hitron



Model # **CODA56**

User Manual

Cable Modem

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Chapter 1 Hardware Overview

Getting Started

Hitron's CODA56 DOCSIS 3.1 Cable Modem provides an ultra-fast high-speed cable Internet connection with speeds up to 6 Gbps*. Use your CODA56 to directly connect a computer or a router to your Cable Internet service through an Ethernet connection. The Hitron CODA56 cable modem is certified by major cable Internet providers, such as Comcast Xfinity and Charter Spectrum. One 2.5 Gigabit Ethernet port provides the fastest speeds and downloads. The CODA56 cable modem supports the assignment of IPv4 and IPv6 addresses by cable Internet providers.

Note: For more information about the topics covered in this manual, please visit our support website at us.hitrontech.com/coda56.

What's in the Box

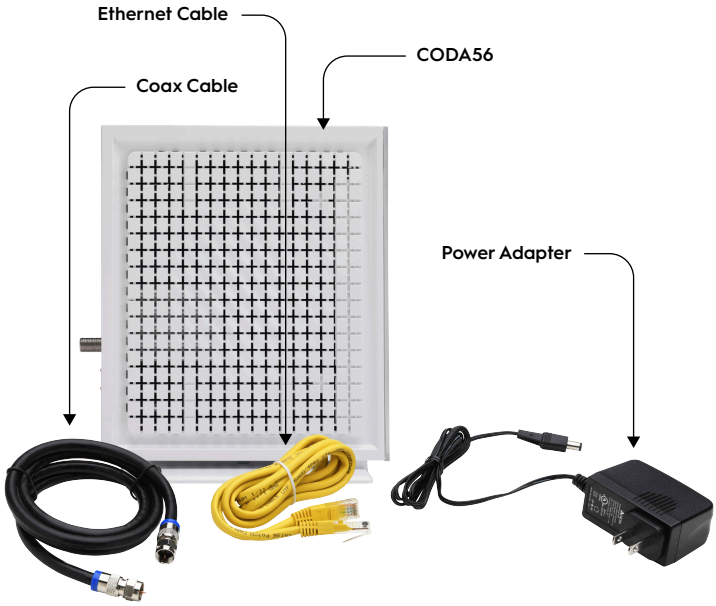


Figure 1: Package Contents

Chapter 1 Hardware Overview

Minimum System Requirements

- High-speed Internet access service (Cable).
- Computer with a working Ethernet port and an Ethernet cable with RJ45 connectors.
- Web browser access such as Microsoft Edge, Google Chrome, Firefox, or Safari.

Product Overview

- DOCSIS 3.1 2x2 multi-carrier OFDM/OFDMA
- DOCSIS 3.0 32x8 channel bonding
- Full-featured, high-bandwidth cable modem
- Full capture bandwidth
- IPv4 and IPv6 support
- Well-defined LEDs clearly display device and network status.
- 2.5 Gigabit Ethernet port for faster wired speeds.

Chapter 1 Hardware Overview

Front Panel (with Indicator LEDs)

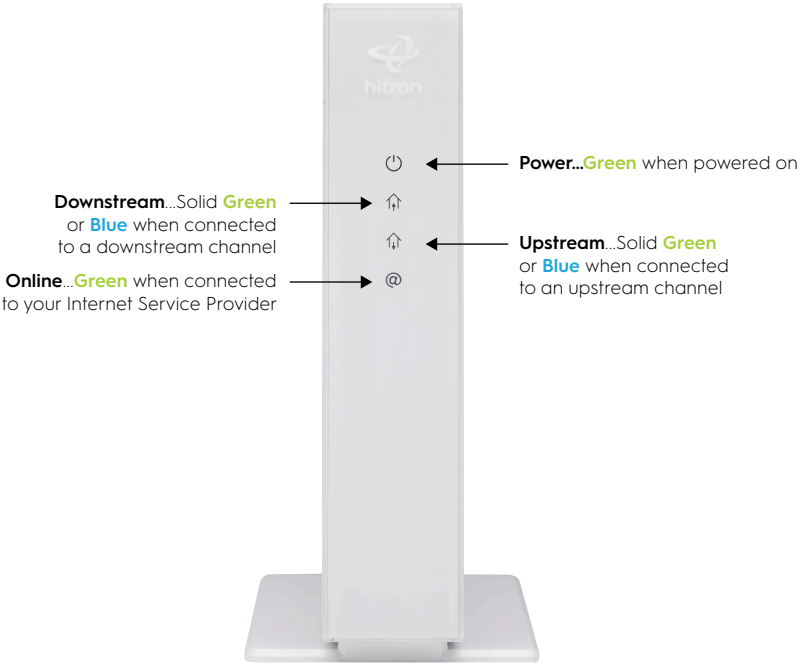


Figure 2: CODA56 Cable Modem Front Panel

Chapter 1 Hardware Overview

You can use the LEDs to verify status and connections. The following table lists and describes each LED on the front panel of the cable modem.

LED:	STATUS:	DESCRIPTION:
Power	Green, steady	The CODA56 is receiving power.
	Off	The CODA56 is not receiving power.
Downstream	Green, blinking	The CODA56 is searching for a downstream frequency on the CABLE connection.
	Green, steady	The CODA56 has successfully located and locked onto a single downstream frequency on the CABLE connection.
	Blue, steady	The CODA56 is successfully engaged in channel bonding on the downstream connection.
	Off	There is no downstream activity on the CABLE connection.
Upstream	Green, blinking	The CODA56 is searching for an upstream frequency on the CABLE connection.
	Green, steady	The CODA56 has successfully located and locked onto a single upstream frequency on the CABLE connection.
	Blue, steady	The CODA56 is successfully engaged in channel bonding on the upstream connection.
	Off	There is no upstream activity on the CABLE connection.
Online	Green, Blinking	The CODA56 cable modem is registering with the service provider's CMTS.
	Green, Steady	The CODA56 cable modem has successfully registered with the service provider and is ready for data transfer.
	Off	The CODA56 cable modem is offline.
2.5G (Back Panel)	Green, Steady	A device is connected to one or more of the LAN ports, via an Ethernet (10/100/2500Mbps) link.
	Off	No device is connected to either of the LAN ports.

Chapter 1 Hardware Overview

Rear Panel (Hardware Connections)

The rear panel has the connections shown in the following figure:

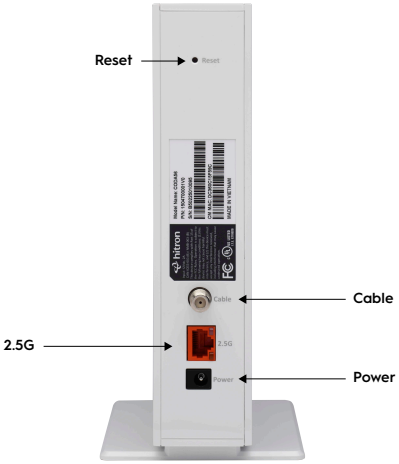


Figure 3: CODA56 Cable Modem Rear Panel

2.5G	This port connects your computer and other network devices, using Category 5 or 6 Ethernet cables with RJ45 connectors.
RESET	Use this button to reboot or restore your CODA56 cable modem configuration settings.
	To reboot (or restart) the cable modem:
	1. Insert the end of a paper clip or other small object with a narrow tip into the Reset opening on the back of your CODA56 modem.
	2. Press and hold the Reset button for three or four seconds only to reset the CODA56. The CODA56 resets, using your existing settings.
	To restore the cable modem configuration **back to factory default settings:**
	1. Insert the end of a paper clip or other small object with a narrow tip into the Reset opening of the back of your CODA56 modem.
	2. Press and hold the Reset button for 10 seconds or more to restore* the CODA56 back to its factory default settings. **NOTE: If you restore the CODA56, any modified settings cannot be recovered.*
CABLE	Use this to connect to the Internet via a coax cable.
POWER	Use the POWER port to connect the included 12 volt DC power adapter with your CODA56.

Chapter 1 Hardware Overview

Product Label

The cable modem product label is located on the rear panel of the cable modem and displays the serial number and MAC address of the cable modem.

To activate Internet service, you will have to contact your service provider for assistance. You may have to provide the following information listed on your cable modem product label:

- Model name (CODA56)
- Serial number (S/N)
- MAC address (CM MAC)

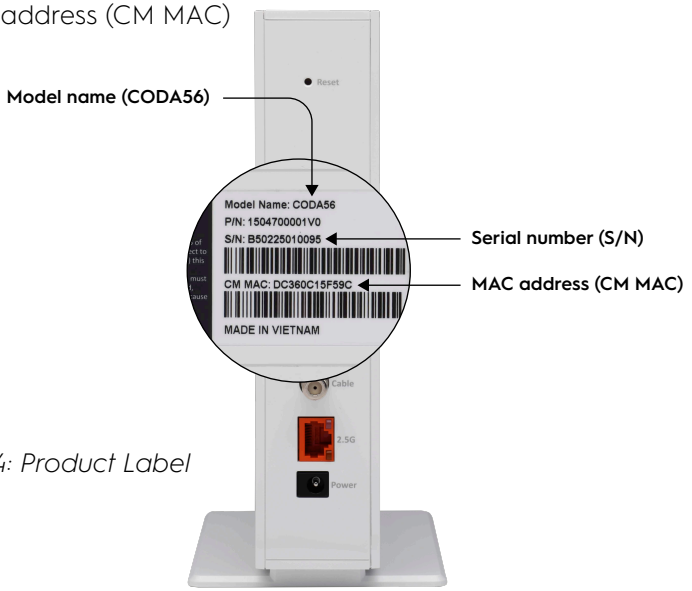


Figure 4: Product Label

Chapter 2 Connecting the Cable Modem

Where to Place your Cable Modem

Caution: This product is for indoor use only. Do not route the Ethernet cable(s) outside of the building. Exposure of the cables to lightning could create a safety hazard and damage the product.

Do not locate the cable modem where it will be exposed to moisture or excessive heat.

- Place the Modem in a location where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are placed safely out of the way so they do not create a tripping hazard.
- The Modem can be placed on a shelf or desktop.
- Keep away from the strong electromagnetic radiation and electromagnetic devices.
- The product should be properly grounded (earthed) by connecting to a cable distribution system in accordance with ANSI/NFPA 70, the National Electrical Code (NEC) - Section 820.93 - Grounding of Outer Conductive Shield of a Coax Cable.

The cable modem provides a connection between your cable Internet provider's network and your computer, router, or WiFi router. Before installing the modem, choose a location where your computer and modem are near existing cable and electrical wall outlets.

Chapter 2 Connecting Your Modem

Connect your Cable Modem to a Computer

You must **connect the cable modem directly to a computer** during the installation and activation. After installation and activation, you can connect the cable modem to a router (see **Connect Your Cable Modem to a Router After Installation and Activation** on page 13).

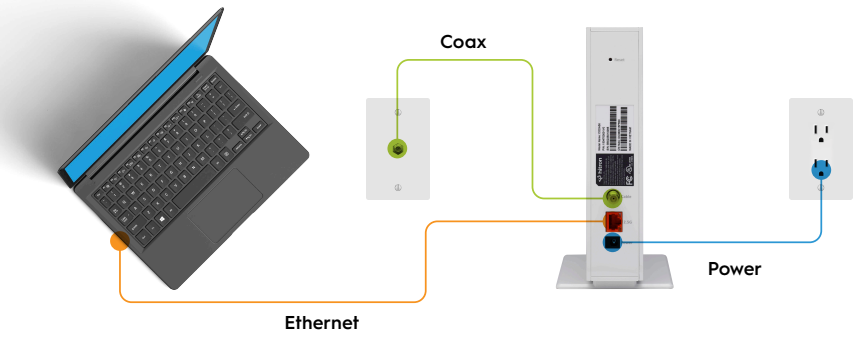


Figure 5: Connect your CODA56 cable modem directly to a computer

Note: Before you connect the cable modem and contact your cable Internet service provider, you should have your cable account number, account phone number, and login information (your email address or user name and password) available.

How to connect your cable modem directly to a computer:

1. Turn off your existing modems and routers.

   If you are replacing a modem that is currently connected in your home, unplug that modem and plug the new cable modem into the same outlet.

2. Connect the coax cable.

   Use the coax cable provided in the package to connect the CABLE port on the rear panel of the cable modem to a cable wall outlet or a line splitter. Make sure that the cable connection is hand-tightened to secure the connection.

3. Connect the power adapter provided in the package to the Power port on the cable modem and plug the other end of the power adapter into an electrical outlet.

   When the start-up procedure is completed, the Power LED lights will be solid green.

4. Wait for the cable modem to come online.

   It can take up to 10 minutes for the cable modem to come online on your network. During this time, the LED behavior is as follows:

   Downstream LED
   The Downstream LED lights blinks green when more searching for a downstream frequency.

   The Downstream LED lights solid green when a downstream channel is successfully connected.

   The Downstream LED lights blink green to solid green to blue.

   Upstream LED
   The Upstream LED lights blinks green when searching for an upstream frequency.

   The Upstream LED lights solid green when one upstream channel is successfully connected.

   The Upstream LED lights blink green to solid green to blue.

   After the cable modem registers with your cable Internet provider, the Online LED lights solid green.

5. Turn off the computer to which you intend to connect the cable modem.

6. Use the Ethernet cable provided in the package to connect one of the LAN ports on the rear panel of the cable modem to an Ethernet port on your computer.

7. Turn on your computer.

   Even though an Internet connection is established, you will need to set up Internet service with your cable Internet provider.

   For information about how to activate your Internet service, see Chapter 3 **Connecting to the Internet**, **Activate Your Internet Service** on the next page.

Chapter 3 Connecting to the Internet

Activating your Internet Service

To activate your Internet service:

1. Please follow the instructions listed in the CODA56 Quick Start Guide. In the event that you need to contact your Internet Service Provider, below are some contact details.

CABLE INTERNET PROVIDER:	CONTACT INFORMATION:
Comcast XFINITY	https://register.xfinity.com https://xfinity.com/support/articles/activate-purchased-modem 1-800-XFINITY (1-800-934-6489)
Spectrum	https://activate.spectrum.net 1-833-267-6094

Please Note: Your cable Internet provider's contact information may change. You can find the current contact information in your monthly Internet service billing statement.

2. If you are unable to activate your Internet service using the instructions on your cable Internet provider's website, please call your cable Internet provider.
   a. You may be asked to provide your account information and your cable modem's model number, serial number, and MAC address. The serial number and MAC address are on the product label on the rear panel of your cable modem.
   b. Your cable Internet provider will need to confirm that your cable modem is active.
   c. If you do not get an Internet connection with your cable modem, ask your cable Internet provider to verify if your cable modem is online.
      i. If the cable modem is not visible to your Internet provider, your cable Internet provider can give you instructions to verify why the cable modem does not connect with your high-speed Internet service.
      ii. If the cable modem is visible to your cable Internet provider, reboot your cable modem and check your online status again.

Chapter 3 Connecting to the Internet

For information about how to reboot your cable modem, see the next two pages.

Perform a Speed Test

To determine your accurate Internet speed, please visit the speed test website of your cable Internet provider and perform a speed test.
If your actual speed is lower than your subscribed speed, you should contact your cable Internet provider.

Connect your Cable Modem to a Router After Installation and Activation

During the installation and activation, you must connect the cable modem directly to a computer. But after installation and activation, you can connect the cable modem to a router.

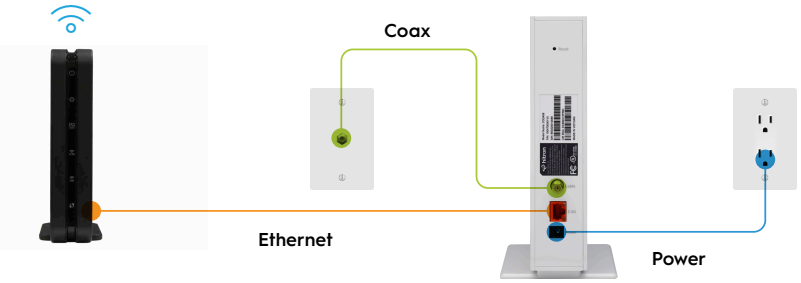


Figure 6:. Connect your CODA56 cable modem to a router

Chapter 3 Connecting to the Internet

To connect your cable modem to a router after installation and activation:

1. Reboot your cable modem by unplugging the power cable from the cable modem and plugging it back in.

   Note: Do not disconnect your cable modem from the cable wall outlet.

   When the start-up procedure is completed, the Power LED will turn solid green. This may take a few minutes to stop blinking and light solid green.

2. Use an Ethernet cable to connect the Ethernet port on your cable modem to the WAN or Internet port on your router.

3. Power on the router.

   Wait until the router is ready (check your router's instruction manual to determine when its ready).

4. Connect a computer to the router over a WiFi connection or with an Ethernet cable to a LAN port on the router.

Chapter 4 Troubleshooting

Troubleshooting

If the solutions listed here do not solve your problem, please contact your Internet service provider.

Table 1 Troubleshooting Your Cable Modem

Reboot (or restart) the cable modem Resets your cable modem to your existing settings.	1. Insert the end of a paper clip or other small object with a narrow tip into the Reset opening on the back of your CODA56 modem. 2. Press and hold the Reset button for three or four seconds only to reset the CODA56. The CODA56 resets, using your existing settings.
Restore (resets to Factory Default Settings) the cable modem **NOTE: If you restore the CODA56, any modified settings cannot be recovered.*	1. Insert the end of a paper clip or other small object with a narrow tip into the Reset opening of the back of your CODA56 modem. 2. Press and hold the Reset button for 10 seconds or more to restore* the CODA56 back to its factory default settings. **NOTE: If you restore the CODA56, any modified settings cannot be recovered.*

Specifications

Table 2 Technical Specifications

FEATURE:	SPECIFICATION:
Power adapter	• Input: 100-240VAC, 50/60Hz • Output: 12VDC, 2A
Physical specifications	• Dimensions: 51.5mm (H) x 171mm (W) x 171mm (D) • Weight: 464+/- 10g
Environmental	• Operating temperature: 32*F to 104*F (0*C to 40*C) • Operating humidity: 90% maximum relative humidity (non-condensing)
Interface	• Local: 1x RJ-45 10/100/2500BASE-T Gigabit Ethernet port • Internet: Coax cable connector • DOCSIS 3.1; backward compatible with DOCSIS 3.0
Memory	• 128 MB Flash • 512 MB RAM
Channels	• 2 OFDM and 32 SC-QAM bonded downstream • 2 OFDMA and 8 SC-QAM bonded upstream
Certifications	• CableLabs DOCSIS certified for U.S. cable Internet services • FCC/UL/cUL

Chapter 4 Troubleshooting

Limited Warranty

This product is backed by a Hitron limited 180 day Hardware Warranty when purchased from a Hitron authorized reseller. Go to https://us.hitrontech.com/legal/limited-warranty-statement/ for more information.

Support

Basic technical support provided for 90 days from purchase date, when purchased from a Hitron authorized reseller. For support, go to https://us.hitrontech.com/CODA56

Notes

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