Contents

1 Preparing for installation

Safety recommendations

⚠ **WARNING!**

Only professional technical personnel can install and remove the AP and its accessories. You must read all safety instructions carefully before working with the AP.

To avoid possible bodily injury and equipment damage, read the following safety recommendations before installing the AP. Note that the recommendations do not cover every possible hazardous condition.

- To avoid bodily injury and device damage, take adequate safety measures.
- Place the AP in a dry and flat location and take anti-slip measures.
- Keep the AP clean and dust-free.
- Do not place the AP in a moist area and avoid liquid intrusion.
- Keep the AP and installation tools away from walkways.

Site preparation

Before installing the AP, examine the installation site and ensure that the AP will operate in a favorable environment. Make sure the temperature and humidity at the installation site meet the requirements in Table 1-1.

Table 1-1 Temperature and humidity requirements

Item	Specification
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	5% RH to 95% RH, noncondensing

Installation accessories

Figure 1-1 Accessories provided with the AP
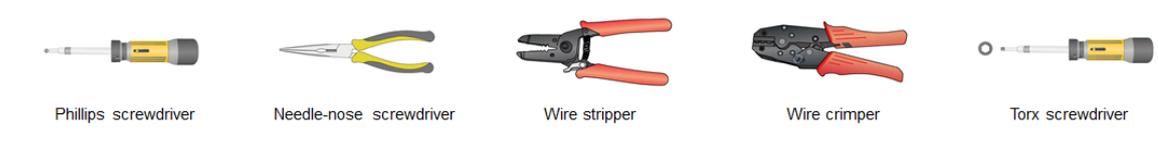

M3×4 security screw   M4×25 screw   Mounting bracket

Installation tools

When installing the AP, you might need the following tools. Prepare the installation tools yourself as required.

Figure 1-2 Installation tools

| Phillips screwdriver | Needle-nose screwdriver | Wire stripper | Wire crimper | Torx screwdriver |

Device and mounting bracket dimensions

Figure 1-3 AP dimensions

30mm (1.18 in)
86mm (3.39 in)
160mm (6.30 in)
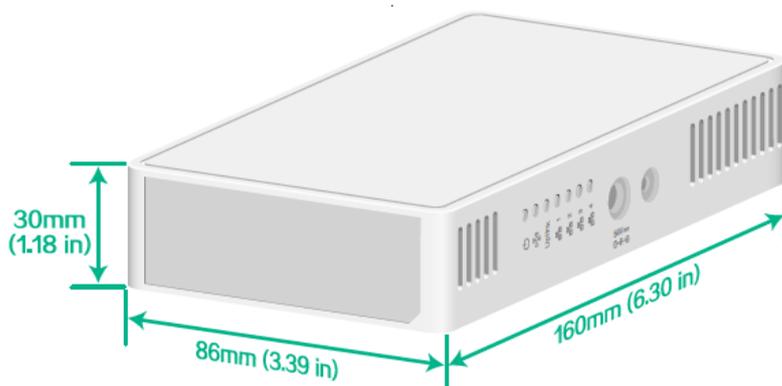
Figure 1-4 Mounting bracket dimensions

83mm (3.27 in)
UP
100mm (3.94 in)
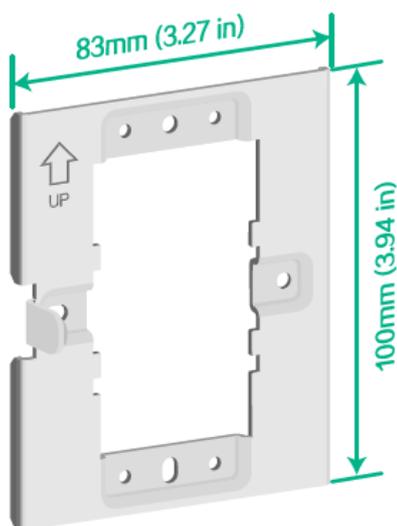
2 Installing the AP

Installation flowchart

Figure 2-1 Installation flowchart

```
          ┌──────────────────────────────┐
          │            Start             │
          └──────────────────────────────┘
                         │
                         ▼
          ┌──────────────────────────────┐
          │ Complete pre-installation tasks │
          └──────────────────────────────┘
                         │
                         ▼
          ┌──────────────────────────────┐
          │         Install the AP        │
          └──────────────────────────────┘
                         │
                         ▼
          ┌──────────────────────────────┐
          │         Power the AP          │
          └──────────────────────────────┘
                         │
                         ▼
          ┌──────────────────────────────┐
          │ Connect the AP to the network │
          └──────────────────────────────┘
                         │
                         ▼
          (            End             )
```
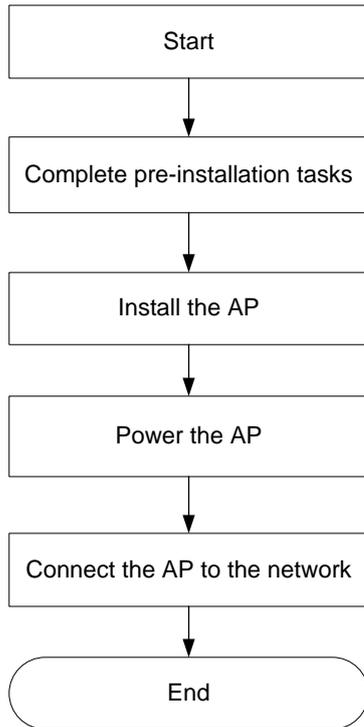
Pre-installation tasks

Before installing the AP, perform the following tasks:

- Power on the AP and connect the AP to the network. Examine the LEDs to verify that the AP is operating correctly. For information about the LEDs, see "LEDs."
- Record the MAC address and serial number of the AP for future use.

Mounting the AP

1. As shown in Figure 2-2, use M4 screws to attach the mounting bracket to an electrical outlet box.

Figure 2-2 Attaching the mounting bracket to an electrical outlet box
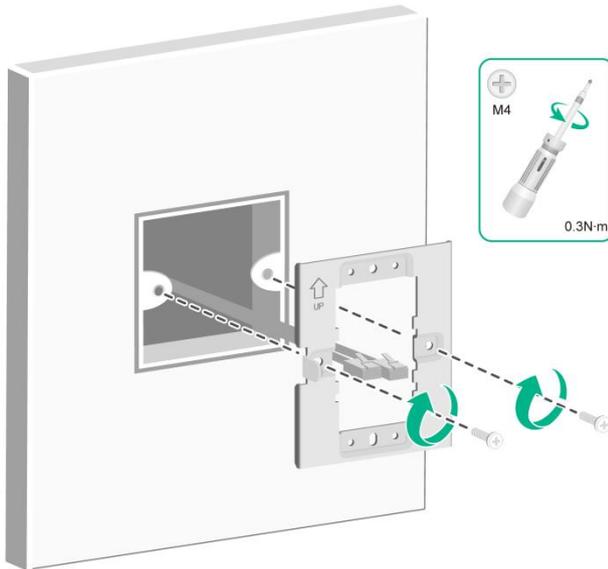
2. As shown in Figure 2-3, connect cables to the pass-through port and uplink/PoE in port on the rear of the AP.

   The pass-through ports on the rear and bottom of the AP are standard RJ-45 ports. You can connect phone cables or Ethernet cables to the pass-through ports as needed.

Figure 2-3 Connecting a cable to the uplink/PoE in port
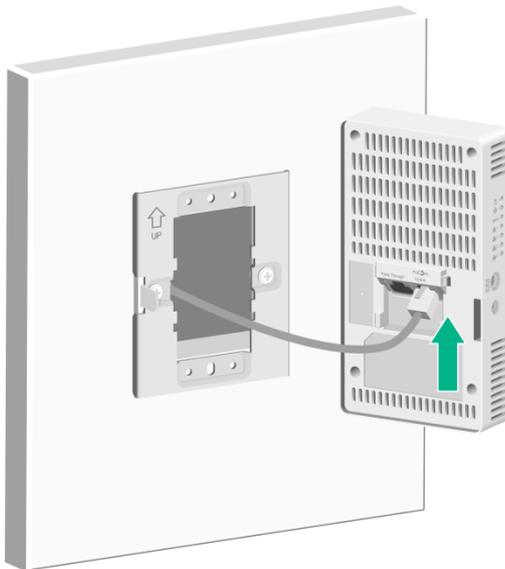
3. Secure the AP to the mounting bracket, as shown in Figure 2-4.

   a. Align the mounting peg on the mounting bracket with the installation slot in the rear of the AP and insert the peg into the slot.

   b. Slide down the AP so that it sits securely on the peg.

   c. Fasten the M3 × 4 screw on the side panel of the AP.

Figure 2-4 Securing the AP to the mounting bracket
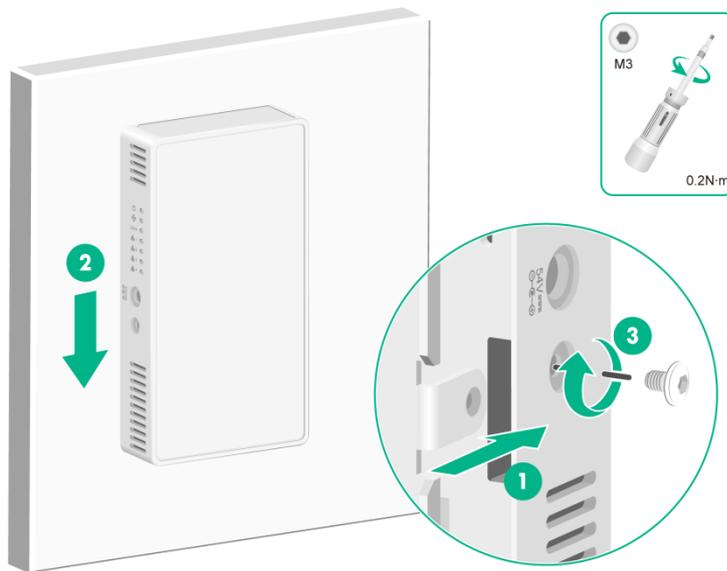
Powering the AP

You can supply power to the AP by using a local power source or through 802.3af/802.at PoE as required. Before powering the AP, make sure the local power source or the power sourcing equipment (PSE) is reliably grounded.

Connecting a PoE power source

To power the AP through PoE, use an Ethernet cable to connect an Ethernet port on a PoE switch to the uplink/PoE in port on the AP.

**Figure 2-5 Powering the AP through PoE**

Connecting a local power source

You can use an AC/DC power adapter to connect the AP to a local power source. No power adapter is provided with the AP. Prepare one yourself as required. Table 2-1 describes the power adapter specifications.

Table 2-1 Power adapter specifications

Item	Specification
Input	100 VAC to 240 VAC
Output	48 VDC to 54 VDC ⊖──ⓒ──⊕
Output power	≥ 16 W

Figure 2-6 Using a power adapter to connect the AP to a local power source
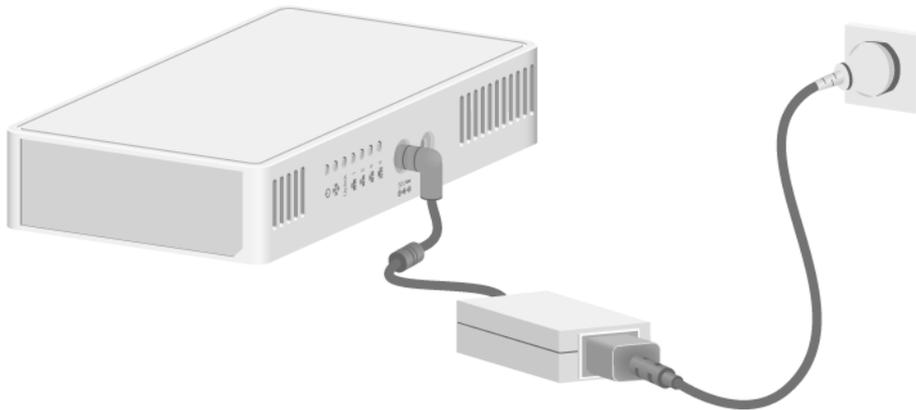
Check after power-on

Examine the LEDs on the AP after you power on it to verify that the AP is operating correctly. For more information about the LEDs, see "LEDs."

Connecting the AP to the network

All AP settings are configured on the AC. To verify network connectivity of the AP, execute the **display wlan ap all** command on the AC. If the AP status is **R/M**, the AP has been connected to the network.

```
<AC> display wlan ap all
Total number of APs: 1
Total number of connected APs: 1
Total number of connected manual APs: 1
Total number of connected auto APs: 0
Total number of connected common APs: 1
Total number of connected WTUs: 0
Total number of inside APs: 0
Maximum supported APs: 3072
Remaining APs: 3071
Total AP licenses: 128
Remaining AP licenses: 127


                    AP information
 State : I = Idle,     J  = Join,      JA = JoinAck,    IL = ImageLoad
       C = Config,    DC = DataCheck,  R  = Run   M = Master,  B = Backup
```
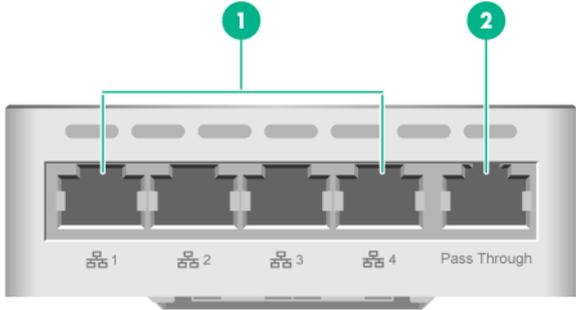
```
AP name              AP ID   State   Model           Serial ID
ap1                  1       R/M     DH-AWA6220-W    219801A3CA8199E00001
```
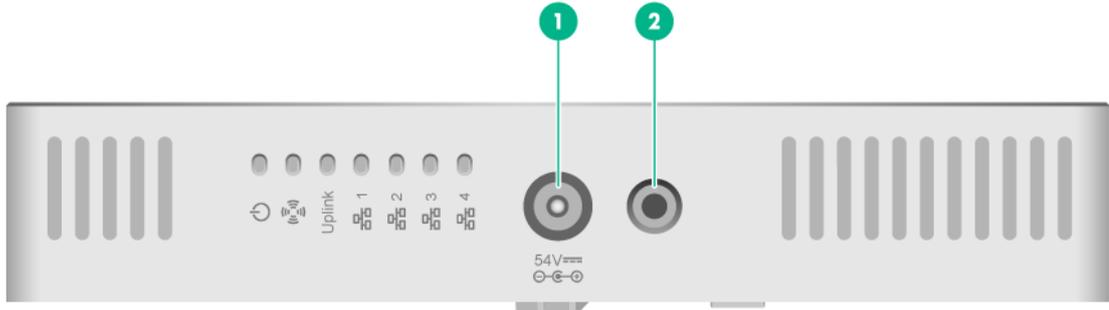
3 Appendix A   Hardware information and specifications
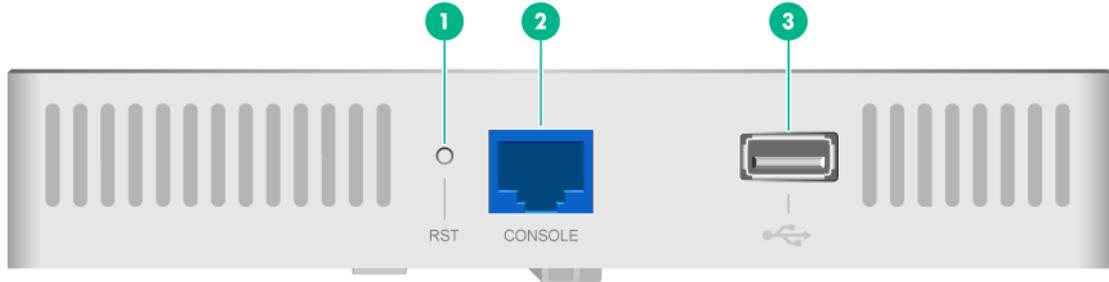
Ports
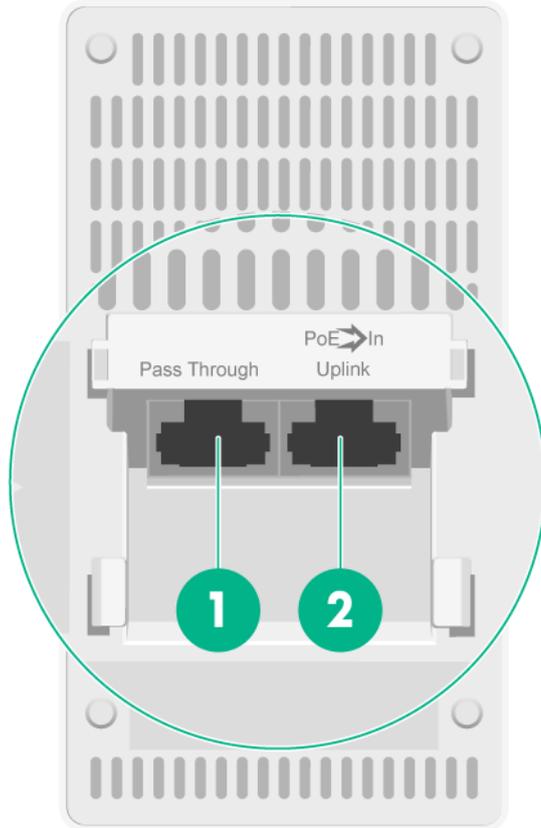
Figure 3-1 Ports on the AP

(1) 10/100/1000M Ethernet copper ports	(2) Pass-through port

(1) Power port	(2) Security screw hole

(1) Reset button (RST)	(2) Console port	(3) USB port

(1) Pass-through port	(2) Uplink/PoE in port

Technical specifications

Table 3-1 Technical specifications

Item	Specification
Dimensions (H × W × D)	30 × 160 × 86 mm (1.18 × 6.30 × 3.39 in)
Weight	0.25 kg (0.55 lb)
Antenna	Internal antennas
Power consumption	• ≤ 12.95 W without a USB device attached • ≤ 15.45 W with a USB device attached
Standards	• IEEE802.11a/b/g/n/ac/ax • IEEE802.3af/at
Console port	Used by technical personnel only for device configuration and management.
10/100/1000M Ethernet copper port (1 to 4)	Represented by interface number GE1/0/2 to GE1/0/5 in the MAP file and GigabitEthernet 2 to GigabitEthernet 5 on the AC.
Uplink/PoE in port (10/100/1000M Ethernet copper port)	Used for connecting the AP to an uplink device for Internet or MAN access. It can also receive PoE power from the uplink device. It is represented by interface number GE1/0/1 in the MAP file and

Item	Specification
	GigabitEthernet 1 on the AC.
Power port (54 V)	Used for receiving +54 VDC power from a local power source.
Pass-through port (2 in total)	Use for connecting a phone cable or RJ-45 cable.
USB port	Used for charging as well as data reading or writing.
Reset button	Functions of the reset button vary by the pressing duration. For more information, see Table 3-3.

LEDs

Figure 3-2 LEDs on the AP
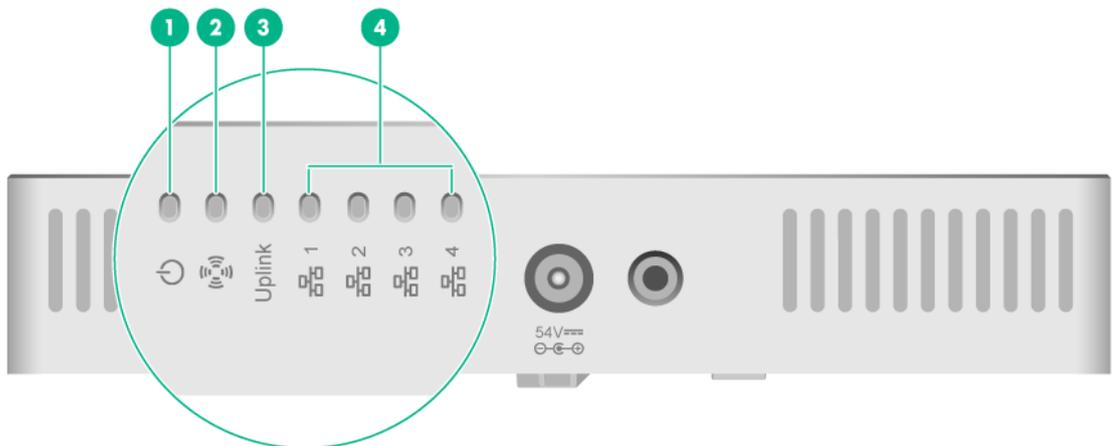
(1) Power status LED	(2) Radio status LED
(3) Uplink port status LED	(4) Ethernet port status LEDs

Table 3-2 LED descriptions

LED	Status	Description
Power status LED	Off	No power is present or the LED has been disabled.
	Steady yellow	The device is initializing or an initialization exception has occurred.
	Flashing yellow at 1 Hz	No radio cards have been detected.
	Flashing yellow at 2 Hz	The Ethernet interfaces are down and no mesh links are established.
	Steady green	The AP has started up and registered to an AC, and is in standby state.
	Flashing green at 0.5 Hz	The AP has started up but has not registered to any AC.
	Flashing green at 2 Hz	The AP is upgrading the image.
Radio status LED	Off	The radios do not have associated clients, or the LED has been turned off from the CLI.
	Flashing green at 1 Hz	Only the 2.4G radio has associated clients.
	Flashing yellow at 1 Hz	Only the 5G radio has associated clients.
	Alternating between green and blue at 1 Hz	Both the 2.4G and 5G radios have associated clients.
Uplink port status LED	Off	No power is present.
	Steady yellow	The port has been auto-negotiated to operate at 10/100 Mbps.
	Flashing yellow	The port is sending or receiving data at 10/100 Mbps.
	Steady green	The port has been auto-negotiated to operate at 1000 Mbps.
	Flashing green	The port is sending or receiving data at 1000 Mbps.
Ethernet port status LED	Off	No link is present on the port.
	Steady yellow	The port has been auto-negotiated to operate at 10/100 Mbps.
	Flashing yellow	The port is sending or receiving data at 10/100 Mbps.
	Steady green	The port has been auto-negotiated to operate at 1000 Mbps.
	Flashing green	The port is sending or receiving data at 1000 Mbps.

Table 3-3 Reset button LED descriptions

LED	Pressing duration (seconds)	Status		Description
Reset button (RESET)	0 to 5	Green	Steady on	Used to reset the AP.
	5 to 20	Green	Flashing at 2 Hz	Used to restore the factory default.