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Calix 803G
Lifeline and
Battery
Backup

RTC NETWORKS Calix 803G Lifeline and Battery Backup User Guide

Contents

RTC NETWORKS Calix 803G Lifeline and Battery Backup

Product Information

Specifications:

- **Service:** Telephone and Broadband Internet
- **Lifeline Program Benefits:**
    - $5.25 per month for telephone service
    - $9.25 per month towards internet service
    - Up to $34.25 for qualifying households on Tribal lands
- **Power Backup:** Battery backup provided for home voice services

Product Usage Instructions

Signing Up for Lifeline Programs:
If you are eligible and interested in the Lifeline Programs, visit **www.myRTCNetworks.com/lifeline** for more information or call 701.862.3115.

Battery Backup Information:
If you need information about your battery power backup or wish to purchase a 24-hour battery backup, contact RTC Networks at **701-862-3115** or email **info@myrtcnetworks.com**.

FAQ

- **Q: How can I determine if I am eligible for the Lifeline Program?**

    A: To check your eligibility and find out more about the Lifeline Programs, visit

    www.myRTCNetworks.com/lifeline or contact us at 701.862.3115.

- **Q: What services are covered under the Lifeline Program?**

    A: The Lifeline Program offers benefits for telephone and broadband internet services. It provides financial

    assistance towards these services for eligible individuals.

- **Q: How do I know if I need a battery backup for my home voice services?**

  A: RTC Networks provides a battery backup for home voice services to ensure continued usage during power outages. If you have questions about the battery backup or need a replacement, please contact us.

DESCRIPTION

The Calix 803G GigaPoint® is an indoor, 2.5 Gbps GPON small form factor service delivery terminal that provides broadband connectivity to the subscriber. This highperformance terminal features one Gigabit Ethernet (GE) interface delivering IPTV video and data services, and voice line supporting carrier-grade VoIP and network-based TDM voice circuits. Connecting a Calix GigaCenter (844E) to the LAN port of the 803G 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 803G GigaPoint is designed for the industry-leading Calix E-Series fiber access GPON optical line terminals (OLTs).
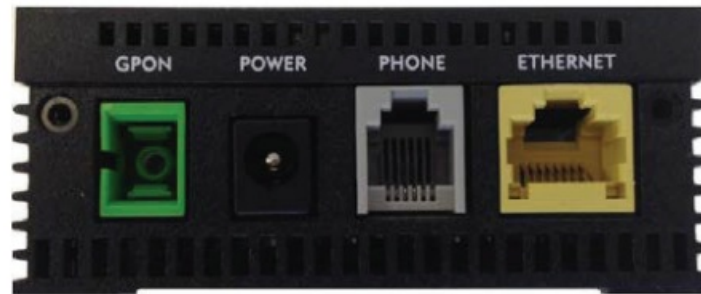
EASY TO INSTALL, ACTIVATE, AND MAINTAIN

With the 803G GigaPoint, Calix has redefined how to install and activate residential services at a subscriber's premises. Using the Calix Smart Activate feature and a phone or laptop, 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, including management via CMS and Calix Support Cloud (CSC) enabling the service provider to configure, activate and upgrade the GigaPoint using in-band management. Extensive troubleshooting capabilities, remote software downloads, and easy-to-use service activation ensures that services are delivered and maintained without needless truck rolls and hardware upgrades. Employing the 803G GigaPoint allows service providers to reduce their operational expenses while effectively delivering the Gigabit experience to their subscribers.

KEY ATTRIBUTES

- Standards-based Full Service Access Network (FSAN), ITU-T GPON compliant
- One Gigabit Ethernet (GE) interface:
  - Symmetrical 1 Gbps bandwidth for residential IPTV and data services
  - Multi-rate 10/100/1000 BASE-T Ethernet, auto-negotiating
- One voice line
  - FXS ports, ANSI or ETSI
  - 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, IGMPv3:
  - IGMP Snooping and Proxy
  - IGMP Fast Leaves

- Complete OAM&P support via Calix Management System (CMS)
- Calix Support Cloud (CSC)
- Indoor mounting options:
  - Wall Mount or Structured Wiring Enclosure (SWE) mount with fiber management
  - Desktop mount: horizontal or vertical
- AC to 12 V DC power adapter available for non-lifeline services
- Optional uniterruptible power supply (UPS) for voice lifeline service power

SPECIFICATIONS

DIMENSIONS

- Width: 3.0 in (7.6 cm)
- Height: 4.0 in (10.2 cm)
- Depth: 1.25 in (3.2 cm)
- Weight: 4 oz (0.1 kg)

PON CHARACTERISTICS

- Max. split: 64 GPON
- Max. reach: 58 km (36 miles) with C+/FEC
- Maximum Optical Distribution
- Network (ODN) Attenuation:
  - GPON Class B+, 28 dB
  - GPON Class C+, 32 dB
- 1490 ± 10 nm optical receiver:
- -27.0 to -8.0 dBm (Class B+); -30.0 to -8.0 dBm (Class C+ with FEC)
- 1310 ± 20 nm optical transmitter: 0.5 to 5.0 dBm

INTERFACES

- Data/IPTV: One 10/100/1000 BASE-T
- Ethernet port, RJ-45 connector
- Telephony: One RJ-11 connector
- PON: Single 9/125 µm (single mode) fiber, SC/APC connector, minimum 50 dB return loss
- Power: 2-pin connector

TELEPHONY

- General: SIP, H.248, MGCP or TDM
  Gateway (GR-303, GR-57, TR-08 Mode I, TR-08 Mode II)
- Number of lines: 1
- RENs: 5 maximum
- Drop length: Maximum 500 feet (152.4 m)
- DS0 Output: 23.5 mA
- Ring Voltage: 56–84 V AC

DATA

- Drop length: 328 feet (100 m) maximum, using CAT5 cable
- Auto MDI/MDIX crossover for 1000BASE-TX, 100BASE-TX, and 10BASE-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

ENVIRONMENTAL

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

CERTIFICATION AND COMPLIANCE

- Emissions:
    - FCC Part 15 Class B
    - IC ICES-003 Class B
    - CISPR-22
- Safety: UL 60950 and UL 1697 approved
- IEEE: 802.3, 802.3AB, 802.3U, 802.11p, 802.11Q

POWERING AND ALARMS

- 2-pin connector
- Input voltage: 12 V DC (nominal), 10 V DC (min), 15 V DC (max)
- External Power Adapter: 12 V DC, 1.5 A
- Typical Power: 3.5 W, Peak Power: 7 W
- Battery backup time rated capacity: 8 hours based on Telcordia GR-909 calculation methods using recommended UPS. Contact Calix for recommended UPS.

ORDERING INFORMATION

- **Calix 803G GigaPoint**
    - 100-04255………………….803G GigaPoint, 1 GE, 1 POTS

- **Calix 803G Power Adapters**
    - 100-04323…………………….Power Adapter CPA3 12V 1.5Amp – AM Type A
    - 100-04324…………………….Power Adapter CPA3 12V 1.5Amp – EU Type C
    - 100-04037…………………….Power Adapter CPA5 12V 2.5Amp – UK Type G
    - 100-04038…………………….Power Adapter CPA5 12V 2.5Amp – AU/NZ Type I
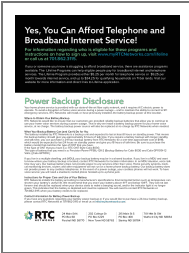   - 100-04039…………………….Power Adapter CPA5 12V 2.5Amp – AR Type I
- **Calix 803G Packages with Power Adapter**
    - 000-00951…………………….803G GigaPoint, 1 POTS, 1 GE – AM Type A Power Adapter
    - 000-00952…………………….803G GigaPoint, 1 POTS, 1 GE – EU Type C Power Adapter
    - 000-00953…………………….803G GigaPoint, 1 POTS, 1 GE – UK Type G Power Adapter
    - 000-00954…………………….803G GigaPoint, 1 POTS, 1 GE – AU/NZ Type I Power Adapter
    - 000-00955…………………….803G GigaPoint, 1 POTS, 1 GE – AR Type I Power Adapter

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.

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Documents / Resources

[RTC NETWORKS Calix 803G Lifeline and Battery Backup](#) [pdf] User Guide
Calix 803G, Calix GP1101X-12, Calix 803G Lifeline and Battery Backup, Calix 803G, Lifeline and Battery Backup, Battery Backup, Backup

References

- **User Manual**