

Datasheet



The GigaPro[™] GPR4001XH is a thermally hardened, XGS-PON network terminal providing broadband connectivity and optional 802.3bt PSE DC voltage to ethernet connected devices . This high-performance terminal features one 10GE and three GE interfaces. This system can be deployed as a standalone or more commonly as an ideal partner to GigaSpire and GigaPro PoE enabled indoor or outdoor gateways. The Unlimited Subscriber GigaPro GPR4001XH is a component of the Calix Broadband Platform and is paired with the industry-leading Calix E-Series fiber access XGS-PON optical line terminals (OLTs).



EASY TO INSTALL AND ACTIVATE

With the GigaPro[™] GPR4001XH ONT, Calix has redefined how to install and activate fiber-delivered services to the subscriber's premises. Using the Calix Smart Activate feature, a field technician can install and apply the subscriber's service profile without special equipment or assistance from the central office.

Calix also provides an innovative software portfolio supporting end-to-end management through SMx enabling the broadband service provider to configure, activate, and upgrade the systems remotely. GPR4001XH using in-band management. Extensive troubleshooting capabilities, remote software downloads, and easy-to-use service activation ensures that broadband services are delivered and maintained without needless truck rolls and hardware upgrades. Employing the GPR4001XH allows broadband service providers to reduce their operational expenses while effectively delivering the ultimate multi-gig Wi-Fi experience to their subscribers.

CALIX BROADBAND PLATFORM

All Calix ONTs resides within the Broadband Platform. The Calix Broadband Platform empowers Broadband Services Providers (BSP) with a transformative network and management foundation needed to deliver and support managed residential and business services. The Broadband Platform is designed to help BSPs overcome the challenges they face with the complexity of deploying, integrating, managing, and scaling traditional broadband networks. With the Broadband Platform, BSPs can simplify operations, confidently integrate new technology, and deliver and support differentiated services faster and with less risk.

KEY ATTRIBUTES

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

One 10 Gigabit Ethernet (GE) interface

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

Power Over Ethernet

• 802.3bt PSE

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

Complete OAM&P support via SMx and Calix Operations Cloud

• 802.1Q VLANs

Mounting Options

- · Wall mount with key holes
- Desktop mount: horizontal

Powering Options

- AC for PSE support
- Optional 12V DC 2 pin





SPECIFICATIONS

Dimensions

- Length: 10.0 in (253 mm)
- Width: 6.8 in (173 mm)
- Height: 2.3 in (58 mm)
- Weight: 4.2 lbs. (1.9kg)

PON Characteristics

- Maximum Optical Distribution, (ODN) Attenuation: XGS, 29 dB
- Optical receiver 1577nm: -28 dBm to -9 dBm
- Optical transmitter 1270nm:
 +4 to +9 dBm

Interfaces

- PON: Single 9/125 μm (single mode) fiber, SC/APC connector, minimum 50 dB return loss
- Data/IPTV: One 100M/1G/2.5G/5G/10G BASE-T Ethernet port, RJ-45 connector; Three 10/100/1000 Base-T Ethernet ports, RJ-45 connectors
- Power: AC connector, DC 2-pin connector

Power over Ethernet (PoE)

- PoE PSE (Power Sourcing Equipment) support on each LAN port
 - Type 1 802.3af: PSE 15.4W, 2 pairs
 - Type 2 802.3at: PSE 30W, 2 pairs
 - Type 3 802.3bt: PSE 60W, 2 or 4 pairs class 0-4, 4 pairs class 5-6
 - Type 4 802.3bt: PSE 90W, 4 pairs class 7-8
- Total Budget
 - 120W over full operating temperature range (Default)
 - 180W over -40° to 40°C (-40° to 104°F) operating temperature range

Data

- Drop length: 328 feet (100 m) maximum using CAT5e cable for 1G and CAT6a or better for 10G
- Auto MDI/MDIX crossover for 1G/2.5G/10G BASE-T 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
- IC ICES-003 Class B
- CISPR24 and CISPR35
- Safety:

 UL62368
 CE Mark
- IEEE: 802.3, 802.3AB, 802.3U, 802.1p, 802.1Q, 802.3bz, 802.3ae

Powering and Alarms

- 90V to 264V AC input supporting PoE
- Optional 2-pin connector for use with DC Input voltage: 12 V DC (nominal), 10.5 V DC (min), 14.4 V DC (max) (PoE PSE not enabled when using 12V input)

Environmental

- Operating temperature: -40° to 65°C (-40° to 149°F)
- Operating/storage relative humidity: 5 to 95% non-condensing





ORDERING INFORMATION

Order Code	Description
System	
100-06011	GPR4001XH Outdoor ONT, 10GE, 3 GE, 802.3bt PoE PSE 120W

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.

2777 Orchard Parkway, San Jose, CA 95134 | T: 1 707 766 3000 | F: 1 707 283 3100 | www.calix.com | 250-00450 Rev 14 | 8/24