

844E GigaCenter[®] (ANSI)



The Calix 844E GigaCenter[®] is a next generation residential premises service delivery platform that extends the access network into the home and acts as a strategic location for control of the gigabit experience. Supporting broadband connectivity within the home and distributing subscriber voice, data and video services, this intelligent, high-performance service platform integrates an Ethernet interface with switching and routing functions that support speeds up to 1 Gbps symmetrically. The GigaCenter service interfaces include: carrier class wireless networking with 802.11ac Wi-Fi and four Gigabit Ethernet (GE) ports for IPTV video and data services, two integrated voice lines supporting carrier grade VoIP and a USB port.

GIGABIT SUBSCRIBER EXPERIENCE

The 844E GigaCenter is a unique gateway solution that delivers advanced software features to unleash the gigabit experience throughout a subscriber's home. The GigaCenter service delivery platform uses an Ethernet link at the subscriber's premises to provide carrier-class Wi-Fi and Gigabit Ethernet interfaces for customer multi-media devices. The 844E GigaCenter enables residential subscribers to receive gigabit broadband data, IP video, and VoIP. Using the latest 802.11ac 5 GHz technology incorporating 4x4 multi-user multiple-input and multiple-output (MU-MIMO) and beamforming, the 844E GigaCenter allows service providers to extend the access network inside the home and establish a strategic location for the delivery and control of broadband services.

Calix engineered the 844E GigaCenter for optimal whole-home coverage with simultaneous dual-band 2.4 GHz and 5 GHz operation and dynamic beamforming at 5 GHz. For maximum performance, the GigaCenter supports high-power 2x2 MIMO spatial diversity at 2.4 GHz and 4x4 MU-MIMO at 5 GHz. The 844E GigaCenter supports the entire 5 GHz band including Dynamic Frequency Selection (DFS) channels and can be provisioned to support 80 MHz channel bandwidth at 5 GHz. The GigaCenter solution easily delivers HD and UHD video and data throughout a subscriber's home in an increasingly video-rich and mobile broadband environment.

EASY TO INSTALL, ACTIVATE, AND MAINTAIN

With the 844E 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 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 Calix Support Cloud (CSC), which allows the service provider 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 features ensure that services are delivered and maintained without needless truck rolls and hardware upgrades. Employing GigaCenters allows service providers to reduce their operational expenses while effectively delivering the gigabit experience to their subscribers.

KEY ATTRIBUTES

Home 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

- 2.4 GHz and 5 GHz, simultaneous dual-band
- 5 GHz 802.11ac certified, 802.11a/n compatible
- 2.4 GHz 802.11n certified, 802.11b/g compatible
- WPA/WPA2
- WPS push-button
- WEP 64/128 bit encryption
- 8 SSIDs per band (2 SSID subscriber default)
- MAC filtering

Two voice lines

- FXS ports, ANSI

Four Gigabit Ethernet (GE) interfaces

- Symmetrical 1 Gbps bandwidth for residential IPTV and data services
- Multi-rate 10/100/1000 BASE-T 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
- DiffServ
- Pre-defined QoS on service type

IPTV, IGMPv2, future support of IGMPv3

- IGMP Snooping and Proxy
- IGMP Fast Leaves

Calix Support Cloud

Gateway Management

- TR-069
- Local Home Gateway 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

AC to 12 V DC power adapter available for non-lifeline services

SPECIFICATIONS

Dimensions

- Width: 7.9 in (20.0 cm)
- Height: 10.6 in (26.9 cm)
- Depth: 1.8 in (4.6 cm)
- Weight: 28 oz. (.8 kg)

WAN Interface

- Interface: One 10/100/1000 BASE-TX Ethernet Port, RJ-45 connector

Interfaces

- Wireless: 2.4 GHz 2x2 and 5 GHz 4x4 internal antennas
- Telephony: Two RJ-11 connectors Data/IPTV: Four 10/100/1000 BASE-T Ethernet ports, RJ-45 connectors
- USB: USB 2.0 Type A
- Power: 2-pin connector
- Power Switch: Push-button actuator

Telephony

- General: SIP VOIP
- 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: 802.11Q VLAN; 802.11p voice, video, data and management priorities; Q-in-Q tagging

Wireless

- 2.4 GHz 802.11 b/g/n 2x2 MIMO, high-power
- 5 GHz 802.11 a/n/ac 4x4 MU-MIMO, implicit/explicit dynamic beamforming
- 2.4 GHz and 5 GHz simultaneous
- 8 SSIDs per band (2 SSID subscriber default)
- Auto channel selecting and interference detection
- WPS, WPS push button
- Wireless Security: Wi-Fi protected access (WPA/WPA2) WEP, MAC address filtering
- Wi-Fi multimedia (WMM)

Remote Management

- TR-069 remote management
- TR-064 CPE management
- TR-098 Internet Gateway
- Device Data Model

Environmental

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

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
- Wi-Fi Alliance Certified 802.11ac and 802.11n



- USB-IF Compliance USB 2.0



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, 2.5 A
- Power Switch

ORDERING INFORMATION

Calix 844E GigaCenter

100-04015.....844E-1 GigaCenter, 2 POTS, 4 GE, Dual Wi-Fi, 1 USB - Power Adapter Interface

Calix 844E Power Adapter

100-04036.....Power Adapter 844G/854G 12V 2.5Amp - AM Type A

Sales Package - Calix 844E GigaCenter with Power Adapter

000-00866.....844E-1 GigaCenter -AM Type A Power Adapter

000-00867.....844E-1 GigaCenter -EU Type C 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.