Adtran

Quick Start Guide

834-v6 Service Delivery Gateway

Wi-Fi 6 Gigabit Router

May 2025
6SDG834V6-13B
P/N: 17600023F1, 17600023F2, 17600023F3, 17600023F4

Overview

WARNING!

Read all warnings, cautions, notes and installation instructions before installing or servicing this equipment.

The 834-v6 is a carrier-class, dual-band, WiFi 6 Gigabit Router designed to deliver top-end WiFi 6 performance, multi-gigabit wired and wireless throughput, and advanced service delivery capabilities.

Features

The features of the 834-v6 include the following:

- 1G WAN interface (RJ-45)
- 4x 1G LAN interface (RJ-45)
- Telephone interface (RJ-14)

This quick start describes how to install and connect to the device.

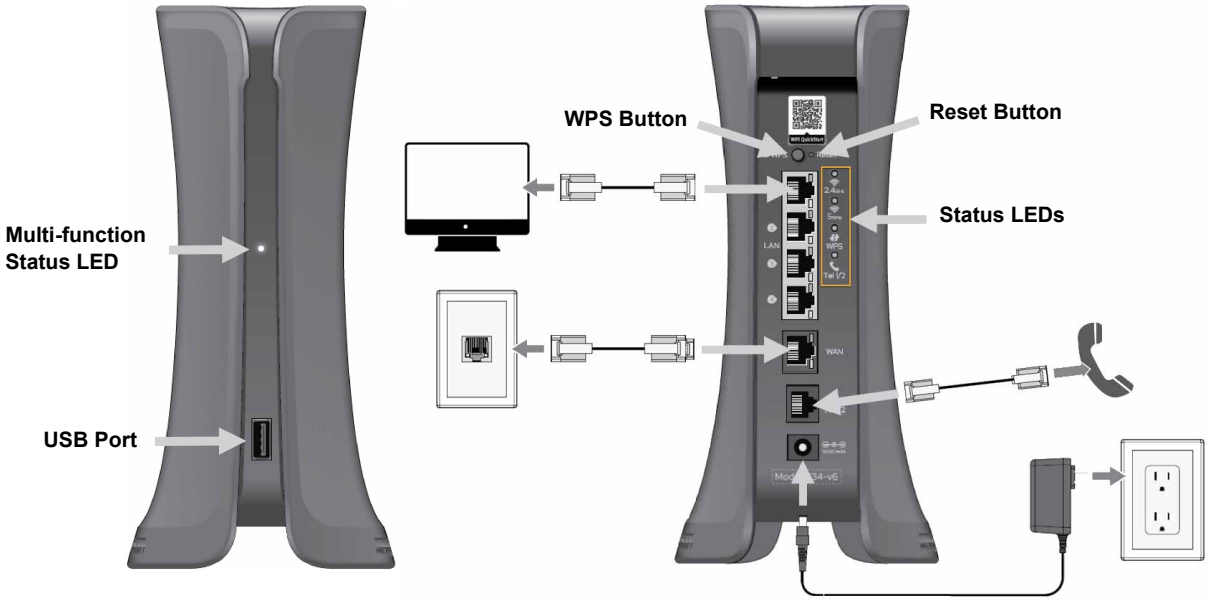

Figure 1. 834-v6 Gigabit Router

WARNING!

WARNING indicates a hazard which, if not avoided, could result in death, injury or serious property damage.

CAUTION!

CAUTION indicates a hazard which, if not avoided, could result in service interruption, damage to the equipment, or minor property damage.

NOTE

NOTES inform the user of additional, but important, information or features.

Installing the 834-v6 Gigabit Router

NOTE

Refer to the national, state and local electrical codes for the requirements for power, grounding, wiring, and installation methods.

Package Contents

- Adtran's 834-v6 Wi-Fi 6 Gigabit Router
- 12V DC power adapter
- Ethernet cable

CAUTION!

The product is intended for indoor use only. Ethernet and attached equipment are intended for use within the same building with equipotential bonding, and not intended to be placed in separate buildings or structures. Failure to deploy as described could result in permanent damage from lightning or other electrical events and voids the warranty. Furthermore, all connections from outside of the building must be disconnected prior to use.

Prior to Installation

Before installing the equipment, inspect the device. If damage has occurred during shipping, file a claim with the carrier, and then contact Adtran Customer Support. For more information, refer to the product warranty available online at https://adtran/wp_support_warranty.

Required Tools

No special tools are required for installing the 834-v6.

Mounting Options

There are two options to install the 834-v6: desktop and wall mount. Be sure to route and secure the cables in a manner that will prevent damage. These options are described below.

Desktop Installation

The 834-v6 can be placed on a desk or table. Table 1 shows the recommended minimum distance (in feet and meters) between the device and household appliances to reduce interference.

Table 1: Recommended Minimum Distance Between the SDG and Household Appliances

Household Appliance	Recommended Minimum Distance (in feet and meters)
Microwave ovens	30 feet / 9 meters
Baby monitor – analog	20 feet / 6 meters
Baby monitor – digital	40 feet / 12 meters
Cordless phone – analog	20 feet / 6 meters
Cordless phone – digital	30 feet / 9 meters
Bluetooth devices	20 feet / 6 meters
ZigBee	20 feet / 6 meters

WARNING!

Ensure that the 834-v6 does not come in contact with water or other liquids.

CAUTION!

Ensure that the 834-v6 is not located in direct sunlight or next to any thermal obstructions.

Wall Mount Installation

The 834-v6 can be mounted on a wall. Wall Mount Kit (17600193F1) can be ordered for mounting the 834-v6. Instructions are provided in the related Quick Start Guide (617600193F1-13).

Supplying Power to the device

1. Connect the small end of the power adapter to the **Power** port on the back panel of the SDG.
2. Plug other end of the power adapter into the wall outlet.
3. The SDG will begin powering up immediately as the 834-v6 has no on/off power switch.
4. Confirm that the power is connected properly. The **Multi-function Status** LED should be lit on the front of the gateway.

Subscriber Connections

The following subscriber connections are available on the back of the 834-v6:

- 4x 1G Ethernet port (RJ45 Connector) – **LAN** port
- 1x 1G Ethernet port (RJ45 Connector) - **WAN** port
- 1x Voice port for voice (2-wire connections **only**)
- 2x Telephone ports (RJ-14, 4 wire connector)

To connect the Ethernet interfaces, refer to Figure 1 and insert a Category 5E (or better) RJ45 cable into the LAN port (labeled **LAN**) and the WAN port (labeled **WAN**) until there is an audible “click”.

To connect one telephone device to the first telephone line, a two-wire RJ-11 cable (not included) can be connected to the port labeled **Tel 1/2** on the rear of the 834-v6. To connect telephone devices to each of the telephone lines on the 834-v6, an RJ-14 (4-wire) splitter is needed to provide two RJ-11 jacks. Additional pinout details for this jack are available in the User Manual for the 800 Series SDGs.

The **USB 3.0** host port is reserved for future use. This port currently provides +5 VDC for charging external USB devices.

Resetting the SDG

A reset button is available if the 834-v6 needs to be rebooted or restored to factory defaults. To reboot the 834-v6, press the **Reset** button on the back panel of the device for less than **5 seconds**. To reset the device to factory defaults, press the **Reset** button for **5 seconds** or more.

Activating WiFi Protected Setup™

WiFi Protected Setup™ (WPS) is a standard means for creating secure connections between the 834-v6 and various wireless client devices. This feature is designed to simplify the pairing process between the devices. Perform the following steps to activate WPS:

1. Press the WPS button on the back of the 834-v6 for less than 5 seconds for 5GHz or more than 5 seconds for 2.4GHz.
2. The WPS LED on the back of the unit is steady green when WPS is on and flashing green when WPS is passing traffic.
3. WPS search mode continues for 2 minutes. The next step must be completed before the 2 minutes have lapsed.
4. In the WiFi settings for the LAN device to be connected to the local network, locate and select the name of the wireless network (SSID) to which you want to connect. The 834-v6 should complete the connection without requiring the password to be manually entered.

Understanding the Status LEDs

A multifunction status LED on the front of the unit and status LED’s on the back panel allow you monitor the device status.

Multifunction Status LED

The multifunction status LED on the front of the unit indicates the device status.The meaning of the LED state is different depending on whether the unit is running SmartOS or PlumeOS. Table 2 defines the multifunction status LED state when running SmartOS.

Table 2: Multifunction Status LED for SmartOS

Color	LEDState	Event
Blue	Solid	Cold boot
Red	Pulsing	Reboot and System Upgrade (persists over uboot)
Green	Pulsing	Linux booting up
Green	Blue Pulsing	Quick start
White	Solid	Hub WAN up, Internet
Red, Green, Amber	Pulsing	Hub WAN down, no Internet
Blue	Red Pulsing	Satellite Set Up
White	Solid	Satellite up
White	Red Pulsing	Satellite up, fair signal
Red, Green, Amber	Pulsing	Satellite up, poor signal
White	Pulsing	Reverting

Table 3 defines the multifunction status LED state when running PlumeOS.

Table 3: Multifunction Status LED for PlumeOS

Color	LED State	Event
Blue	Solid	Power On
Green	Pulsing	Attempting to Connect
Green	Blinking (double)	During device naming (this device) and waiting for optimization to finish
N/A	Off	During device naming (other devices)
N/A	Off	Internet working
White	Pulsing after 3 minutes	Internet down (with power) or Internet still connected but lost cloud connection.
N/A	Off	Cloud planned outage
Green	Pulsing	Claimed device (by another account)
Red	Rapid Blinking	TFTP/recovery blink

Back Panel Status LEDs

There are four LEDs located on the back panel of the 834-v6 as shown in Figure 2.

Figure 2. Status LEDs

2.4GHz / 5GHz Status LEDs

The **2.4GHz** and **5GHz** status LEDs indicate the state of the wireless connections on the gateway.

LED	Color	State	Description
2.4GHz / 5GHz	Green	On	Wi-Fi radio is UP.
		Flashing	Wi-Fi radio is transferring data.
	None	Off	Wi-Fi connection is DOWN.

WPS Status LED

The **WPS** status LED indicates when WiFi Protected Setup (WPS)™ paring has been invoked.

LED	Color	State	Description
WPS	Blue	Flashing	Pairing mode - waiting for WPS client

Tel 1/2 Status LED

The **Tel 1/2** status LED indicate when either of the voice lines are active.

LED	Color	State	Description
Tel 1/2	Green	On	Telephone is off-hook. A call is in progress. At least one telephone line is active and on-hook.
		Flashing	Telephone is off-hook. At least one telephone line is off-hook.
	None	Off	Telephone is on-hook. Both telephone lines are inactive.

Quick Setup for the 834-v6 SDG

The SDG product line can ship with two possible firmware options: PlumeOS and SmartOS. Quick setup instructions of WiFi and connection to the Internet for your 834-v6 will vary based on which OS is installed on the device. Confirm whether your 834-v6 is deployed with SmartOS firmware or PlumeOS firmware, then choose accordingly from the following options.

- For devices shipped with PlumeOS installed, the setup requires installation of the HomePass smartphone app by Plume.

  The workflow for initializing an Adtran SDG differs slightly from other Plume enabled devices. Detailed quick setup instructions for Adtran SDGs using the HomePass app are available at the Adtran Support Community web site.
- For devices shipped with SmartOS installed, scan the QR code labeled WiFi Quick Start located on the back of the unit. You will be presented with a series of self-guided steps to choose your account password, select gateway or access point mode, and configure the WiFi SSID and passphrase. The specified account password will be used when logging into the GUI in the SDG.

Logging Into the 834-v6

Using SmartOS

A browser-based user interface (UI) is used to manually configure the 834-v6. The following steps describe how to connect and login to the device:

1. Ensure your computer is connected to the 834-v6 either via Wi-Fi or Ethernet connection to the LAN port.
2. Configure your computer's network interface to acquire an IP address automatically using DHCP.
3. Open a web browser and enter the following: **http://router** or **http://setup**. A sign-in page should appear. If you are unable to connect to the 834-v6 using either of these shortcuts, you can also enter the IP address of the unit. The default IP address is **192.168.1.1**.
4. The default username is **admin**. The password is the account password that was specified during the quick setup.

> **NOTE**
>
> *If you have forgotten the password for this device, select **Forgot password?** and follow the instructions to reset the gateway configuration to the factory defaults. Next, follow the instructions under "Logging Into the 834-v6"* on page 5.

5. Select **Sign In**. The **Dashboard** page appears, showing data about the system.

Using PlumeOS

When running PlumeOS, all settings are configured through either the HomePass smartphone app (customers) or the Frontline app in the Plume portal (ISP's). HomePass can be found in both the Google and Apple app stores. Frontline is located in the Plume portal at https://portal.plume.com/home.

Product Specifications

Electrical

- Power is provided by a 12V DC power adapter that is included with the 834-v6. The power adapter operates from a power source of 100 to 240V AC, 50 - 60 Hz. The nominal output is 12V DC ±5% with a minimum current rating of 2.5 Amps. For US and Canadian applications, a UL Listed limited power source (LPS) is supplied and required for use. For deployment outside of North America, an LPS specifically approved for that country, such as a CE Mark, is supplied and required for use.

> **NOTE**
>
> *It is strongly suggested that the power supply (a 5-foot (1.5 m) power cord) included with the 834-v6 be connected to a surge suppressor device which can have its own extension cable. The surge protection device should provide L-N, L-G, and N-G protection. It is also recommended that the device contains a visual 'GOOD' indicator.*

Environment

- Operating Temperature: 32°F to 104°F (0°C to 40°C)
- Storage Temperature: -40°F to 158°F (-40°C to 70°C)
- Relative Humidity: 10 to 95 percent, non-condensing

> **NOTE**
>
> *Changes or modifications not expressly approved by Adtran will void the warranty.*

Compliance

This product meets the following compliance requirements:

- UL /cUL Listed
- FCC Part 15, Class B
- ICES-003 (Class B)
- IEC 62368-1
- EN 62368-1, AS/NZS 62368.1
- RoHS Compliant
- PTC 220
- AS/CA 5003.3:2010

Safety and Regulatory

CAUTION!

- *Connect the DC power input to an approved Limited Power Source (LPS) power supply ONLY.*
- *This product is intended to operate in ambient temperatures up to 40°C.*
- *It is recommended that an external AC Surge Protection Device be installed at the AC input connection to the local AC-Powered product. The Surge Protection device should provide L-N, L-G, and N-G protection. It is also recommended that the device contains a visual 'GOOD' indicator.*
- *The product is intended for indoor use only. Ethernet, Voice, and attached equipment are intended for use within the same building with equipotential bonding, and not intended to be placed in separate buildings or structures. Failure to deploy as described could result in permanent damage from lightning or other electrical events and voids the warranty.*

NOTE

This product meets the following compliance requirements:

- *This equipment contains no parts that can be serviced by the user.*
- *This product meets EU RoHS Directive. Refer to www.adtran.com/environmental for further information on RoHS/WEEE.*
- *This product is NRTL Safety Listed to the applicable UL/CSA Standards.*
- *This product has also been evaluated to applicable international standards as indicated by CE, UKCA, and RCM marking.*
- *The AC branch circuit socket-outlet must be installed near the equipment and must be easily accessible.*
- *The RJ-45 jacks are not used for telephone line connection.*

Regulatory Compliance

This section includes user requirements for operating this product in accordance with National laws for usage of radio spectrum and operation of radio devices. Failure of the end-user to comply with the applicable requirements may result in unlawful operation and adverse action against the end-user by the applicable National regulatory authority.

This product's firmware limits operation to only the channels allowed in a particular Region or Country. Therefore, all options described in this user's guide may not be available in your version of the product.

Europe – EU Declaration of Conformity

Products bearing the marking comply with the following EU directives:

- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- WEEE Directive reference: 2012/19/EU

If this product has telecommunications functionality, it also complies with the requirements of the following EU Directive:

- RED 2014/53/EU

Compliance with these directives implies conformity to harmonized European standards that are noted in the EU Declaration of Conformity.

For indoor use only. Valid in all EU member states, EFTA states, and Switzerland.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

FCC Requirements for Operation in the United States

FCC Information to User

This product does not contain any user serviceable components and is to be used with approved antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

FCC Guidelines for Human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 25 cm between the radiator and your body.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

FCC Declaration of Conformity

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

FCC Radio Frequency Interference Warnings & Instructions

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 or more 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.

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

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Wi-Fi 6 Gigabit Router Model 834-v6) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Industry Canada

This device complies with RSS-247 of the Industry Canada 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.

CAUTION!

Radiation Exposure Statement: *This equipment complies with IC 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.*

ATTENTION!

Déclaration d'exposition aux radiations:*Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.*

This radio transmitter (IC: 2250A-649B) has been approved by Industry Canada to operate with the antenna types listed below. Antenna types not included in this list are strictly prohibited for use with this device.

ATTENTION!

i) les dispositifs fonctionnant dans la bande 5150-5250MHz 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) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5250 à 5350MHz et de 5470 à 5725MHz doit être conforme à la limite de la p.i.r.e;
(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5850MHz) 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;
(iv) les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.

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) The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the EIRP limits specified for point-to-point and non-point-to-point operation as appropriate.
(iv) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.
(v) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

NZ PTC 220

- *A 3-wire telephone line is not supported by this device.*
- *The number of CPE devices that can be operated in parallel is dependent on the CPE device characteristics. Assuming a maximum on-hook current draw of 120 uA per CPE device and the total ring load of less than 5 RN, a maximum of 4 CPE devices can be operated in parallel on each telephone port.*

Documentation for Adtran Network Solutions products is available for viewing and download directly from the Adtran Support Community website.
Go to: https://supportcommunity.adtran.com

For Adtran training inquiries, visit:
https://adtran.com/training

Access additional safety information and product documentation using the QR code or website link.

http://adtran.com/sdg-info

Warranty: Adtran will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found online at https://adtran.com/warranty.

Trademarks: Brand names and product names included in this document are trademarks, registered trademarks, or trade names of their respective holders.

CAUTION!
SUBJECT TO ELECTROSTATIC DAMAGE OR DECREASE IN RELIABILITY
HANDLING PRECAUTIONS REQUIRED

Adtran CUSTOMER CARE:
From within the U.S. 1.888.423.8726
From outside the U.S. +1 256.963.8716
PRICING AND AVAILABILITY 1.800.827.0807

6SDG834V6-13B