Avertissement:

(i) les dispositifs fonctionnant dans la bande de 5150 à 5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
(ii) pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5250 à 5350 MHz et de 5470 à 5725 MHz doit être conforme à la limite de la p.i.r.e;
(iii) pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;
Les opérations dans la bande de 5.25-5.35GHz sont limités à un usage intérieur seulement.

Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.

Europe – EU Declaration of Conformity

Hereby, Calix Inc. declares that the Radio Equipment Model 844FB is in compliance with Directive 2014 / 53 / EU. A full text Declaration of Conformity is available on the Calix Documentation portal.

User Manual Information Agreement

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

USOC Jack: RJ-14
REN: 0.1

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (for example, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact:

Name: Calix, Inc.
Address: 1035 N. McDowell Blvd. Petaluma, CA 94954, USA
Telephone: 707-766-3155
Website: https://www.calix.com

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightening strikes and other electrical surges.

844FB GigaCenter Quick Start Guide

This document provides general installation practices for the GigaCenter model 844FB. The 844FB's primary features include:

- Broadband Forum G.fast G.9700/1 and G.997.2 extension standard compliant
- Supports bonding in compliance with ITU G998.2, G999.1, and G994.1
- Four Gigabit Ethernet (GE) interfaces
- Carrier grade SIP, H.248, MGCP VoIP
- Aggregate bandwidth up to 2 Gbps
- Supports multiple data service profiles (symmetric and asymmetric bandwidth)
- IPTV, IGMPv2, IGMPv3
- Traffic Management and Quality of Service (QoS)
- OAM&P support via Calix Consumer Connect Plus
- Indoor wall, Structured Wiring Enclosure (SWE), or tabletop mount
- Optional UPS with in-home battery back-up

This document also provides guidance for site preparation, installation, and basic troubleshooting.

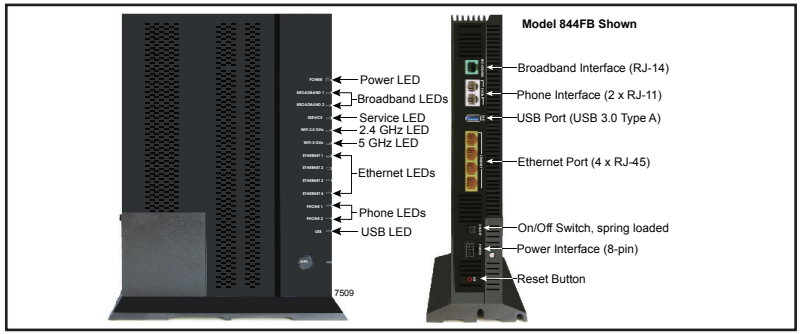
Scan the QR code at left to access the installation instructions for this product. All product documentation is available online from the Calix Resource Center (support.calix.com).

Package Contents

- GigaCenter Model 844FB
- Power Adapter (Optional - may ship separately or with UPS*)
- Wall Mount Bracket
- Tabletop Mounting Stand
- GigaCenter 844FB Quick Start Guide (this document)

*** Note:** For instructions on installing the optional UPS, refer to the 800 GigaFamily Hardware Installation Guide.

A Quick Look



Installation Variables

Before installing the GigaCenter, consider the following:

- Will the unit will be mounted on the wall or on a tabletop?
- Four Ethernet (RJ-45) ports, two phone ports, and (1) G.fast (RJ-14) port are connected on the back of the unit which must be planned for from a cable routing perspective.
- A power supply and/or signal cable/UPS power cord combination may be needed.
- Determine what type of building material is used in the home. Make sure you have the appropriate drills, drill bits and fasteners for mounting the GigaCenter, or routing subscriber services and power cables as they pass through walls and the like.

Make sure you account for all variables prior to determining the unit's final location.

WEEE Directive

Requirements according to WEEE directive (2002/96/EC)

Disposal of old electrical and electronic equipment (Applicable in the European countries with separate collection systems).

This symbol on the product indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. Calix offers take-back and recycling services for products in many locations around the world.

Customers are advised to contact their local Calix representative for further information.

License Information

Open Source Software Utilization Notice

The 844FB GigaCenter uses Open Source Software Programs. Such software programs are made available subject to certain third party terms and conditions.

The fact that you are about to begin using or have purchased this product requires that you be informed of the use of these software packages and or libraries and in some cases, the third party terms and conditions applicable to such software. This information can be found on the manufacturer's support portal. Refer to the appropriate software release notes for additional information on Open Source Software Programs used by this product.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
Country Code selection feature to be disabled for products marketed to the US/CANADA
Operation of this device is restricted to indoor use only.

Industry Canada statement:
This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
1) l'appareil ne doit pas produire de brouillage;
2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Type	Connector	2.4G Gain	5G B1 Gain	5G B2 Gain	5G B3 Gain	5G B4 Gain
Dipole	IPEX	0 dBi	-0.8 dBi	-0.8 dBi	-0.5 dBi	-1.2 dBi

Caution:
(i) the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
(ii) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
(iii) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specifiedforpoint-to-pointandnon-point-to-pointoperationasappropriate;and operations in the 5.25-5.35 GHz band are restricted to indoor usage only.

Children

Do not allow children to play with the GigaCenter. It contains small parts that could become detached and create a choking hazard.

Regulatory Information

Declaration of Conformity

Hereby, the manufacturer declares that this product (GigaCenter 844FB) is in conformity with the requirements and other relevant provisions of the following European directives for the CE mark:

- 1999/5/EC: R&TTE Directive
- 2006/95/EC: Low Voltage Directive
- 2004/108/EC: Electromagnetic Compatibility Directive (EMC)

Hereby, the manufacturer declares that this product (GigaCenter 844FB) is in conformity with the following standards of the CB Test Certificates:

- IEC 60950-1

The manufacturer declares that this product (GigaCenter 844FB) is in conformity with the requirements and other relevant provisions of the following Canadian standards:

- CAN ICES-3 (B)/NMB-3(B)

CAUTION! Changes or modifications to this product not expressly approved by the party responsible for compliance could void your authority to operate the equipment and invalidate approvals.

Environmental Conditions

Maximum environmental values during use:

- Temperature: 0° C to +40° C (32° to 104° F)
- Humidity: 10% to 95% RH, non-condensing

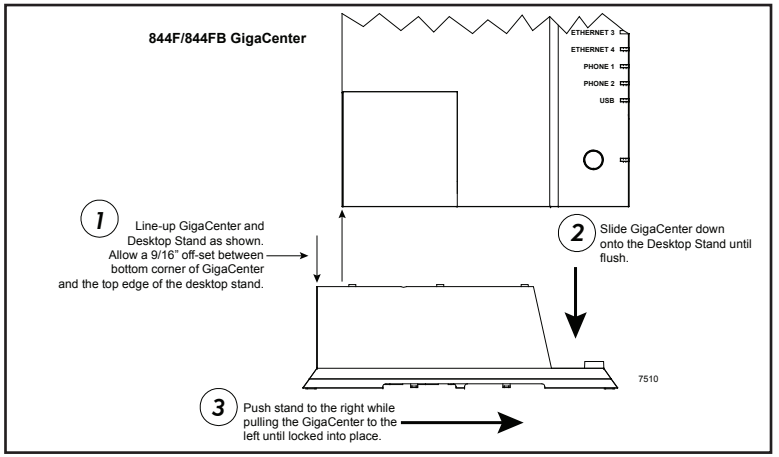
RoHS Compliance

This 844FB GigaCenter meets the requirements detailed in the European RoHS Directive (2002/95/EC).

Tabletop Mounting

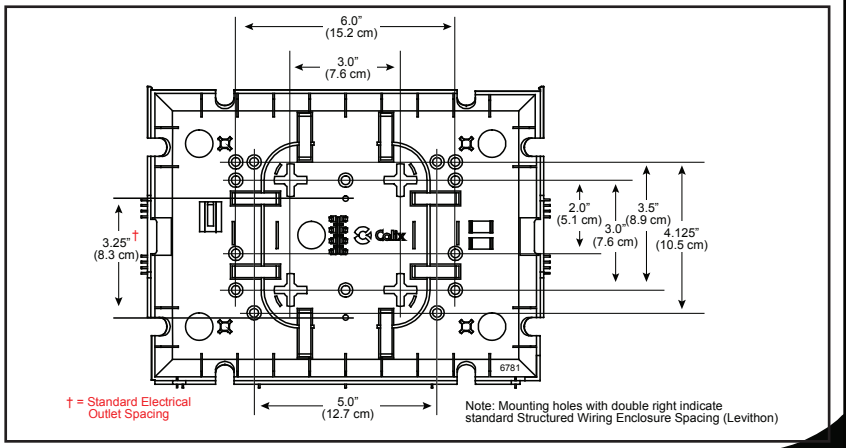
The 844FB GigaCenter can be mounted on a tabletop in a “tower” configuration using the tabletop stand shipped with the product.

Assemble the tabletop stand and the GigaCenter as shown in the following diagram.



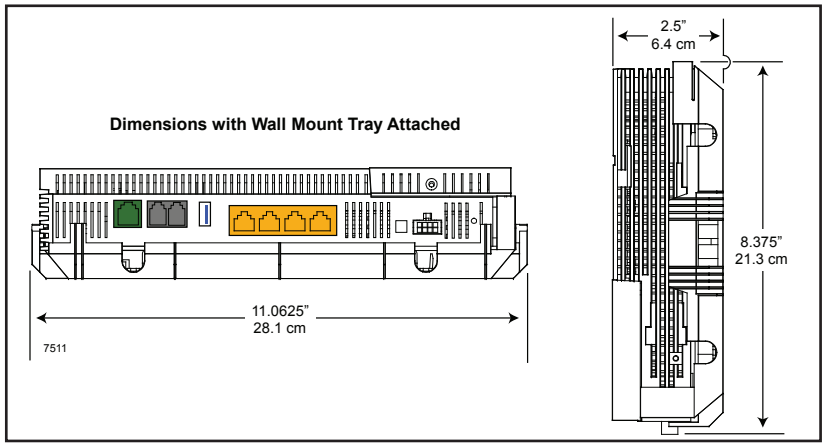
Wall Mounting

In order to facilitate wall mounting of the GigaCenter, a Wall Mount Bracket is required (included with the GigaCenter).



Wall Mounting Dimensions

The GigaCenter 844FB can be mounted to a wall or a Structured Wiring Enclosure.



Connecting the 844FB to the Network

1. Remove the GigaCenter from its packaging and inventory all parts.
2. Plug in the power adapter to an available wall socket and attach the other end to the GigaCenter's power port.
3. Connect an RJ-14 G.fast cable from the input source device (such as a Calix E3-16F) to the green broadband interface (RJ-14) connector on the back of the GigaCenter 844FB.
4. Push the On/Off switch to On and allow the GigaCenter to boot up.
5. Wait about 2-3 minutes for the GigaCenter to complete the power-up process.

Potentially Explosive Atmosphere

Do not use the GigaCenter in an area where a potentially explosive atmosphere exists.

Intended Use

This product is classified as telecommunication equipment not intended for direct purchase by the public.

This product is designed and approved for use in an indoor location only.

CAUTION! Use of any controls, adjustments, or procedures other than those specified herein may result in hazardous radiation exposure.

Power Supply

- Ensure that a suitable AC power outlet is located near the GigaCenter and is easily accessible.
- Connect the power supply cord only to the AC power outlet that meets the specifications marked next to the appliance AC power inlet on the GigaCenter.
- Never alter the AC power cord. If necessary have the correct outlet installed by a qualified electrician or call your service provider for assistance.
- To reduce risk of damage to the electric cord, remove it from the outlet by holding onto the AC power adapter rather than the cord. Make sure the cord is positioned so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.

WARNING! Do not use any other power adapter except the one that accompanies this unit or a power supply identified for use with this product. Use of another adapter could result in damage to the unit. To prevent electrical shock, please do not open the cover. The following power adapter is qualified to be used with this GigaCenter.

The 844FB must be powered by Mass Power NBS65A120410M2 or equivalent UL Listed LPS Power source rated at : input: 90-264 VAC, 47/63 Hz, 1.5 A, Output: 12 VDC, 4.1 A, TMA 40° C.

Q: What do I do if I cannot log on to the GigaCenter gateway?

A: Contact your service provider.

Q: Who do I contact for service and support?

A: Contact your service provider.

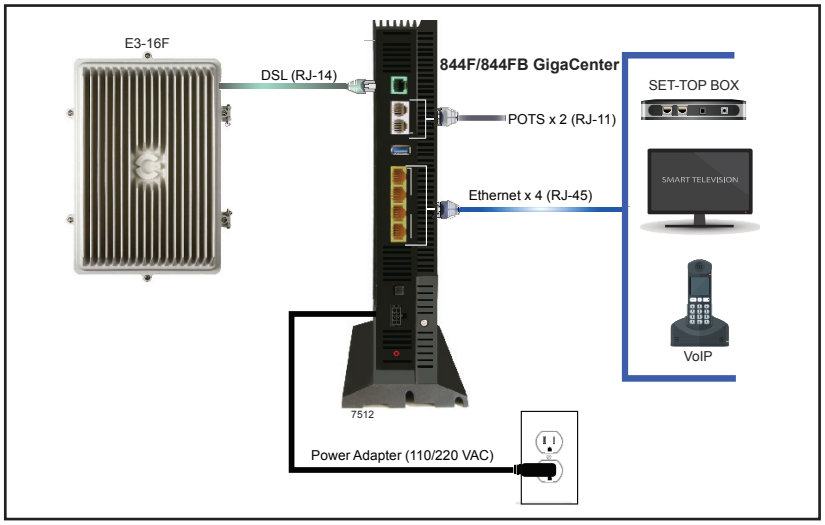
Safety Information

The 844FB GigaCenter is a highly sophisticated electronic device. To get the most out of it, be sure to read the following text about product care, safety and efficient use.

- Treat the product with care, keep it in a clean and dust free environment.
- **Do not** expose the GigaCenter to liquid, moisture or excessive humidity.
- **Do not** expose the GigaCenter to extreme high or low temperatures; refer to the topic *Environmental Conditions* for more detailed information.
- **Do not** expose the GigaCenter to open flames or lit tobacco products.
- **Do not** drop, throw, or try to bend the product, since rough treatment could damage it.

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Avoid using the telephone (or other cordless devices) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire as they may explode. Check with local codes for allowable disposal instructions.
- **Do not** use this product near water, for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
- **Do not** attempt to disassemble the GigaCenter. A broken warranty seal voids the warranty. The product does not contain consumer-serviceable components. Only Certified Service Centers should perform service.
- **Do not** use any accessories other than those approved by the manufacturer or your service provider. Use of non-original or non-approved accessories may result in loss of performance, damage to the product, fire, electric shock or injury, and may violate regulations. The warranty does not cover product failures that have been caused by use of non-original or non-approved accessories.



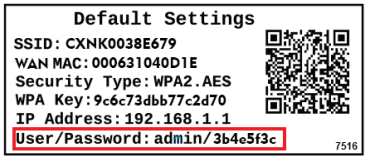
Connecting Outside Services

Subscriber voice, IP video and data services are attached to the rear of the GigaCenter.

1. Locate the telephone, video, and data cables coming from the home.
2. Connect the incoming telephone lines to the RJ-11 connectors on the rear of the GigaCenter.
3. Connect CAT5 or better cabling to the LAN Ethernet (RJ-45) ports for direct-attached devices.
4. Secure all subscriber service wiring as appropriate.

Default Device Settings

Inserted inside the shipping carton of each GigaCenter, the inventory label (x2) provides necessary product information. This information may be attached to a work order or applied to the exterior of the device for future reference.



- Serial Number of the 844FB GigaCenter
- Wide Area Network (WAN) MAC address
- Default Wi-Fi security type
- Wi-Fi security key (WPA Key)
- Default IP address of the home gateway router (needed at initial turn-up)
- Default login credentials (User Name/Password)

Home Gateway Settings

1. To turn up home gateway services on the GigaCenter, complete the following tasks:
2. Connect your PC to any LAN Ethernet port on the GigaCenter using a standard Ethernet cable.
3. Open a browser and enter the IP address of the GigaCenters Embedded Web Interface (EWI): http://192.168.1.1.
4. Enter the credentials provided on the label shipped inside the GigaCenter box.

5. Navigate to the Quick Start Menu and set-up the following:

   a. Choose how to connect to the Internet
   b. Configure your 2.4 GHz or 5 GHz wireless network
   c. Set the local time zone (may be automatically set by network)

Frequently Asked Questions

How do I reset the device without having to unplug the unit?

A: If the RESET button is depressed for less than 5 seconds, it resets the unit using the current configuration settings.

Q: How do I reset the device back to factory settings?

A: Pressing the RESET button on the back of the unit for at least 5 seconds, or access the “Restore Defaults” reset radio button located in the “Utilities” section of the Embedded Web Interface.

Q: How does the WPS button work?

A: Pressing the WPS button broadcasts the GigaCenters credentials (network password) to other WPS capable devices for a period of 2 minutes, allowing these devices to gain access to the wireless network.

Q: Is the Wireless radio on by Default?

A: Yes.

Q: Is Wireless Security on by Default?

A: Yes, unit is set with WPA2 Key Wi-Fi security type and login/password credentials that are printed on the inventory label and the product label affixed to the device.

Q: What if the User Name or login keys are forgotten?

A: Try setting up the wired connection and configuring the wireless encryption again.

- Press the reset button of the wireless router for at least five seconds.
- Device reverts to factory default settings
- Custom configuration options (such as SSID names) are reset as well.

Q: My Wi-Fi signal strength is lower than I expected?

A: A wireless signal degrades with distance and obstructions. Common signal impairments include walls, ceilings, metal, concrete, cinder blocks, fluorescent lights, microwaves, furniture, etc. While the GigaCenter has been optimized to provide wireless coverage for most applications, there may be dependencies based on the location where the device is installed. Please contact your service provider for troubleshooting assistance.

Q: What mounting options are available for installing the GigaCenter?

A: The GigaCenter should be installed using the tabletop stand or wall mount bracket to ensure best Wi-Fi performance and proper fiber optic cable management. The GigaCenter can be installed in a flat orientation on a desktop independent of the tabletop stand. Please ensure that the fiber optic cable can be properly routed to the device without excessive bends or pinching of the cable.