

# ExtremeWireless 802.11ax Wi-Fi 6E Outdoor AP5050D Access Point

## Overview of AP5050D

The AP5050D is a 802.11ax stadium-optimized overhead Wi-Fi 6E outdoor access point. It supports high density of users and devices. The AP5050D access point offers flexible deployment options and can be mounted to a wall or to a pole using the KT-147407-02, KT-150173-01, and MBO-ART03 mounting brackets, thereby ensuring exceptional mobile experience throughout the stadium.

For more information, see *Extreme Wireless 802.11ax Wi-Fi 6E Outdoor AP5050D Access Point Installation Guide*.

## AP5050D Box Contents

Ensure that the following items are available:

Quantity	Item
1	AP5050D access point.
1	Quick Reference Guide.
1	The Hardware Kit hardware bag containing the following hardware components: <ul style="list-style-type: none"> <li>One plastic service panel base.</li> <li>One plastic service panel top with one captive screw.</li> <li>Four 75 mm service panel shoulder screws.</li> </ul>
10	Black gaskets for use with a CAT6 and CAT6A cable. This is packaged as 5 Bags of 2 gaskets for a total of 10 gaskets.

The access point ships with two black gaskets in the box for use with Category 6 (CAT 6) Ethernet cables with a cable diameter from 6.0mm to 9.2mm. This includes unshielded twisted-pair (UTP) Cat 6 cables. Store these gaskets in a safe place if you do not use them right away.

The access point has light-gray gaskets pre-installed in the access point glands. The light-gray gasket handles all CAT 5 and CAT 5E cables, with a cable diameter range from 4.5mm to 6.0mm.

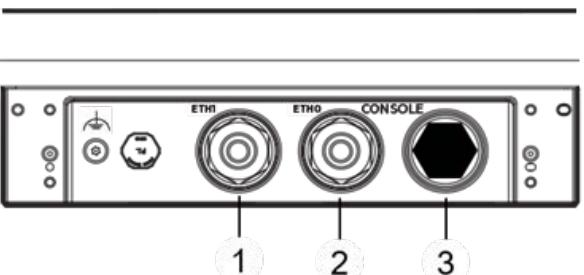
## Features

The AP5050D access point has the following features:

- Radios: 3 radios (2.4GHz, 5.0 GHz, and 6 GHz); 1 IoT Radio (BLE/802.15.4)
- One micro USB console port
  - You can order a micro USB console adapter for the access point using the part number ACC-WIFI-MICRO-USB
- Two Ethernet ports:
  - ETH0 is 1x 100/1000/2500/5000 Mbps auto-negotiation Ethernet port, RJ45 (PoE)
  - ETH1 is 1x 100/1000/2500 Mbps auto-negotiation Ethernet port, RJ45 (PSE)
- Dimensions: 11.3 in. x 18.9 in. x 3.5 in. (288 mm x 481 mm x 88 mm)
- One dual LED
  - For LED activity description, see "Status LED Activity Description"
- 3 mm diameter safety hanger provision
- Power: PoE 802.3at with 4x4x4
  - For complete power profile information, refer to the *ExtremeWireless AP5050D Access Point Installation Guide* at the Extreme Networks Documentation Site.
- Antennas:
  - Two software selectable internal antennas (30 degree and 70 degree directional antennas)
- Temperature:
  - 40°C to +60°C (-40°F to +140°F) operating temperature
  - 40°C to +70°C (-40°F to +158°F) storage temperature
- Enclosure: Radome plastic with an aluminum base.

The service panel can be used on wall or pole mount using the Hardware Kit to protect the Glands or hide them for aesthetics. You need to order the Hardware Kit. This is not required.

Figure 1 AP5050D side ports



Callout	Description
1	ETH1 (PSE) port
2	ETH0 (PoE) port

Callout	Description
3	Console port

## Status LED Activity Description

The access point has one status light on top of the chassis. The status light conveys operational states for system power, firmware updates, Ethernet and wireless interface activity, and major alarms.

### IQ Engine Status LED Activity

- Dark: Power is off.
- Solid white: The device power is on and the access point is ready to use. The device has successfully established a Control And Provisioning of Wireless Access Points (CAPWAP) connection to **ExtremeCloud IQ**, and is operating normally.
- Slow-blinking white: The device has a CAPWAP connection to **ExtremeCloud IQ**, but is operating on 802.3at power instead of 802.3bt power.
- Solid amber: The device power is on and the access point is in boot up mode, or is running without a CAPWAP connection.
- Slow-blinking amber: The device has no CAPWAP connection to **ExtremeCloud IQ**, and is operating on 802.3at power instead of 802.3bt power.
- Fast-blinking amber: The device is updating its IQ Engine firmware.

### ExtremeCloud IQ Controller Status LED Activity

- Dark: Power is off or the LED has been turned off.
- Solid white: The device is booting or already taken over by the controller.
- Slow-blinking white: The device is in the process of being taken over by the controller or has failed to be taken over by the controller.
- Flashing fading white: Configuration pushes down to access point from controller helping an user to locate the access point location using visual inspection.
- Solid amber: The access point is upgrading its firmware.
- Fast-blinking amber: The access point is acquiring DHCP IP.

## Mounting Accessories

AP5050D can be mounted to a wall or to a pole by using a mounting kit that can be purchased separately, which is described in the following table. The following table lists the mounting options available.

Table 1

Mounting bracket	Wall install	Pole install	Notes
KT-147407-02 bracket; comes with three bracket parts	Yes	Yes	1-axis +/-15 degree tilt
KT-150173-01; extension arm; used with KT-147407-02 bracket parts	Yes; place the KT-150173-01 extension arm on top of the 1-axis KT-147407-02 tilt part	Yes; attach the KT-147407-02 pole part to the extension arm	-
MBO-ART03	Yes	Yes, attach the KT-147407-02 pole part to the MBO-ART03	The articulating mounting bracket is paired with the KT-147407-02 bracket for pole installations. For wall installations, the wall must be strong enough to support the access point during inclement weather.

**Note:** The AP5050D access point cannot be installed without the mounting brackets.

**Warning:** When installing the access point on a wall or to a pole, the cable glands must face down.

For complete installation information and installation using other compatible brackets and accessories, refer to the *ExtremeWireless AP5050D Access Point Installation Guide* at the Extreme Networks Documentation Site.

The KT-147407-02 bracket has three parts:

- Flat part with holes on the metal surface
- 1-axis tilt part
- Boxed pole part with step edge

## Available Accessories

The following accessories are available:

Item	Description
ACC-CAT6-LAN-GSKT	A black gasket. For use with a CAT6 and CAT6A cable. The gasket ships with the AP5050D and AP5050U RevAB and later.
ACC-WIFI-MICRO-USB	Micro USB cable Used for troubleshooting issues.
KT-147407-02	A stainless steel mounting kit for mounting access points outdoors.

Item	Description
KT-150173-01	A 12-inch extension arm for pole and wall mounting.
MBO-ART03	An unistrut mounting bracket with 2-axis tilt, +/- 80-degree in 10 degree increments, and variable 7.5", 9" or 10.5 extension.
Hardware Kit (Service Panel)	An aesthetic or protective cover for the AP560/AP5050 glands and other IO.

## Install the AP5050D Access Point on a Wall or a Flat Surface Using the KT-147407-02 Wall Bracket Parts

**Note:** Only qualified professionals must perform the installation procedures.

- Attach the flat part of the KT-147407-02 bracket to the access point using two M6 screws.
- Using the 1-axis tilt bracket as a template, mark and drill four holes on a wall or on a flat surface.
- Attach the 1-axis tilt bracket to a wall or flat surface using four M6 head size screws.
- Align the 1-axis tilt bracket part inside the flat part of the KT-147407-02 bracket, and attach the flat bracket to the 1-axis tilt bracket using four M6 screws.
- Tilt the access point to a desired angle and tighten the four M6 screws to a torque of 45 in-lbs.

**Note:** The 1-axis tilt bracket has +/-15 degrees to -15 degrees of tilt.

## Install the AP5050D Access Point to a Pole Using the KT-147407-02 Bracket Parts

The AP5050D access point can be mounted on a pole using:

- All the KT-147407-02 bracket parts
- KT-147407-02 bracket pole part

## Install the AP5050D Access Point to a Pole Using all the KT-147407-02 Bracket Parts

**Note:** You need to provide your own stainless-steel cable clamps. The band must be 1/2 in. (12.7 mm) wide and should be made of stainless steel.

- Attach the KT-147407-02 flat part to the access point using two M6 screws.
- Align the 1-axis tilt bracket part inside the flat part of the KT-147407-02 bracket, and attach the flat bracket to the 1-axis tilt bracket using four M6 screws.
- Attach the KT-147407-02 pole part to the 1-axis tilt bracket using two M12 bolts through the large bracket holes on the 1-axis tilt bracket and the pole bracket.
- Fasten the bolts using two M12 hex nuts.
- Insert two 0.5 in. stainless-steel cable clamp through the long slots on the pole bracket.
- Position the cable clamps on the pole bracket around a pole and attach the pole bracket.
- Insert the ends of the cable clamps around the pole and tighten the clamp screws to a torque of 11 in-lbs.

## Power or Pressure Washing Guidelines

Ensure that your pressure washing equipment fulfills the following specifications:

- Pressure washer Pounds per Square Inch (PSI) must be less than 4000psi.
- Do not use a nozzle with less than 15-degree washer tip.
- The pressure washing nozzle must be at least 24 in. away from the access point.

**Note:** The best practice is to follow the pressure washing guidelines for longevity of the access point parts.

### Cleaning solution specifications:

- Use only commercially available cleaning agents and solvents to clean the access point.
- Use only commercially available ice-melt products.

**Warning:** Do not use cleaning agents, solvents, and ice-melt products that are flammable, contain polycarbonate or rubber dissolving ingredients, uses refined petrochemical materials, and any other materials that can damage a concrete surface.

**Note:** Do not use the power washing equipment near power lines.

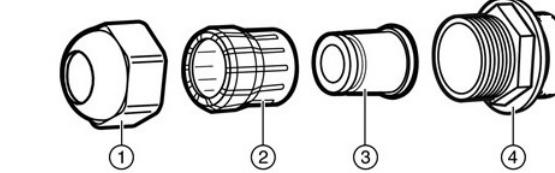
**Note:** Wear safety goggles with complete eye protection when using the power washing equipment.

You can pressure wash the access point and the surface around the access point to remove dirt and debris.

## Connect the ETH1 or ETH0 cable

The ETH1 or ETH0 cable is connected through the ETH1 or ETH0 gland port.

Figure 2 AP5050D Glands



Callout	Description	Callout	Description
1	Gland cap	3	Gland LAN cable gasket
2	Gland cage	4	Gland body - Do not remove the gland body. This is a factory sealed component; do not remove from housing.

**Note:** Ensure that you use the correct gasket for your LAN cable. Option 1: Pre-installed on the access point gland. The gray gasket is for CAT5 and CAT5e cables. It has a cable diameter range of 4.5-6.0mm. Option 2: Included in the box in a plastic bag. The black gasket is for all CAT6, including /UTP cables, and CAT6A cables. It has a cable diameter range of 6.0-9.2mm.

- Attach the ground wire to the access point.
- Remove the ETH0 port gland cap, plastic cage, and gasket.
- Connect the ETH0 cable through the ETH0 gland port until it clicks into place. If there is a ETH1 connection, insert the cable through the ETH1 gland port until it locks into place.
- Slide the plastic cage over the gland and into the gland body, and then secure it with the gland cap.
- Torque the gland cap to 12-in lbs.

## Regulatory and Compliance Information

### Safety Guidelines

This section contains notices that are intended to protect your personal safety and prevent damage to the equipment.

#### Qualified Personnel:

**Electrical Hazard:** Only qualified personnel must perform installation procedures. Within the context of the safety notes in this documentation, qualified persons are defined as persons who are authorized to commission, ground, and label devices, systems, and circuits in accordance with established safety practices and standards. A qualified person understands the requirements and risks involved with installing electrical equipment in accordance with national codes.

#### Federal Communications Commission (FCC) Notice

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 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.

 For 5925-6425 MHz and 6525-6875 MHz transmitter operation in Standard power access point mode:
 

- The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft.
- Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control or communications with unmanned aircraft systems.

**Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies

