


GP4201X

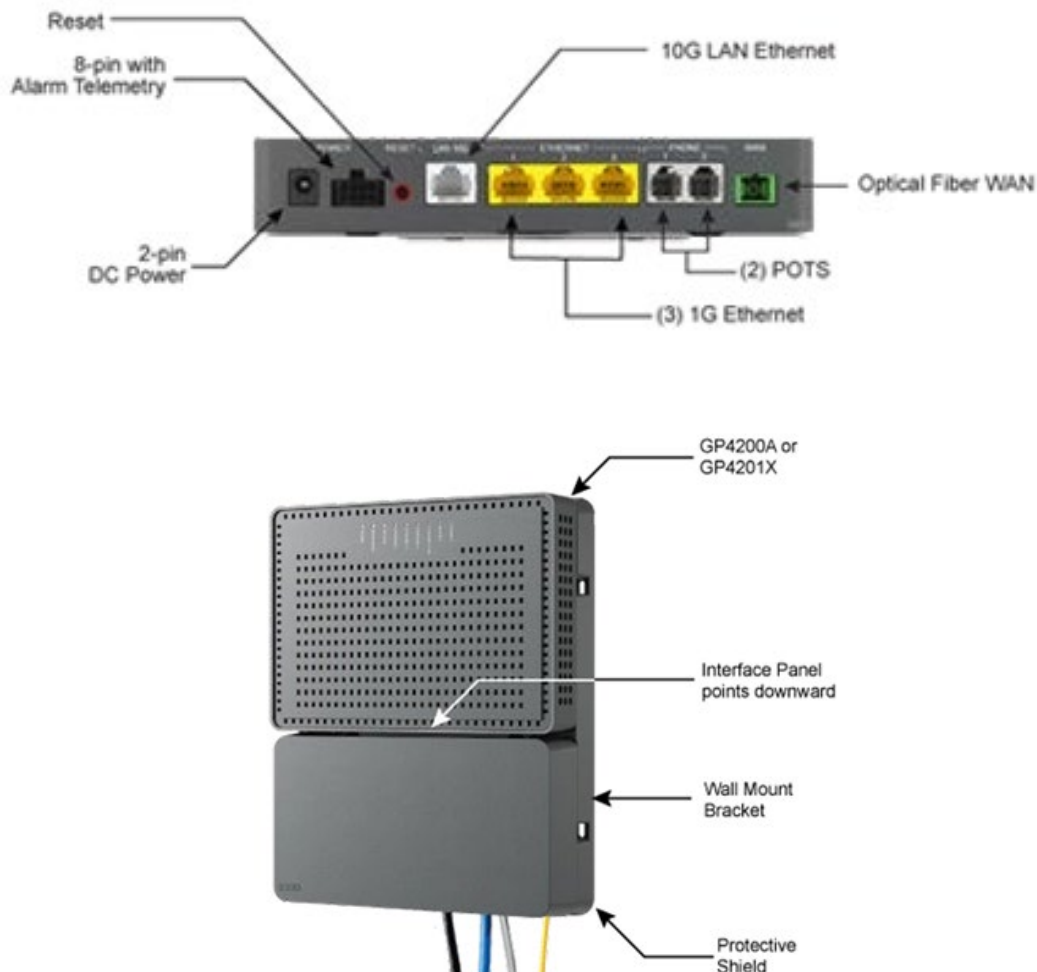


The GigaPoint GP4201X optical network terminal is an indoor, 10 Gbps XGS-PON service delivery terminal that provides broadband connectivity to the subscriber. This high-performance terminal features one 10 Gigabit Ethernet (GE) interface and three 1 Gigabit Ethernet interfaces delivering broadband data and IPTV video services to residential homes, small businesses, and multi-dwelling units. Two voice lines supporting carrier-grade VoIP are also available. Connecting a GigaSpire or GigaCenter to the LAN port of the GP4201X allows for the delivery of a sensational Wi-Fi experience to your subscribers. Decoupling the broadband demarcation from the premises system provides more flexibility and reduces costs.

The GP4201X Optical Network Terminal (ONT) is designed for the industry-leading Calix E-Series platforms. The GP4201X ONT terminates an XGS-PON fiber link at the subscriber's location and provides industry-standard interfaces for the customer premises equipment. The ONTs enable subscribers to receive broadband data, IPTV, and VOIP on a single fiber. At the ONT, the optical signal is converted to the appropriate electrical signals for transmission over the residence's existing twisted pair and CAT5 cables.

The GP4201X ONT is easy to install, activate, and maintain. Innovative software management tools allow the broadband service provider to quickly configure, activate and upgrade ONTs from a remote location. Extensive troubleshooting capabilities, remote software downloads, and easy-to-use service profile menus ensure that services are delivered and ONTs are maintained without the need to initiate unnecessary truck rolls and hardware upgrades.

Smart Activate simplifies installation and turn-up by using a laptop or phone to configure and activate the ONT at the premises location. The technician can install and turn up an ONT without assistance from the central office or use of special equipment.



KEY ATTRIBUTES

Standards-based Full Service Access Network (FSAN), ITU-T XGS-PON compliant

One 10 Gigabit Ethernet (GE) interface

- Symmetrical 10 Gbps bandwidth for residential IPTV and data services
- Multi-rate 100M/1G/2.5G/5G/10G BASE-T Ethernet, auto-negotiating

Three 1 Gigabit Ethernet (GE) interfaces

- Symmetrical 1 Gbps bandwidth for residential IPTV and data services
- Multi-rate 10/100/1000 BASE-T Ethernet, auto-negotiating

Two voice lines

- Carrier grade SIP, H.248,
- MGCP VoIP
- TDM GR-303/TR-08 Mode II/
- GR-57, GR-08 (TR-08 Mode I)
- Voice services

Supports multiple data service profiles

Traffic management and Quality of Service (QoS)

- 802.1Q VLANs
- 802.1p service prioritization
- Q-in-Q tagging
- Multiple VLANs
- Rate limiting
- DiffServ
- Pre-defined QoS on service type

IPTV, IGMPv2, and IGMPv3

- IGMP Snooping and Proxy
- IGMP Fast Leaves

Complete Operations, Administration, Maintenance, and Provisioning (OAM&P) support via SMx

SPECIFICATIONS

Dimensions

- Length: 7.02 in (178.40 cm)
- Width: 5.05 in (128.20 cm)
- Height: 1.23 in (31.20 cm)

PON Characteristics

- Max. split: 128 XGS-PON
- Maximum Optical Distribution Network (ODN) Attenuation: XGS 29 dB
- Optical Receiver: 1577 nm: -28 dBm to -9 dBm
- Optical Transmitter: 1270 nm: +4 to +9 dBm

Interfaces

- Telephony: Two RJ-11 connectors
- Data/IPTV:
One 100M/1G/2.5G/5G/10G Base-T Ethernet ports, RJ-45 connector
3 10/100/1000 Base-T Ethernet ports, RJ-45 connectors
- PON: Single 9/125 μm (single mode) fiber, SC/APC connector, minimum 50 dB return loss
- Power: 2-pin connector, 8-pin connector

Telephony

- General: SIP, H.248, MGCP
- Number of lines: 2
- RENs per line: 5 maximum
- Drop length: Maximum 500 feet (305m)
- DSO Output: 23.5 to 25 mA
- Ring Voltage: 55 VAC

Environmental

- Operating temperature: Indoor ambient temperature 32°F to 104°F (0°C to 40°C)
- Operating/storage relative humidity: 8 to 95 % non-condensing

Data

- Drop length: 328 feet (100 m) maximum using CAT5e cable for 1G and CAT6a or better for 10G
- Auto MDI/MDIX crossover for 1000/2500/10G BASE-TX ports
- Traffic Management and QoS: 802.1Q VLAN; 802.1p Video, Data and Management Priorities; Q-in-Q tagging; Per Port Rate Shaping; Rate Limiting
- MTU 9600 Bytes

Certification and Compliance

- Emissions:
 - FCC Part 15 Class B
 - IC ICES-003 Class B
 - CISPR24 and CISPR35
- Safety:
 - UL 62368
 - UL 1697 approved
 - CE Mark
- IEEE: 802.3, 802.3AB, 802.3U, 802.1p, 802.1Q, 802.3bz (2500BASE-T)

Powering and Alarms

- 2-pin connector for use with AC/DC adapter
- 8-pin connector for use with UPS
- Input voltage: 12 V DC (nominal), 10.5V DC (min), 14.4V DC (max)
- Battery backup time rated capacity: 8 hours based on Telcordia GR-909 calculation methods using recommended UPS. Contact Calix for recommended UPS.

ORDERING INFORMATION

Order Code	Description
System	
100-05880	GP4201X GigaPoint, 2 POTS, 1 10GE, 3 GE - AM Power Adapter
100-05881	GP4201X GigaPoint, 2 POTS, 1 10GE, 3 GE - Universal Power Adapter
Mounting Hardware	
100-05973	GP4201X/GP4200A Wall Mount Fiber Management Bracket - Quantity 30
Power Adapters/Uninterruptable Power Supply	
100-05945	Power Adapter CPA4 12V 2.0Amp - AM Type A
100-05948	Power Adapter CPA4 12V 2.0Amp -Universal
100-04068	Indoor UPS, 12V, 7.2 AH, 36 W, Black – AM Type B Grounded
Accessories	
100-03893	Indoor UPS Power Cord, 7 pin UPS to 8 pin ONT Male, 1M Black
100-03894	Indoor UPS Power Cord, 7 pin UPS to 8 pin ONT Male, 3M Black
100-03895	Indoor UPS Power Cord, Un-terminated to 8 pin ONT Male, 6M Black

Note: Calix believes the information in this publication to be accurate as of publication date, and is not responsible for error. Product Specifications are subject to change without notice.