

ExtremeMobility 802.11ax/ac/abgn Outdoor AP560t Access Point

Overview of AP560t

The AP560t is an overhead access point bundle that consists of the AP560h access point, the MBO-ART02 articulating mounting bracket, and the WS-MBO-POLE01 mounting bracket.

The AP560h is a stadium-optimized Wi-Fi 6, 802.11ax/ac/abgn outdoor access point. The AP560h access point caters to the stadium environment by supporting high density of users and devices.

The AP560h access point offers flexible deployment options and can be mounted to a pole and to a wall, thereby ensuring exceptional mobile experience throughout the stadium.

Note: The AP560h requires a minimum base firmware of WiNG 71.2.

Features

The AP560h access point has the following features:

- Radios: 2 radios (1 dual-band, 2.4GHz and 5GHz, and 1 band-locked 5GHz); 1 IoT Radio (2.4 GHz)
- Two Ethernet ports:
 - 1 x 100/1000/2500/5000 Mbps auto-negotiation Ethernet port, RJ45
 - 1 x 10/100/1000 Mbps auto-negotiation Ethernet port, RJ45
- Dimensions: 11.3" x 18.9" x 3.5" (288 mm x 481 mm x 88 mm)
- LEDs: Two top-mounted LEDs
 - All LEDs will be on during reset.
- Security locks:
 - One Kensington lock
 - One security hangar lock
- Power: PoE 802.3at
- Antennas:
 - Two software selectable internal antennas (30 and 70 degree directional antennas)
- Temperature:
 - -40°F to +131°F (-40°C to +55°C) operating temperature
 - -40°F to +158°F (-40°C to +70°C) storage temperature
- Enclosure: Plastic only

Figure 1 Front view of AP560h

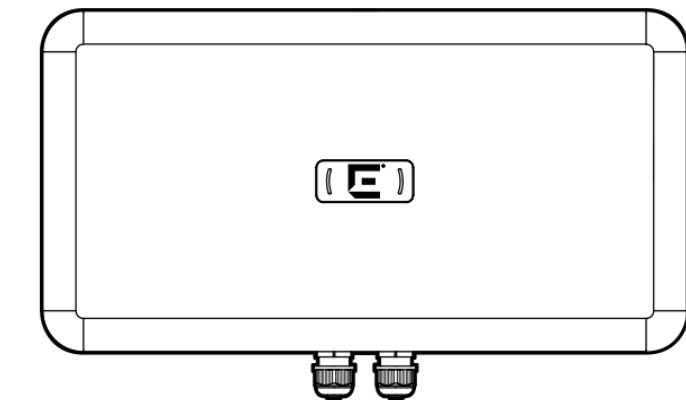
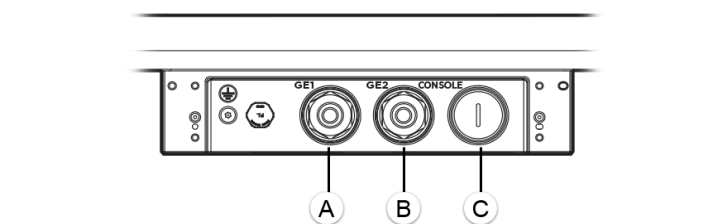


Figure 2 Side ports on AP560h



Label	Description
A	GE1 port
B	GE2 port
C	Console port

Ordering Information

Table 1 AP560t Ordering Information

Part Number	Description
AP560t-FCC	Cloud-ready, Dual 5GHz, Dual-band, Sensor radio, Dual Radio 802.11ax/ac/abgn, 4x4:4 MIMO Outdoor 11ax access point. Internal 30deg/70deg Panel Antenna, Mounting Kit (WS-MBO-POLE01, MBO-ART02), and plastic service panel base and top (EIO-03-SP). Domain: US

AP560t Access Point Bundle

AP560t access point is purchased as an overhead access point bundle along with the mounting brackets. The following table provides the details:

Table 2 AP560t Ordering Information

Part Number	Overhead Access Point Bundle	Description
AP560t-FCC	<ul style="list-style-type: none"> • AP560h-FCC Access Point • 30520 (WS-MBO-POLE01) Bracket • MBO-ART02 articulating mounting bracket • EIO-03-SP; Plastic service panel base and top • Four 75 mm service panel shoulder screws 	Cloud-ready, Dual 5GHz, Dual-band, Sensor radio, Dual Radio 802.11ax/ac/abgn, 4x4:4 MIMO Outdoor 11ax access point. Internal 30deg/70deg Panel Antenna and Mounting Kit Domain: US

Verifying the AP560t Box Contents

Verify the contents of the box and ensure that the following items are available:

Table 3 Contents of the AP560t Box

Quantity	Item
AP560h box containing:	
1	One AP560h Quick Reference
1	One Cloud Quick Start Card
1	One AP560h access point
1	Two M6 hex-head screws to attach the MBO-ART02 articulating mounting bracket to the AP560h access point
1	MBO-ART02 articulating mounting bracket
4	M6 hex-head screws to attach the MBO-ART02 articulating mounting bracket to a wall
1	WS-MBO-POLE01 mounting bracket
4	M3 screws with nuts and washers to attach the WS-MBO-POLE01 bracket to the MBO-ART02 articulating mounting bracket
1	Plastic service panel base
1	Plastic service panel top with one captive screw
4	75 mm long service panel shoulder screws

Mounting Options

AP560h can be mounted to a wall or to a pole by using the mounting kit provided with the AP560h access point, which are described in the following table.

Table 4 AP560t Mounting Brackets Usage

Mounting Bracket and Part Number	Wall Install	Pole Install	Notes
WS-MBO-POLE01 (#30520); Bracket; also known as the outdoor pole mounting bracket	No	Yes	If the pole diameter is <= 1" (25.4mm), use small cable clamp. If the pole diameter is between 5" - 7" (127mm), use large cable clamp. For any other pole diameter, provide your own stainless steel cable clamp. The band must be 1/2" (12.7mm) wide. The POLE01 bracket can be used only when paired with the MBO-ART02 bracket.

Mounting Bracket and Part Number	Wall Install	Pole Install	Notes
MBO-ART02; 10" 2-Axis articulating mounting bracket	Yes	Yes	The articulating mounting bracket is used with POLE01 bracket for pole install. The wall must be strong enough to support the access point during inclement weather.

Note: The AP560h cannot be installed without the mounting brackets.

Installing the AP560h access point on a wall using the MBO-ART02 articulating mounting bracket

Note: Only qualified professionals must perform the installation procedures.

Note: During all installation methods, the glands on the AP560h must be pointing down.

The following hardware is required to install the AP560h access point on a wall:

Table 5 Hardware requirements for wall installation

Quantity	Item
1	AP560h access point
1	MBO-ART02 articulating mounting bracket
6	Two M6 hex-head screws to attach the MBO-ART02 to the AP560h access point Four M6 hex-head screws to attach the MBO-ART02 bracket to the wall

Installing the AP560h access point on a wall:

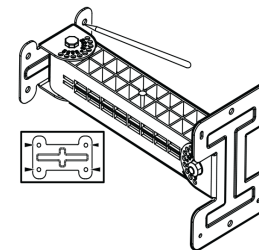


Warning: When using the MBO-ART02 articulating mounting bracket with the AP560h access point, set the MBO-ART02 bracket's minimum downward tilt to less than 20 degrees to prevent water ingress. If you keep the tilt to more than 20 degrees, a service panel (EIO-03-SP) must be installed to protect the glands on the AP560h access point.

For installation instructions on how to install the service panel, see "Installing the plastic service panels (EIO-03-SP) on the AP560h access point" on page 2.

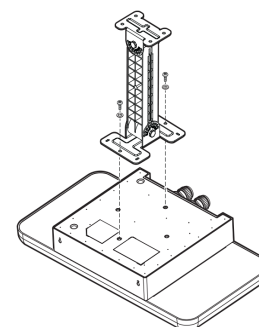
- 1 Using the MBO-ART02 articulating mounting bracket's shorter bracket end as a template, mark and drill four holes on the wall.

Figure 3 MBO-ART02 bracket template for attachment holes



- 2 Attach the MBO-ART02 to the AP560h access point using two M6 hex-head screws. Use the mounting holes shown in the figure below to mount the MBO-ART02 bracket onto the AP560h access point.

Figure 4 Attaching the MBO-ART02 bracket to the AP560h access point



- 3 Align the mounting holes on the MBO-ART02 articulating mounting bracket against the holes on the wall and attach the bracket using four M6 hex-head screws.

Installing the AP560h access point to a pole using the MBO-ART02 articulating mounting bracket and the WS-MBO-POLE01 bracket

The following hardware is required to install the AP560h access point to a pole:

Table 6 Hardware requirements for wall installation

Quantity	Item
1	AP560h access point
1	MBO-ART02 articulating mounting bracket
2	M6 hex-head screws to attach the MBO-ART02 to the AP560h access point
1	WS-MBO-POLE01 bracket
4	M3 screws with nuts and washers to attach the WS-MBO-POLE01 bracket to the MBO-ART02 articulating mounting bracket
2	Cable clamps

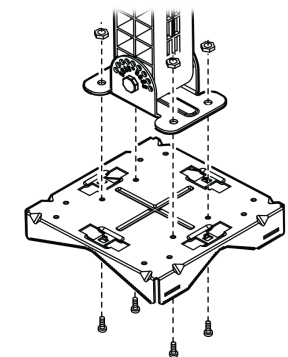


Note: You need to provide your own stainless-steel cable clamps. The band must be 1/2" (12.7 mm) wide.

Installing the AP560h access point to a pole using the MBO-ART02 articulating bracket and the WS-MBO-POLE01 bracket:

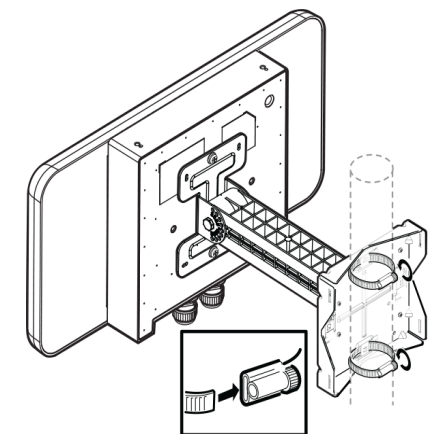
- 1 Attach the MBO-ART02 articulating mounting bracket to the AP560h access point using two M6 hex-head screws (Figure 4).
- 2 Attach the WS-MBO-POLE01 bracket to the MBO-ART02 articulating mounting bracket using four M3 screws, nuts, and washers.

Figure 5 Attaching the WS-MBO-POLE01 bracket to the MBO-ART02 articulating mounting bracket



- 3 Attach both the cable clamps to the WS-MBO-POLE01 bracket. Open the cable clamp by turning a flat bladed screwdriver counterclockwise. Then insert the non-clamp end into the pole bracket through the holes.
- 4 Put the metal band around the pole and attach the WS-MBO-POLE01 bracket to the pole.

Figure 6 Attaching the cable clamps to the pole



- 5 Tighten the cable clamp screw clockwise, tightening the band around the pole.

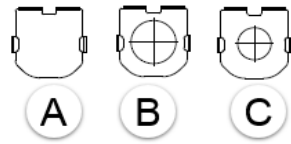
Connecting the GE1 or GE2 cable

The GE1 or GE2 cable can be connected through the front or the rear hole on the side of the service panel base.

The following hardware is required to attach the GE1 or GE2 cable through the rear hole of the service panel base:

- GE1 or GE2 cable
- One blank conduit cover to cover the front hole on the side of the service panel base
- One 1" or 3/4" conduit cover, depending on the circumference of the GE1 or GE2 cable
- Service panel base
- Service panel top

Figure 7 Metal conduit covers



Label	Description
A	Blank conduit cover to cover the front hole on the side of the service panel base
B	1" conduit cover
C	3/4" conduit cover

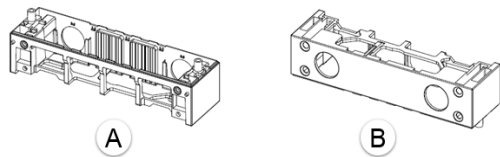
- 1 Using the blank conduit cover, cover the front hole of the service panel base.
 - 2 Attach either the 1" conduit cover or the 3/4" conduit cover to the rear hole of the service panel base.
 - 3 Bring in the GE1 or GE2 cable, and the ground wire through the rear side hole of the service panel base.
 - 4 Loosely align the service panel base next to the metal sloping bracket, thereby leaving enough space to attach the GE1 or GE2 cable to the access point.
 - 5 Attach the ground wire to the AP560h access point.
 - 6 Remove the gland cap, plastic cage, and the gasket from the GE1 port.
 - 7 Connect the GE1 LAN cable through the GE1 gland port until it clicks into place in to the GE1 port.
- If there is a GE2 connection, insert the cable through the GE2 gland until it locks into place in to the GE2 port.
- 8 Torque the gland cap to 10-in lbs.

Installing the plastic service panels (EIO-03-SP) on the AP560h access point

After mounting the AP560h access point on a wall or on a pole, attach the plastic service panels to the access point to protect the glands.

- 1 Attach the plastic service panel base to the AP560h access point using four, 75 mm service panel shoulder screws.

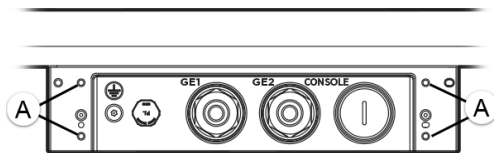
Figure 8 Plastic service panel base



Label	Description
A	Plastic service panel base
B	Side view of plastic service panel base

- 2 Torque the screws to 13 in-lbs.

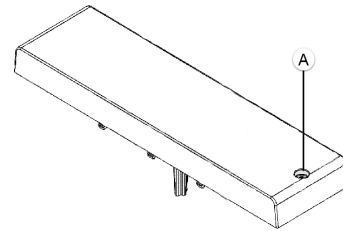
Figure 9 Plastic service panel base attachment holes on AP560h access point



Label	Description
A	Plastic service panel base attachment holes on AP560h access point

- 3 Place the service panel top over the service panel base and lock it into place using the captive screw on the service panel top.

Figure 10 Plastic service panel top



Label	Description
A	Plastic service panel top captive screw

- 4 Tighten the captive screw to 4.5 in-lbs by hand.

Professional Installation Instruction

Installation personal

This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

Installation location

The product shall be installed at a location where the radiating antenna can be kept 36 cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

External antenna

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC/IC limit and is prohibited.

Installation procedure

Please refer to user's manual for the detail.

Warning: Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

Instructions d'installation professionnelle

Installation

Ce produit est destiné à un usage spécifique et doit être installé par un personnel qualifié maîtrisant les radiofréquences et les règles s'y rapportant. L'installation et les réglages ne doivent pas être modifiés par l'utilisateur final.

Emplacement d'installation

En usage normal, afin de respecter les exigences réglementaires concernant l'exposition aux radiofréquences, ce produit doit être installé de façon à respecter une distance de 36 cm entre l'antenne émettrice et les personnes.

Antenne externe

Utiliser uniquement les antennes approuvées par le fabricant. L'utilisation d'autres antennes peut conduire à un niveau de rayonnement essentiel ou non essentiel dépassant les niveaux limites définis par FCC/IC, ce qui est interdit.

Procédure d'installation

Consulter le manuel d'utilisation.

Warning: Avertissement: Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne dépasse pas les limites en vigueur. La violation de cette règle peut conduire à de sérieuses pénalités fédérales.

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 should 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.



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 with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.



Warning: FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 26 cm between the radiator and your body.

European Waste Electrical and Electronic Equipment (WEEE) Notice



In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

- 1 The symbol above indicates that separate collection of electrical and electronic equipment is required.
- 2 When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
- 3 It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
- 4 It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated.

For information about the available collection system, please contact Extreme Environmental Compliance at Green@extremenetworks.com.

Notice

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