ARISTA

Quick Start Guide

C-460E Access Point

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Chapter 1

About This Guide

This installation guide explains how to deploy the C-460E access point (AP).

Important: Read the EULA before installing the access point (AP). You can download and read the EULA from the Arista Product Documentation.

Installing the AP constitutes your acceptance of the terms and conditions of the EULA mentioned above.

Intended Audience

This guide can be used by anyone installing and configuring the access point.

Document Overview

This guide contains the following chapters:

- Package Content
- Access Point Overview
- Installing the Access Point
- Access Point Troubleshooting

Note: All instances of the term 'server' in this document refer to the Wireless Manager unless otherwise explicitly stated.

Product and Documentation Updates

To receive important news on product updates, please visit Arista Product Documentation.. We continuously enhance our product documentation based on customer feedback

This equipment conforms to the requirements of the NCC.

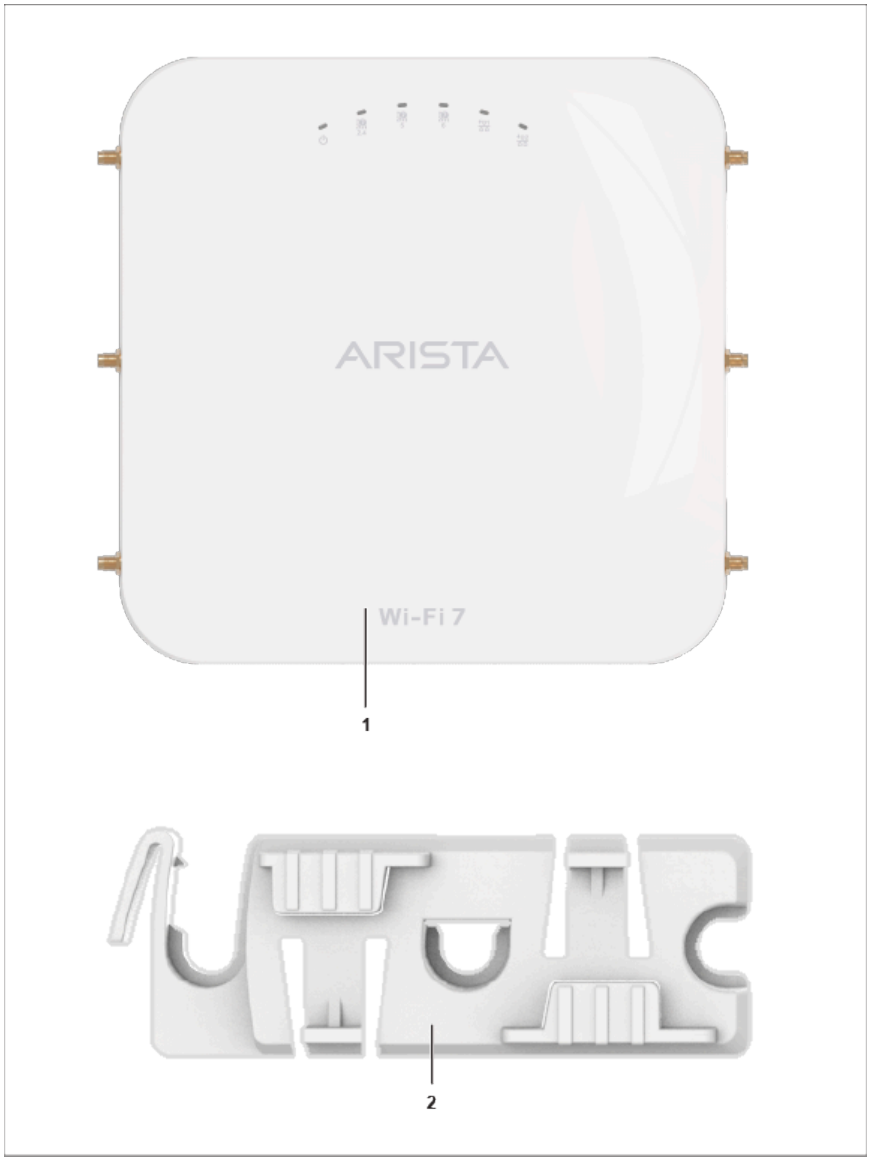
- 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
- 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- 無線資訊傳輸設備避免影響附近雷達系統之操作。

Chapter 2

Package Content

The access point (AP) package must contain the components shown in the following figure.

Figure 2-1: Package Components



1 C-460E Access Point

2 15/16" (24 mm) Mounting Bracket (MNT-AP-24MM)

Important: Make a note of the AP MAC address and the IP address in a safe place before installing it in a hard-to-reach location. Locate the AP MAC address on a label at the bottom of the product.

If you don't have a complete package, please contact the Arista Networks Technical Support Team at support-campus@arista.com or return the package to the vendor or dealer where you purchased the product.

Chapter 3

Access Point Overview

C-460E is a multi-radio 802.11be access point. Refer the datasheet for more information.

Note: This equipment is suitable for use in environment air spaces (plenums).

FCC Advisory: C-460E is prohibited for control of or communications with unmanned aircraft systems, including drones, in the 6 GHz band.

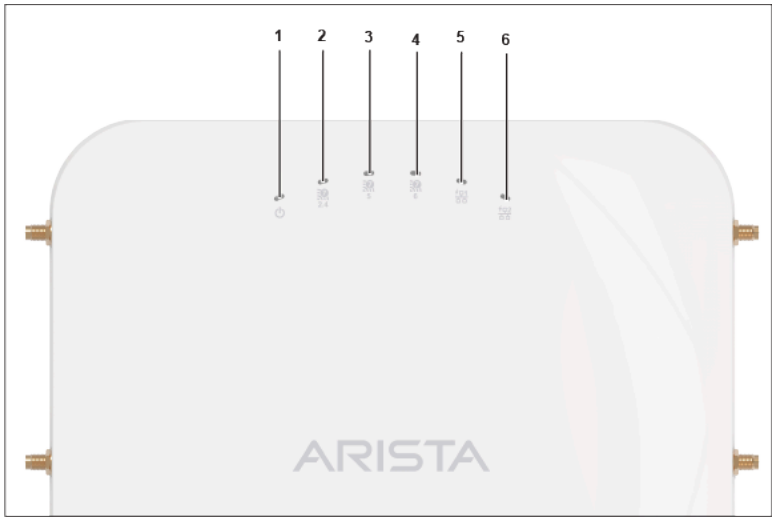
This section provides an overview of the access point (AP) and describes the following:

- Front Panel
- Rear Panel
- Side Panel

3.1 Front Panel

The front panel of the AP has 6 LEDs that indicate the status of various AP functions.

Figure 3-1: Front Panel LEDs



1	Power	2	2.4 GHz Radio	3	5 GHz Radio
4	6 GHz Radio	5	LAN1	6	LAN2

Power LED

The following table describes the Power LED states:

Table 1: Power LED States Description

	Green	Orange
Solid	Running at full capability	Running at reduced capability
Blinking	Received IP address, but not connected to the server	Did not receive an IP address

Reduced capability indicates that the AP receives less than the required maximum power from the PoE++ switch. It means the AP receives 802.3at instead of 802.3bt.

LAN1 LED - ON when the corresponding interface up.

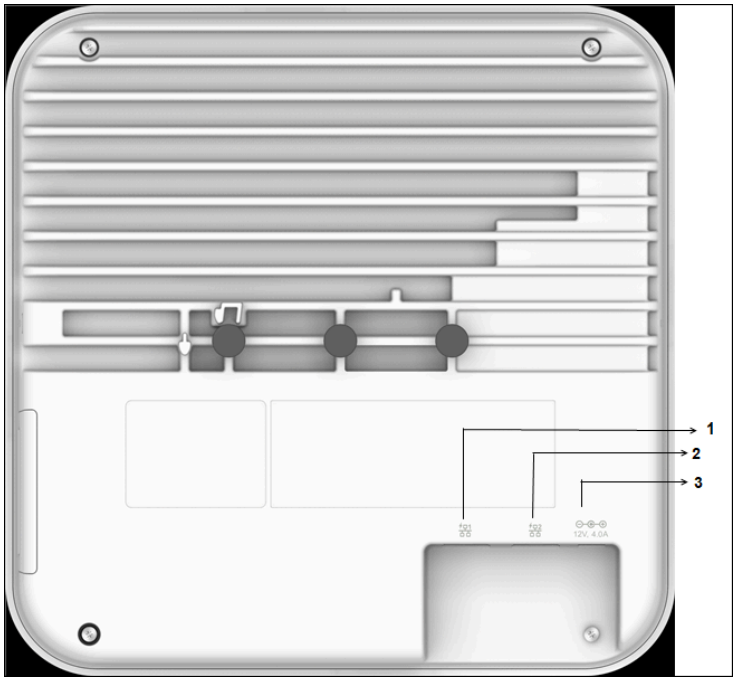
LAN2 LED - ON when the corresponding interface up and either wired guest or link aggregation configured.

Radio LEDs - ON when the corresponding radio operational.

3.2 Rear Panel

The rear panel of the AP has a DC power port and 802.3bt compliant PoE++ LAN ports to power the device and connect it to a wired LAN.

Figure 3-2: Rear Panel



1 LAN1, POE++ 2 LAN2, POE++ 3 DC Power

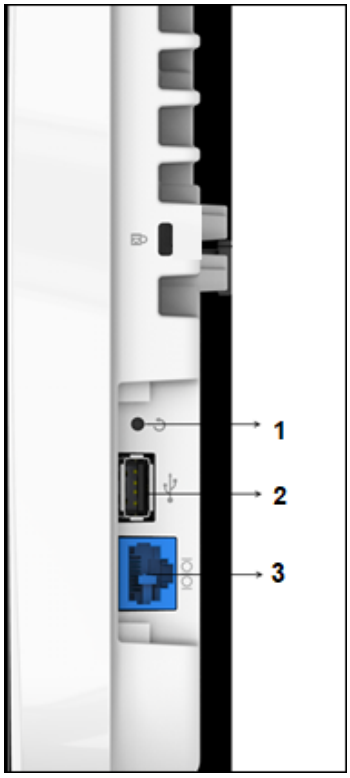
Table 2: Port Details

Port	Description	Connector Type	Speed/Protocol
Power	12V DC/4.0A	5.5 mm overall diameter / 2.1 mm center pinhole	N/A
LAN 1	10 Gigabit Ethernet with 802.3bt compliant PoE	RJ-45	11.5/8.6/1.4 Gbps Ethernet
LAN 2	10 Gigabit Ethernet with 802.3bt compliant PoE	RJ-45	11.5/8.6/1.4 Gbps Ethernet

3.3 Side Panel

The side panel of the AP has a reset pinhole, USB port, and console port.

Figure 3-3: Side Panel



1 Reset 2 USB 3 Console

Port	Description	Connector Type	Speed/Protocol
Console	Establish ‘config shell’ terminal session through a serial connection.	RJ-45	• RS 232 Serial (115200 bits per second) • Data bits:8; Stop bits: 1 • Parity: None • Flow Control: None
USB	USB 2.0 port with power output rating of 5V/0.3A (1.5W).	USB	Future Use
Reset	Reset to factory default settings port. Hold down and power cycle the device to reset.	Pinhole push button	N/A

When you reset the AP, it affects the following settings:

- Resets the Config shell password to **config**.
- Erases the server discovery value and changes it to the default, **redirector.online.spectraguard.net** (primary) and **wifi-security-server** (secondary).
- Loses all the VLAN configurations.
- If configured with a static IP, erases the AP IP address and resets it to DHCP mode with the AP factory default IP address, 169.254.11.74.

Chapter 4

Installing the Access Point

This chapter contains the procedure to install the access point (AP).

Zero-Configuration of the Access Point

The AP supports zero-configuration under the following conditions:

- The device must be in AP mode with background scanning on and without a configured SSID.
- Set up a DNS entry for **wifi-security-server** on all the DNS servers. This entry should point to the IP address of the server. By default, the AP looks for the DNS entry **wifi-security-server**.
- Place the AP on a subnet with DHCP-enabled.

Refer to these articles to understand how APs communicate with the server, and the network ports to open for enabling the communication:

- Wi-Fi Access Points-Server Communication
- Ports, IP Addresses, and URLs used by ARISTA Access Points
-

Important: If placing the device on a network segment separated from the server by a firewall, you must first open port 3851 for User Datagram Protocol (UDP) and Transport Control Protocol (TCP) bidirectional traffic on the firewall. This port number is assigned to Arista Networks. Zero-configuration does not support setting up multiple devices to connect to multiple servers. In this case, you must manually configure the APs. See the Access Point Configuration Guide on the Arista website at Arista Product Documentation.

Assign a static IP to the AP or change the settings to DHCP. Make a note of the MAC address and the IP address of the AP in a safe place before installing it in a hard-to-reach location. Locate the MAC address of the AP on a label at the bottom of the product.

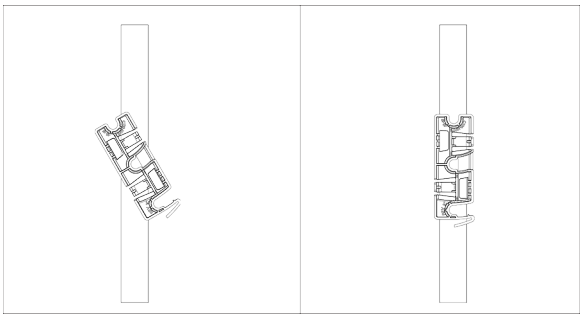
Use the following steps to install the devices:

1. Ceiling Mounting the Access Point or Wall Mounting the Access Point
2. Connecting the Access Point to the Network
3. Powering On the Access Point

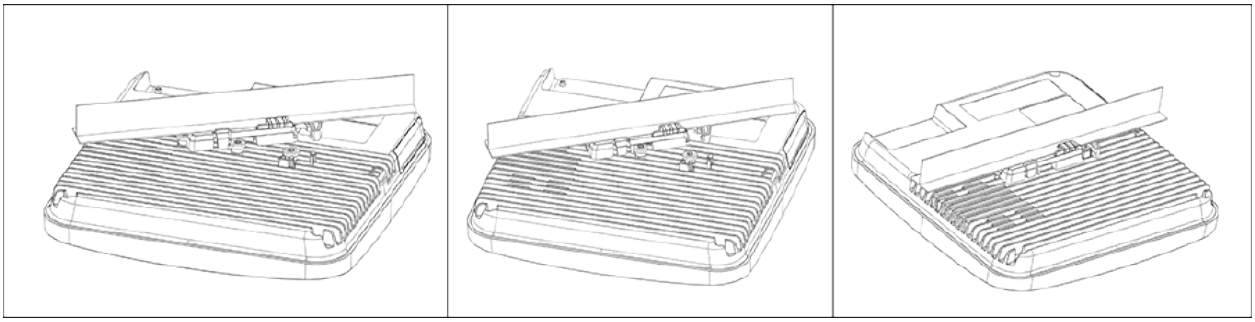
4.1 Ceiling Mounting the Access Point

Mounting the access point (AP) on the ceiling consists of the following steps:

1. **Attach the bracket to the T-grid:** Use the mounting bracket to install the AP on the ceiling. Attach the bracket to the T-grid and rotate the bracket so that it snaps on the T-grid. The bracket becomes parallel to an arm of the T-grid. Be sure the bracket properly snaps to the T-grid, as shown below.



2. **Mounting the AP on the bracket:** Place the first mounting post on the rear-side of the AP on to the lower notch of the bracket. Rotate the AP so the center mounting post fits in to the center notch on the bracket. Be sure all the mounting posts on the rear-side of the AP snap into the respective notches on the bracket. The mounting posts now properly fit in the respective notches of the bracket and the AP mounts properly.



Mounting Instructions using the Silhouette/Interlude Bracket Mount: The standard package does not include the Silhouette/Interlude mounting bracket and must be procured separately. The mounting instructions for the Silhouette/Interlude Bracket Mount contain steps similar to the Standard Package Content mounting instructions.

Note: As a best practice, label the APs using MAC addresses or your own convention. For example, use AP serial numbers so that you can easily identify the APs.

4.2 Wall Mounting the Access Point

Note: The wall mounting accessory SKU (MNT-AP-FLAT-14CM) can be ordered and purchased separately.

For instructions on wall mounting the access point, refer to Wall Mount the Access Point article.

4.3 Connecting External Antennas to Access Point

Connect the external antennas to antenna ports available on the left and right of the AP. Use RP-SMA type connectors for the antennas. All the ports support multi-band connectivity - 2.4, 5, and 6 GHz.

Figure 4-1: Right Panel Antenna Ports

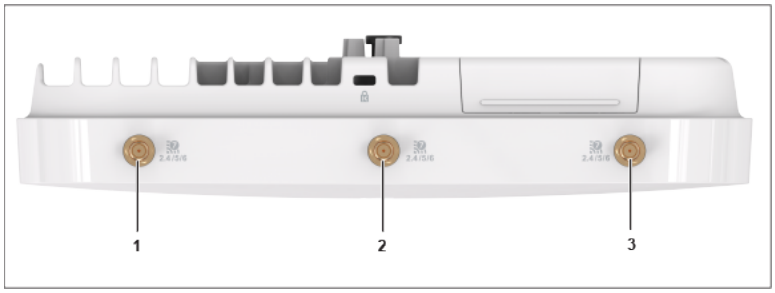
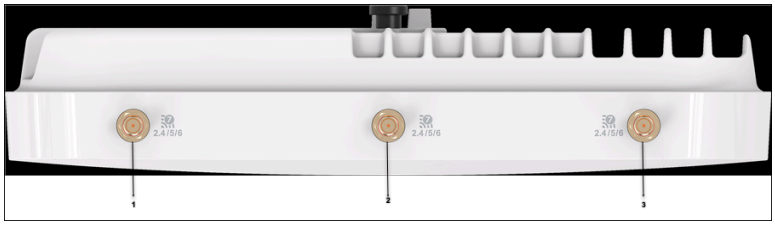


Figure 4-2: Left Panel Antenna Ports



1	Multi-band antenna for 2.4, 5, and 6 GHz bands.	2	Multi-band antenna for 2.4, 5, and 6 GHz bands.	3	Multi-band antenna for 2.4, 5, and 6 GHz bands.

Chapter 5

Powering On the Access Point

Power the access point (AP) on by plugging one end of the Ethernet cable into the PoE++ switch or injector and the other end into the Ethernet/PoE++ port on the AP. Be sure to turn on the PoE ++ source.

As an alternative to PoE++, you can insert a compatible power adaptor plug into an AC power outlet and the other end into the power input port on the AP.

Note: If not using PoE++, ensure that you use only an AC power adaptor supported by the AP.

5.1 Using the Access Point with Power Adapter

Use a compatible power adapter (Arista SKU: PWR-AP-W5) to power the AP.

Warning:

Install the C-460E AP with a UL-listed PoE power source suitable for operation at 40ºC and output that meets LPS requirements or PS2, with a 48V DC (0.5A minimum) rating. If you do not use PoE+, install the AP with an AC power adapter with a Listed Direct Plug-In Power Unit marked “Class 2”, Listed Power Adapter, or DC power source marked “L.P.S.” (or “Limited Power Source”) and rated from 12 V DC, 2.5A minimum.

The maximum altitude of operation for the power adapter is 5000m.

To power up the device with power adapter, perform the following steps:

1. Plug the power cable into the DC power receptacle on the back of the AP.
2. Plug the other end of the power cable into an 110V~240V 50/60 Hz AC power source.
3. Wait until the AP becomes ready. Refer to the LED status table.

Chapter 6

Connecting the Access Point to the Network

To connect the AP to the network, perform the following steps:

1. Be sure to install the AP on a network with a DHCP-enabled serve
2. Set up a DNS entry for **wifi-security-server** on all DNS servers. This entry should point to the server IP address. By default, the AP looks for the DNS entry, **wifi-security-server.**
3. Verify the AP LED status as ON.
4. Log on to the server using SSH and run the **`get sensor list`** command.

   The command returns a list of all Arista devices recognized by the server. Single Sign-On users can go to the **Monitor** tab in CloudVision Cognitive Unified Edge and check if the access point became visible on the tab.

Note: If zero configuration fails, the AP must be configured manually.

Important: If the subnet does not have DHCP enabled, the AP cannot connect to that subnet with zero-configuration. If no DNS entry exists on the DNS servers, or if you do not have a DHCP server running on the subnet, you must manually configure the AP. For details on configuring an AP manually, refer to the Access Point Configuration guide at Arista Product Documentation.

6.1 Connecting the Access Point using PoE

If using a PoE injector, be sure to plug the data connection into a suitable switch port with proper network connectivity.

For PoE port details, see the Rear Panel section.

Chapter 7

Access Point Troubleshooting

The table below lists some of the troubleshooting guidelines for the access point (AP).

Problem	Solution
The AP did not receive a valid IP address via the DHCP.	Be sure you have an active DHCP server available on the VLAN/subnet with the connected AP. If the AP still fails to get a valid IP address, you can reboot it to resolve the issue.
Unable to connect to the server.	• Be sure you have an active server and reachable by the connected. If a firewall or a router has Access Control Lists (ACLs) enabled between the AP and the server, allow traffic on UDP port 3851. • Use the IP-based server discovery method and be sure you correctly entered the DNS name, **wifi-security-server**, on the DNS server. • Be sure the DNS server has correctly configured the IP addresses, or provided by the DHCP server. • The AP might fail to authenticate with the server. In this case, an 'Authentication failed ' event logs to the server. Refer to the event for recommended action.
The AP has encountered a problem.	• If you are using Arista Cloud Services, then open the TCP port 443 (SSL). If you have an on-premises installation, then open UDP port 3851 and port 80. • If you are using a Proxy, Web Accelerator, or URL Content Filter between the AP and the Internet, ensure that the settings allow communication between the AP and Arista Cloud Services. • If your configuration requires you to specify an exact IP address or IP range for Arista Cloud Services, contact support-campus@arista.com.