0A external adapter.

For More Information

For more information about [BDCOM GP1806-4G](#), please contact your local BDCOM account representative.

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