

C844G GigaCenter | CenturyLink



DESCRIPTION

The CenturyLink C844G GigaCenter is a next generation residential service delivery platform that extends the access network into the home as a strategic location for control of the gigabit experience. Supporting broadband connectivity within the home and managing CenturyLink voice, data and video services, this intelligent, high-performance service platform integrates a 2.5 GPON optical interface with switching and routing functions managing premises network traffic at speeds up to 1 Gbps. The C844G GigaCenter service interfaces include: carrier class wireless networking with 802.11ac Wi-Fi and four Gigabit Ethernet (GE) ports for Prism IPTV video and data services, two integrated voice lines supporting carrier grade VoIP and network-based TDM voice circuits, and a USB port for home networking services

GIGABIT SUBSCRIBER EXPERIENCE: The CenturyLink C844G GigaCenter is an integrated access and gateway solution that delivers advanced network management and software features to unleash the gigabit experience throughout a subscriber's home. The GigaCenter service delivery platform terminates a GPON fiber optic link at a subscriber's premises and provides carrier class Wi-Fi and Gigabit Ethernet interfaces for customer multi-media devices. The C844G GigaCenter enables CenturyLink subscribers to receive gigabit broadband data, Prism IP video, and VoIP or TDM based voice on a single fiber. Using the latest 802.11ac 5GHz technology incorporating 4x4 multi-user multiple-input and multiple-output (MU-MIMO) and beamforming, the C844G GigaCenter allows CenturyLink to extend the access network inside the home and establish a strategic location for the delivery and control of broadband services. A USB port is available for home networking with other Ethernet appliances.

Calix engineered the CenturyLink C844G GigaCenter for optimal whole-home coverage with simultaneous dual-band 2.4GHz and 5GHz operation and dynamic beamforming at 5GHz. For maximum performance, the GigaCenter supports high-power 2x2 MIMO spatial diversity at 2.4GHz and 4x4 MU-MIMO at 5GHz. The CenturyLink GigaCenter solution delivers Prism HD video and data throughout a subscriber's home with control and management of an increasingly video-rich and mobile broadband environment.

EASY TO INSTALL, ACTIVATE, AND MAINTAIN: With the CenturyLink C844G GigaCenter, 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 CenturyLink field technician can install and apply the subscriber's service profile without special equipment or assistance from the central office. Calix also provides the innovative Compass software portfolio, including Consumer Connect, which allows CenturyLink to configure, activate and upgrade the GigaCenter quickly from a remote location using in-band management or TR-069. Extensive troubleshooting capabilities, remote software downloads, and easy-to-use service activation ensure that services are delivered and maintained without needless truck rolls and hardware upgrades. Employing the C844G GigaCenter allows CenturyLink to reduce their operational expenses while effectively delivering the gigabit experience to their subscribers.

TRUE CARRIER GRADE VOICE SOLUTION: The CenturyLink C844G GigaCenter delivers a truly agile and responsive service platform with lifeline voice in the event of local AC power loss. A carrier grade 120-240 VAC, 50-60 Hz AC to 12 VDC Uninterruptible Power Supply (UPS) provides battery backup of voice services compliant to Telcordia GR-909. The C844G GigaCenter can monitor battery status, battery charge and battery life, and report results through the Calix Management System (CMS).

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KEY ATTRIBUTES

- Standards-based Full Service Access Network (FSAN), ITU-T GPON compliant
- CenturyLink Residential Gateway:
 - Layer 2 bridge and Layer 3 routing for High Speed Internet (HSI) data and IPTV video services
 - DHCP server options
 - DHCP (IPoE) and PPPoE network connections
 - Network Access Translation (NAT), public to private IP addressing
 - Configurable IP address schemes, subnets, static-IP addresses
 - DNS server
 - Bridge port assignment and data traffic mappings
 - Port forwarding
 - Firewall and security
 - Application and website filtering
 - Selectable forwarding and blocking policies
 - DMZ hosting
 - Parental controls, time of day usage
 - Denial of service
 - MAC filtering
 - Time/Zone support
 - Universal Plug-and-Play (UPnP)
- Wireless:
 - 2.4GHz and 5GHz, simultaneous dual-band
 - 5GHz 802.11ac certified, 802.11a/g/n compatible
 - 2.4GHz 802.11n certified, 802.11b/g compatible
 - WPA/WPA2
 - WPS push-button
 - WPS PIN
 - WEP 64/128 bit encryption
 - Two SSIDs per band with factory default SSIDs
 - MAC filtering
- Two voice lines:
 - CenturyLink DHP SIP
- Four Gigabit Ethernet (GE) interfaces:
 - Symmetrical 1 Gbps bandwidth for residential IPTV and data services
 - Multi-rate 10/100/1000 BaseT Ethernet, auto-negotiating
- USB port:
 - USB 2.0 - Type A configured as a host interface
- 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 OAM&P support via Calix Management System (CMS)
- Gateway Management:
 - TR-069
 - CenturyLink GUI, access provisionable
 - Remote WAN side GUI access
 - Default username/password
 - Set-up persistence, factory reboot support
- Indoor mounting:
 - Wall and Structured Wiring Enclosure (SWE) mount with fiber management
 - Desktop mounting stand
- Optional voice lifeline service power source with in-home battery backup and alarm monitoring
- AC to 12 VDC power adapter available for non-lifeline services.

SPECIFICATIONS

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DIMENSIONS

Height: 10.6 in (26.9 cm)
Width: 7.9 in (20.0 cm)
Depth: 1.8 in (4.6 cm)
Weight: 28 oz. (.8 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
1310 ± 20 nm optical transmitter:
0.5 to 5.0 dBm

INTERFACES

Wireless: 2.4GHz 2x2 and 5Hz 4x4 internal antennas
Telephony: Two RJ-11 connectors
Data/IPTV: Four 10/100/1000 BaseT Ethernet ports, RJ-45 connectors
USB: USB 2.0 Type A
PON: Single 9/125 μm (single mode) fiber, SC/APC connector, minimum 50 dB return loss
Power: 8-pin connector

TELEPHONY

General: CenturyLink DHP SIP
Number of lines: 2
RENs per line: 5 maximum
RENs per unit: 10 maximum
Drop length: Maximum 500 feet (152.4 m)
DS0 Output: 23.5 mA

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: 802.11nQ VLAN; 802.11np voice, video, data and management priorities; Q-in-Q tagging; Rate limiting

WIRELESS

2.4GHz 802.11 b/g/n
2x2 MIMO, high-power
5GHz 802.11 a/g/n/ac
4x4 MU-MIMO, implicit/explicit dynamic beamforming
2.4GHz and 5GHz simultaneous
2 SSIDs per band

Auto channel selecting and interference detection

WPS, WPS push button, WPS PIN

Wireless Security: Wi-Fi protected access (WPA/WPA2) WEP, MAC address filtering

Wi-Fi multimedia (WMM)

REMOTE MANAGEMENT

OAM&P via CMS
TR-069 remote management
TR-064 CPE management
TR-098 Internet Gateway Device Data Model
Interoperable with Motive

ENVIRONMENTAL

Operating temperature: Indoor ambient temperature, 0° to 40°C
Operating/storage relative humidity: 8 to 95 % non-condensing
Altitude: -200 to 10,000 feet (-61 to 3,048 m) above sea level

CERTIFICATION AND COMPLIANCE

Emissions:

FCC Part 15 Class B

Safety:

UL 60950 and UL 1697 approved

IEEE: 802.3, 802.3AB, 802.3U, 802.11np, 802.11nQ

Wi-Fi Alliance Certified

802.11ac and 802.11n



USB-IF Compliance
USB 2.0



POWERING AND ALARMS

8-pin connector with 7-conductor power and alarm cable

Input voltage: 12 VDC (nominal), 10 VDC (min.), 15 VDC (max)

External Power Adapter: 12 VDC, 2.5 A

Residential battery backup source: UPS mounted at subscriber's residence

Battery backup time rated capacity: 8 hours based on Telcordia GR-909 calculation methods using recommended UPS.