Install the Antenna

This chapter describes the installation instructions of CW-ANT-T-D3-N antenna with Cisco Wireless 9179F Wi-Fi 7 Access Point and contains these sections:

Installation guidelines

Optimal performance factors

Antennas transmit and receive radio signals that are susceptible to RF obstructions and common sources of interference, which can reduce the throughput and range of the connected devices.

These guidelines ensure optimal performance:

- Keep the antenna away from metal obstructions such as
  - heating,
  - air-conditioning ducts,
  - large ceiling trusses,
  - building superstructures, and
  - major power cabling runs.

Tip Use a rigid conduit to lower the antenna away from these obstructions.

- In an outdoor environment, connect the antenna to a lightning arrestor and ensure proper grounding.
- Due to the tight side lobe configuration, the antenna does not support RRM. Configure the channel and power for it statically.
- Australian regulatory restrictions are applied when the device is configured for the -Z domain with the country set as Australia. This results in a band lock on radios that are enabled.

Location considerations

The density of the materials used in a building's construction determines the number of walls the signal can pass through and maintains adequate signal strength.

Consider these before choosing the location for your antenna:

- The density of the materials used in a building's construction determines the number of walls the signal can pass through and maintains adequate signal strength. Consider the following before choosing the location for your antenna:
  - Signals penetrate paper and vinyl walls with little change to signal strength.
  - Signals penetrate only one or two solid and precast concrete walls without degrading signal strength.
  - Signals penetrate three or four concrete and woodblock walls without degrading signal strength.
  - Signals penetrate five or six walls constructed of drywall or wood without degrading signal strength.
  - Signals are likely to reflect off a thick metal wall and may not penetrate it at all.
  - Signals are likely to reflect off a chain–link fence or wire mesh spaced between 1 and 1 1/2 inches. (2.5 cm and 3.8 cm) The fence acts as a harmonic reflector that blocks the signal.
- Install the antenna away from microwave ovens and 2-GHz cordless phones. These products can cause signal interference because they operate in the same frequency range as the device.

Important safety instructions

Danger IMPORTANT SAFETY INSTRUCTIONS: Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Read the installation instructions before using, installing, or connecting the system to the power source.

Use the statement number provided at the end of each warning statement to locate its translation in the translated safety warnings for this device. SAVE THESE INSTRUCTIONS Statement 1071

Danger **Only skilled person should be allowed to install, replace, or service this equipment. Refer to Statement 1089 for description of skilled person. Statement 1090**

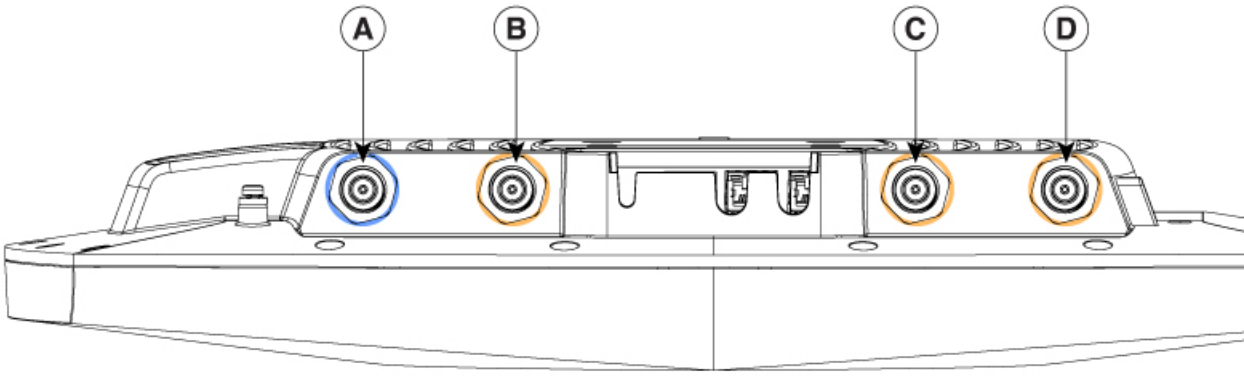
Danger **To reduce the risk of electric shock, refer to national and local codes for proper installation and grounding of antennas. Statement 1052**

Note **To reduce the risk of electric shock, the chassis of this equipment needs to be connected to permanent earth ground during normal use. Statement 0445**

Install the Antenna on Cisco Wireless 9179F Access Point

This procedure provides information about installing the CW-ANT-T-D3-N antenna to Cisco Wireless 9179F Wi-Fi 7 Access Point. Cisco Wireless 9179F Wi-Fi 7 Access Point supports four N-TYPE ports. You can install the antenna in any of these ports as in the figure.

Figure 1: N-TYPE ports



A	Port A 2.4/5 GHz (Purple Ring)	B	Port B 2.4/5 GHz (Orange Ring)
C	Port C 2.4/5 GHz (Orange Ring)	D	Port D 2.4/5 GHz (Orange Ring)

Complete these steps to install the antenna.

Before you begin

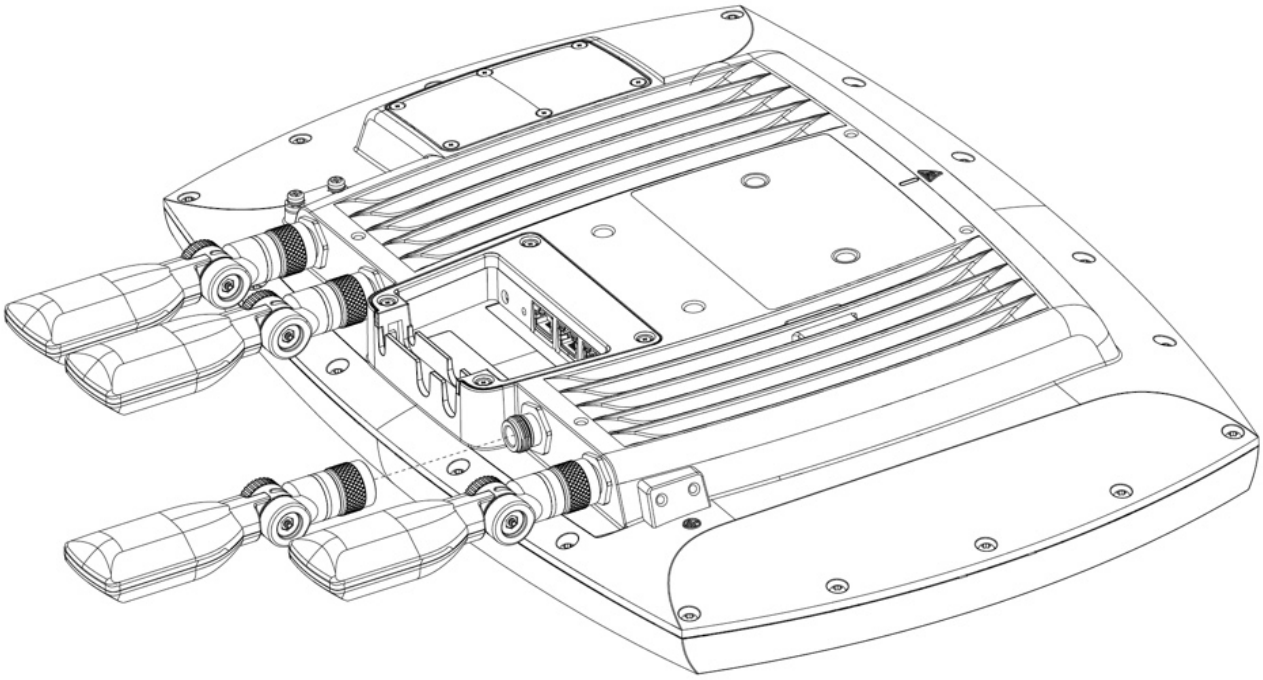
Because the antennas transmit and receive radio signals, they are susceptible to RF obstructions and common sources of interference that can reduce throughput and range of the device to which they are connected.

Procedure

Step 1 Place the Cisco Wireless 9179F Access Point on stable ground to ensure safety during installation.

Step 2 Align the antenna with the N-Type connector port on the access point.

Figure 2: Align antenna



Step 3 Plug the antennas into the access point by connecting each antenna to one of the four N-Type connector ports. Ensure that all four ports have antennas attached.

Step 4 Rotate the metal portion of the antenna connector to secure it firmly to the access point.

Do not use or apply force to the plastic portion of the antenna when securing.

Step 5 To tilt the antenna, gently loosen the adjustment knob.

Note
We recommend that you do not over-loosen or remove the adjustment knob. Loosen the knob only enough to allow the antenna to tilt as needed.

Step 6 Adjust or articulate the antenna between +90° and -90° as required for optimal signal coverage.

Step 7 Once the position is set, tighten the adjustment knob securely.

Figure 3: Antenna installed

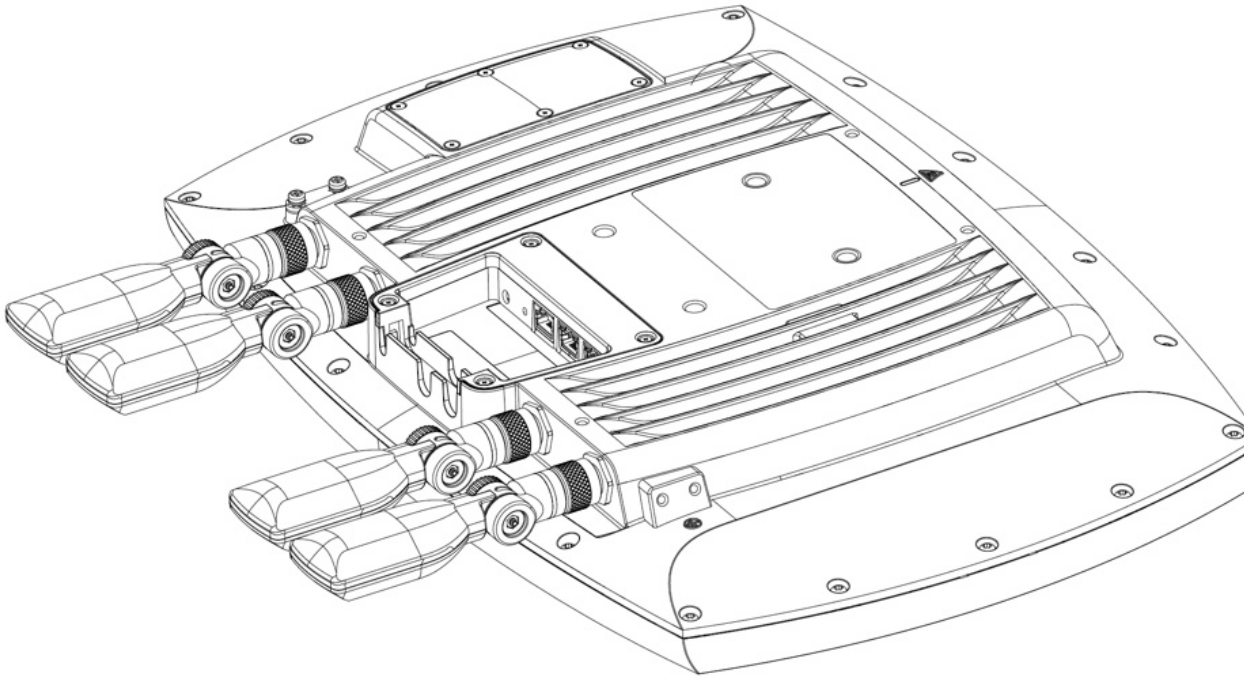
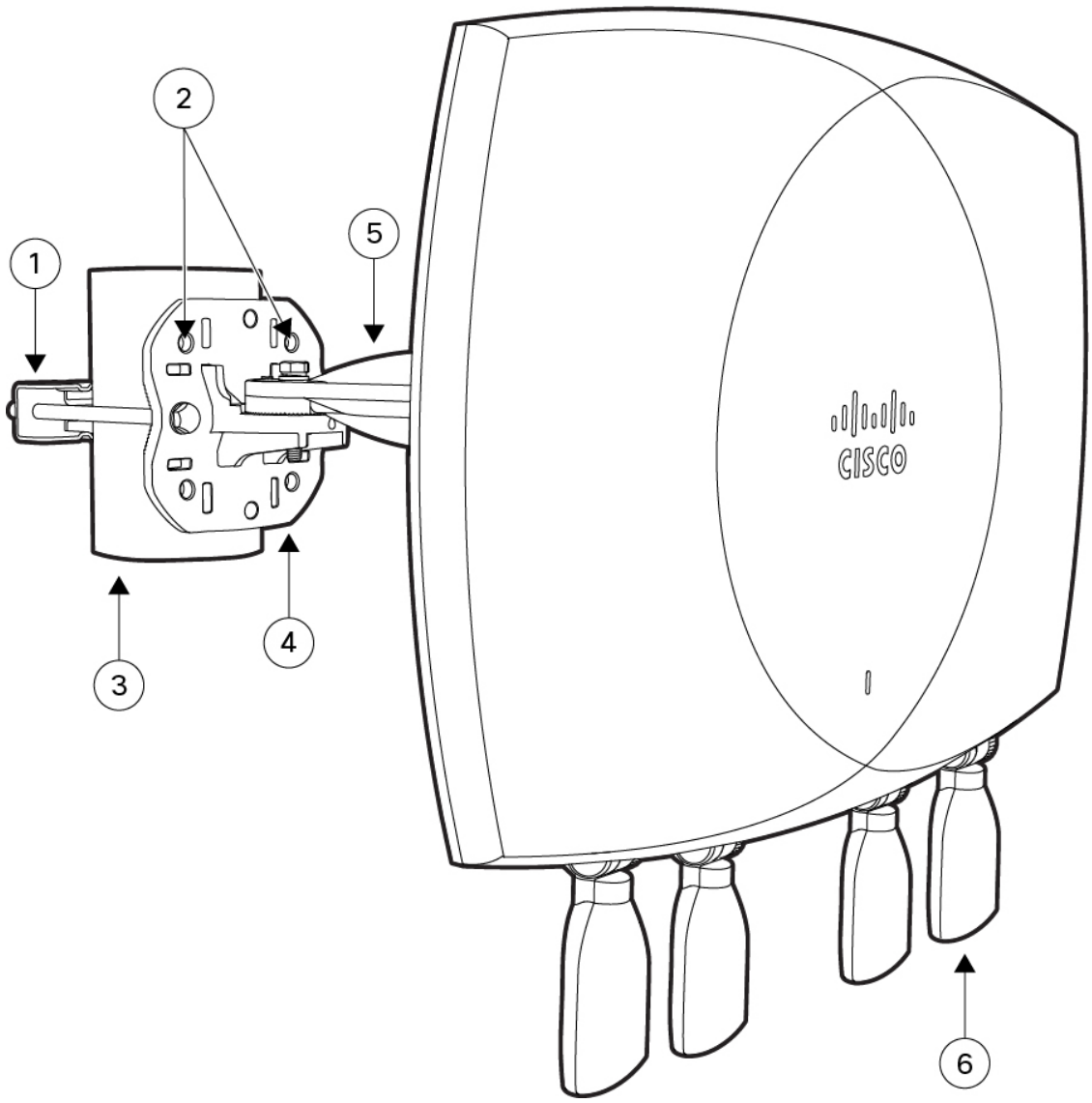


Figure 4: Antenna Assembly for Pole Mounting



1	Clamp	2	Flange mounting hole
3	Small pole	4	Mount flange
5	Arm	6	CW-ANT-T-D3-N antenna