Juniper NETWORKS AP64 802.11ax WiFi6E 2+2+2 Access Point Installation Guide

Contents

Juniper NETWORKS AP64 802.11ax WiFi6E 2+2+2 Access Point

Product Information

Technical Specifications:

- **Power options:** 802.3at/802.3bt PoE
- **Dimensions:** 215mm x 215mm x 64mm (8.46in x 8.46in x 2.52in)
- **Weight:** N/A
- **Operating temperature:** N/A
- **Operating humidity:** N/A
- **Operating altitude:** Up to 3,048m (10,000 ft)
- **Electromagnetic emissions:** FCC Part 15 Class B
- **I/O:** ETH0/PoE IN – 100/1000/2500/5000BASE-T RJ45 interface that supports 802.3at/802.3bt PoE PD
- **RF:** N/A
- **Maximum PHY rate:** N/A
- **Indicators:** Multi-color status LED
- **Safety standards:** CSA 62368-1 CAN/CSA-C22.2 No. 62368-1-19 ICES-003:2020 Issue 7, Class B (Canada)

Warranty Information

The AP64 family of Access Points comes with a one-year limited warranty.

Included in the Box

- AP64

- APOUTBR-FM2
- RJ45 cable gland

Ordering Information

Access Points:

- AP64-US
- AP64-WW

Mounting bracket included in the box:

- APOUTBR-FM2 – Flush mount bracket for Outdoor AP

Optional accessory bracket:

- APOUTBR-ART2 – Articulating mount for Outdoor AP

Power Supply options: 802.3at or 802.3bt PoE power

Regulatory Compliance Information

If you need further assistance with purchasing the power source, please contact Juniper Networks, Inc.

FCC Requirement for Operation in the United States of America:

FCC Part 15.247, 15.407, 15.107, and 15.109
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.
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

Product Usage Instructions

AP64 Mounting

Flush Mount Bracket

To mount the AP64 using the flush mount bracket:

1. Choose a suitable location for the AP64 installation.
2. Attach the flush mount bracket to the desired surface using appropriate screws or bolts.
3. Securely mount the AP64 onto the flush mount bracket.

Articulating Mount Bracket

To mount the AP64 using the articulating mount bracket:

1. Choose a suitable location for the AP64 installation.
2. Attach the articulating mount bracket to the desired surface using appropriate screws or bolts.
3. Adjust the articulating mount bracket to the desired angle and securely tighten the screws or bolts.
4. Mount the AP64 onto the articulating mount bracket.

AP64 Hardware Installation

To install the AP64 hardware, follow these steps:

1. Ensure that the AP64 is powered off and disconnected from the power source.
2. Connect the Ethernet cable to the ETH0/PoE IN port on the AP64.
3. If using PoE, connect the other end of the Ethernet cable to a PoE switch or injector that supports 802.3at/802.3bt PoE.
4. If not using PoE, connect the other end of the Ethernet cable to a power source that provides the necessary power requirements.
5. If required, connect the grounding wire to an Earth ground using wire that is 8AWG or larger diameter.

AP64 Software Configuration

Once the hardware installation is complete, follow these steps to configure the AP64:

1. Access the AP64 administration interface by entering its IP address in a web browser.
2. Log in using the appropriate credentials.
3. Configure the wireless network settings, including SSID, security options, and channel settings.
4. Save the configuration and apply the changes.

AP64 Troubleshooting

If you encounter any issues with the AP64, refer to the troubleshooting section of the user manual or contact Juniper Networks, Inc. for further assistance.

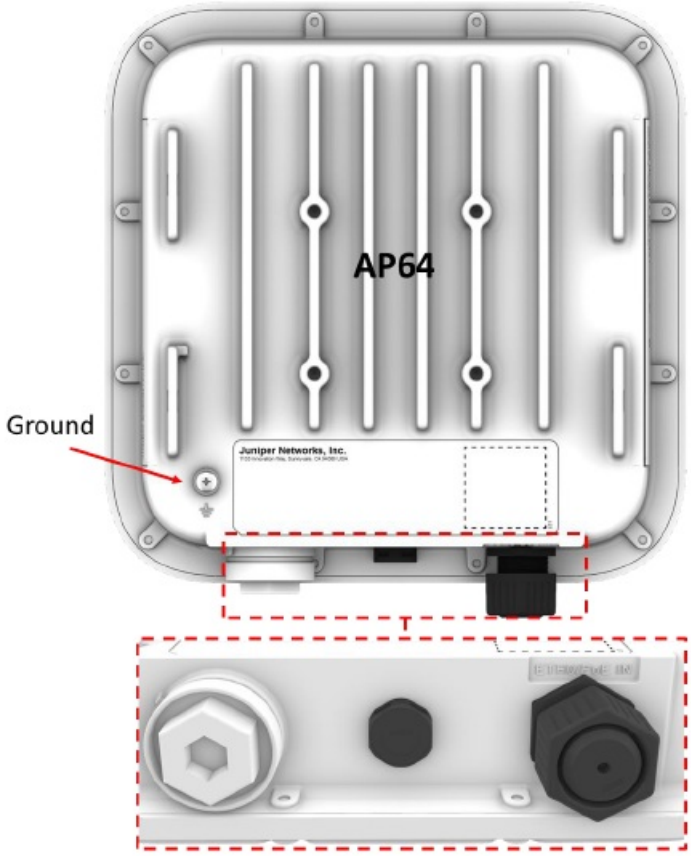
FAQ

- Q: What power options are available for the AP64?
  A: The AP64 supports 802.3at/802.3bt PoE power.
- Q: What is the warranty period for the AP64?
  A: The AP64 comes with a one-year limited warranty.
- Q: What is included in the box when purchasing the AP64?
  A: The AP64 package includes the AP64 Access Point, APOUTBR-FM2 flush mount bracket, and an RJ45 cable gland.
- Q: Where can I get further assistance with purchasing the power source?
  A: For further assistance with purchasing the power source, please contact Juniper Networks, Inc.

Overview

The AP64 contains three IEEE 802.11ax radios that deliver 2×2 MIMO with two spatial streams when operating in multi-user (MU) or single-user (SU) mode. The AP64 can operate simultaneously in the 6GHz band, 5GHz band, and 2.4GHz band or two bands and a dedicated tri-band scan radio.

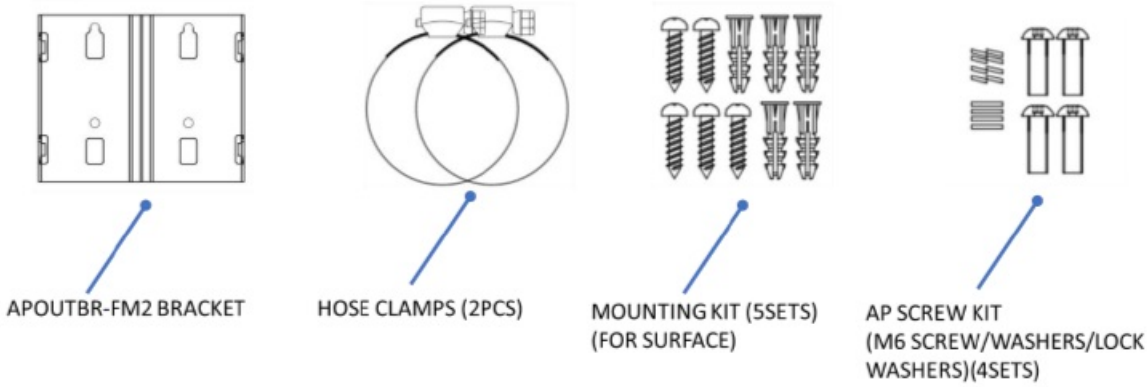
I/O ports



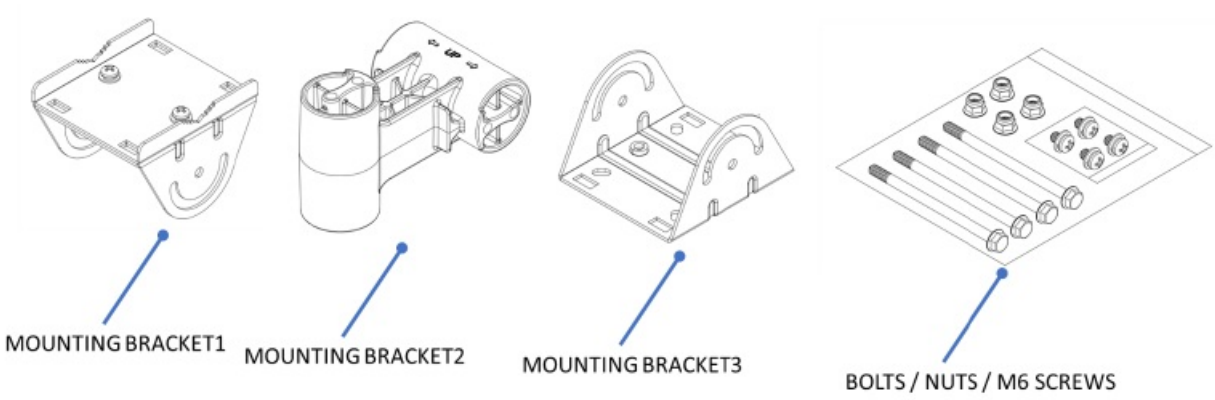
ETH0/PoE IN
100/1000/2500/5000BASE-T RJ45 interface that supports 802.3at/802.3bt PoE PD

Ground should be connected to an Earth ground using wire that is 8AWG or larger diameter

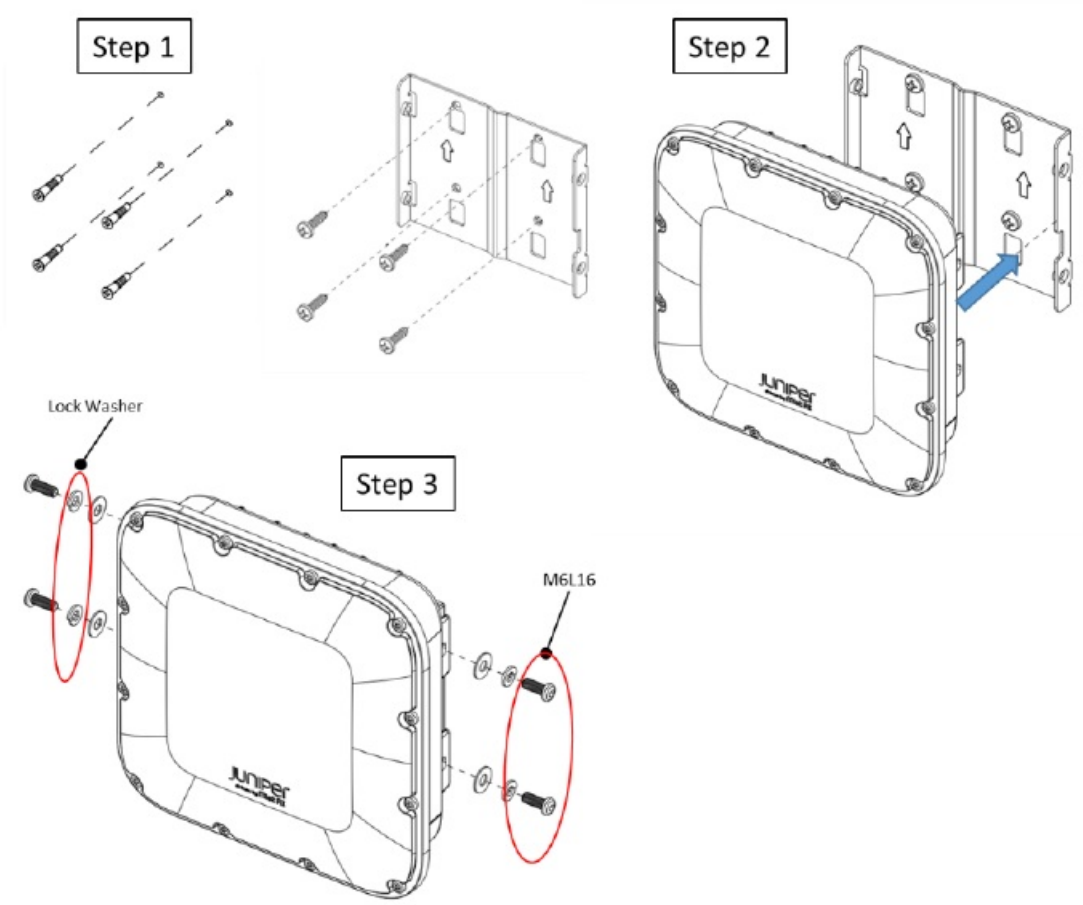
AP64 Mounting Flush Mount Bracket



Articulating Mount Bracket



Flush Mount to Surface



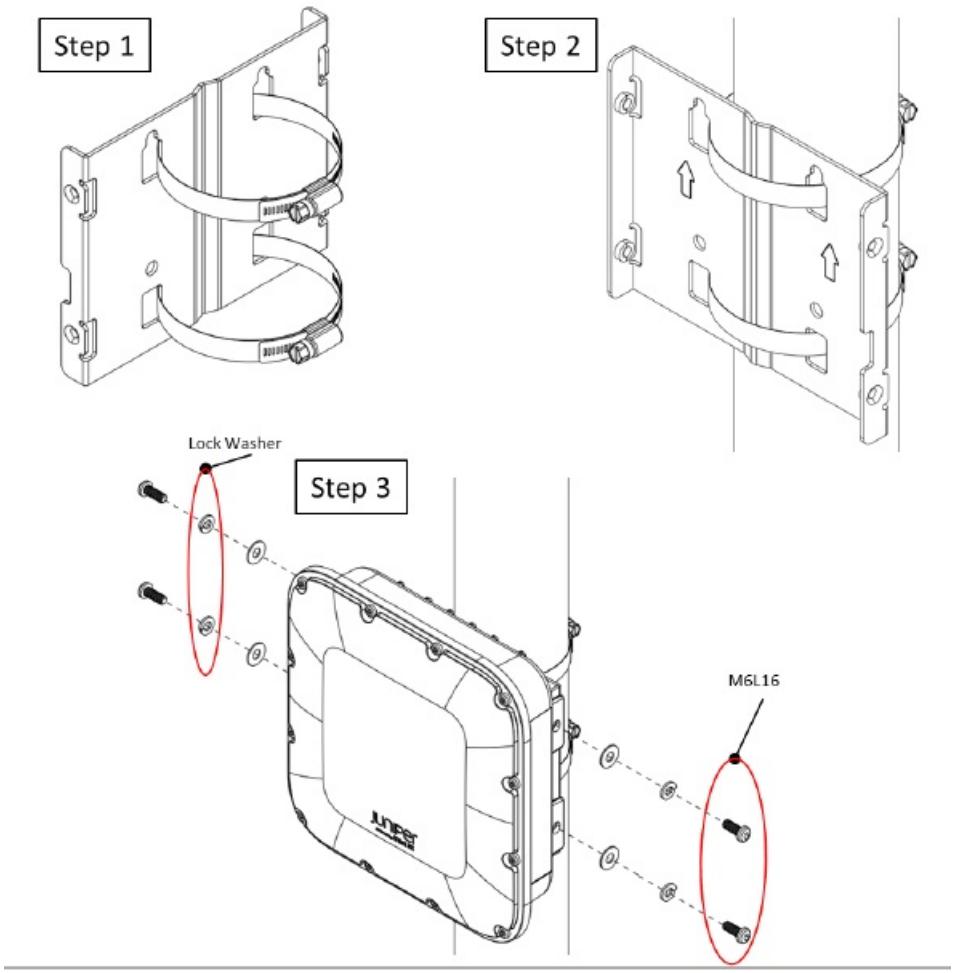
- Step 1.

  Drill 4 holes into the surface. Insert anchors if appropriate. Insert the 2 upper screws and tighten halfway into the surface. Install the APOUTBR-FM2 onto the surface and tighten the 4 screws to the surface.
- Step2.

  Install the AP64 onto t he APOUTBR-FM2.
- Step3.

  Attach the AP64 to the APOUTBR-FM2 using the provided screws and washers.

Flush Mount to Pole



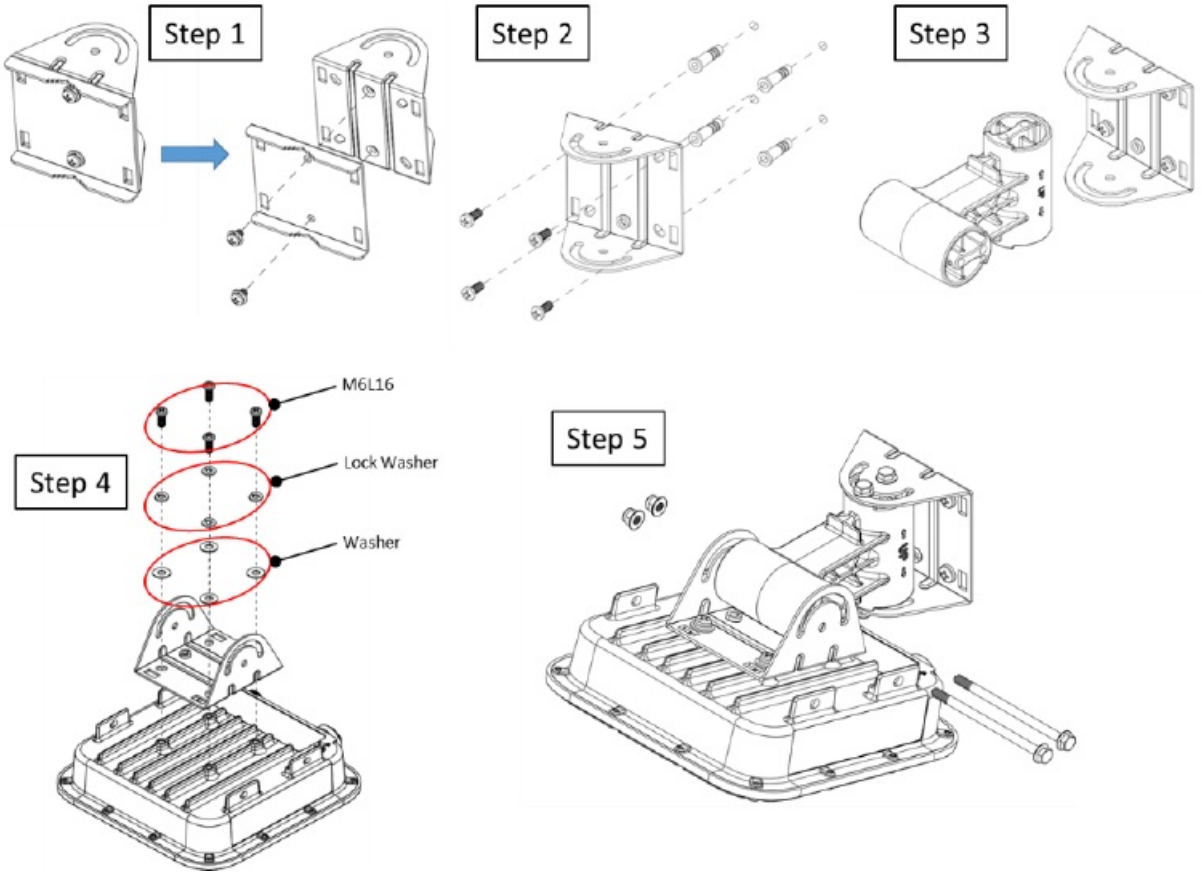
- Step 1

  Assemble the hose clamp onto the APOUTBR-FM2.
- Step 2

  Secure the APOUTBR-FM2 to the pole by tightening the hose clamp.
- Step 3

  Attach the AP64 to the APOUTBRFM2 using the provided screws and washers.

Articulating Mount to Surface



- Step 1

  Disassemble APOUTBR-ART2 Mounting Bracketl.
- Step 2

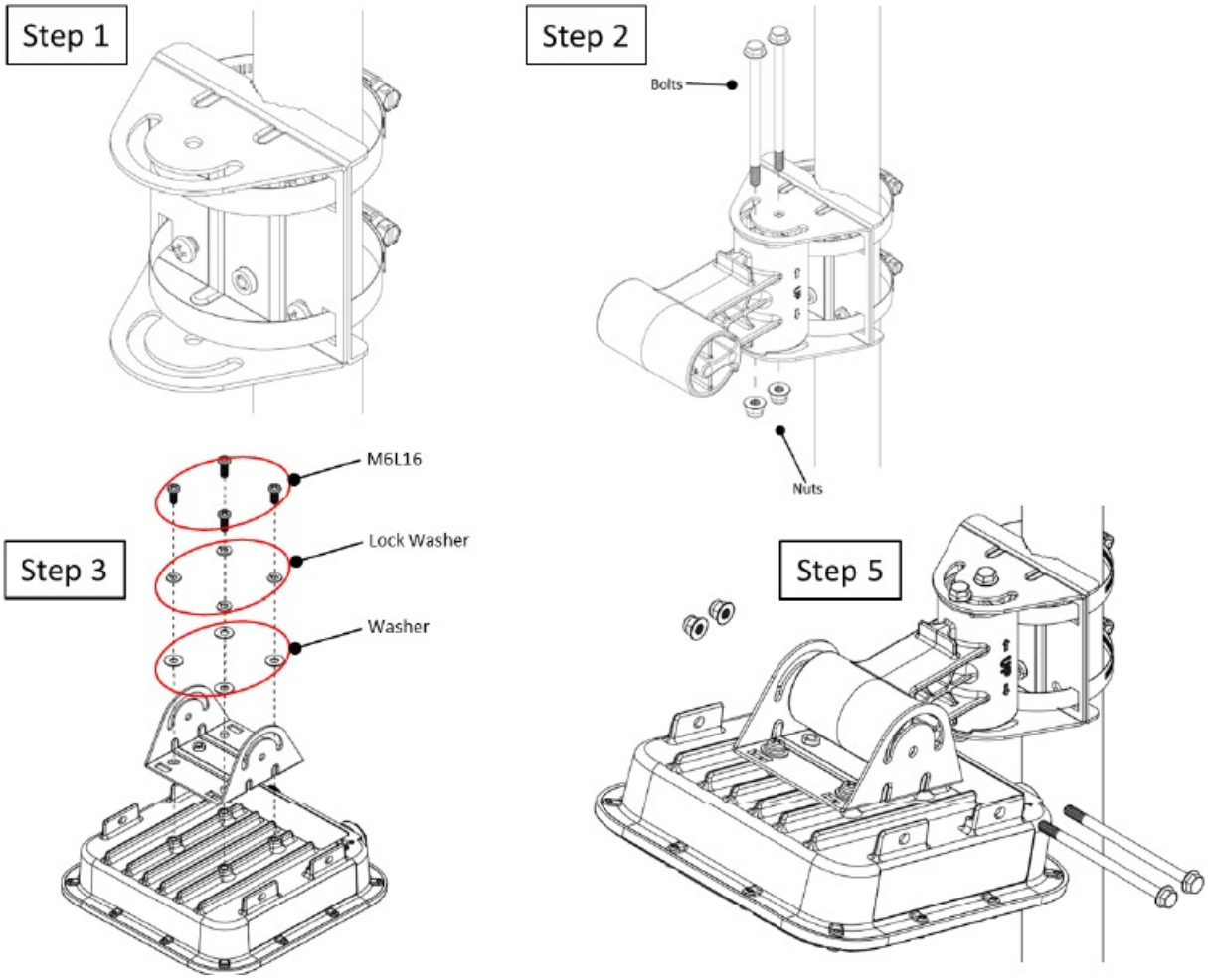
  Inst all APOUTBR-ART2 Mounting brackets to the surface.
- Step 3

  Assemble APOUTBR-ART2 Mounting Bracket2 to Bracketl. Attach the side with “~ UP ➔” to Bracketl.
- Step 4

  Inst all the APOUTBR-ART2 Mounting brackets to the AP64.
- Step 5

  Assemble the AP64 with Bracket 3 to the Bracket 2 using the long screws and nuts.

Articulating Mount to Pole



- Step 1

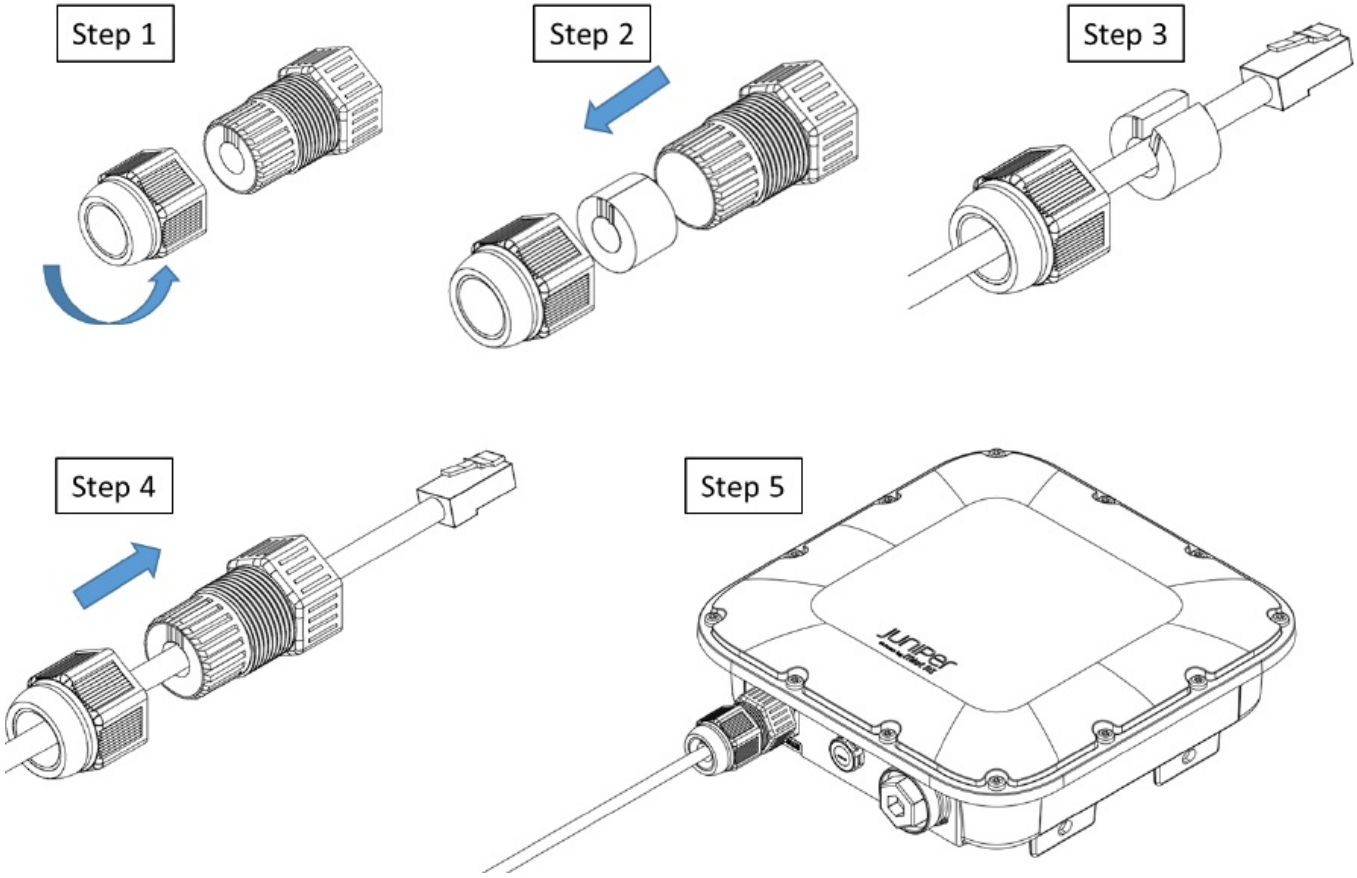
  Install the APOUTBR-ART2 Mounting bracket to the pole using the hose clamps.
- Step 2

  Assemble APOUTBR-ART2 Mounting Bracket2 to Bracketl. Attach the side with “~UP ➔” to Bracketl.
- Step 3

  Install the APOUTBR-ART2 Mounting Bracket3 to the AP64.
- Step 4

  Assemble the AP64 with Bracket3 to Bracket2 using the long screws and nuts.

Connecting RJ45 Cable Gland



- Step 1.
  Disassem ble cable gland
- Step 2.
  Remove the blue seal from the cable gland. Select the proper seal: Blue seal diameter is 7mm – 9.5mm Red seal diameter is 5.5mm – 7mm
- Step 3.
  Open the seal, squeeze where you see the 2 lines, and insert the Ethernet cable through the nut and seal
- Step4.
  Push Ethernet ca ble thru the gla nd . Push the seal into the gland and loosely tighten the nut
- Step 5.
  Connect t he RJ45, t ighten the cable gland to the AP64 meeting a torque spec of 10-12kg-cm, and full y t ighten the nut to the cable gland meeting a torque spec of 7-l0kg-cm

Technical Specifications

Feature	Description
Power options	802.3at/802.3bt PoE
Dimensions	215mm x 215mm x 64mm (8.46in x 8.46in x 2.52in)
Weight	AP64: 1.50 kg (3.31 lbs)
Operating temperature	AP64: -40° to 65° C without solar loading AP64: -40° to 55° C with solar loading
Operating humidity	10% to 90% maximum relative humidity, non-condensing
Operating altitude	3,048m (10,000 ft)
Electromagnetic emissions	FCC Part 15 Class B
I/O	1 – 100/1000/2500BASE-T auto-sensing RJ-45 with PoE
RF	2.4GHz or 6GHz – 2×2:2SS 802.11ax MU-MIMO & SU-MIMO 5GHz – 2×2:2SS 802.11ax MU-MIMO & SU-MIMO 1×1: 1SS 802.11ax 2.4GHz/5GHz/6GHz scan 2.4GHz BLE with Antenna Zigbee: 802.15.4 Thread: 802.15.4
Maximum PHY rate	Total maximum PHY rate – 3600 Mbps 6GHz – 2400 Mbps 5GHz – 1200 Mbps 2.4GHz – 600 Mbps
Indicators	Multi-color status LED
Safety standards	CSA 62368-1 CAN/CSA-C22.2 No. 62368-1-19 ICES-003:2020 Issue 7, Class B (Canada)

Warranty Information

The AP64 family of Access Points comes with a one-year limited warranty.

Included in the box:

1. AP64
2. APOUTBR-FM2
3. RJ45 cable gland

Ordering Information:

Access Points:

AP64-US	802.11ax WiFi6E 2+2+2 Outdoor AP – Internal Antenna for the US Regulatory domain
AP64-WW	802.11ax WiFi6E 2+2+2 Outdoor AP – Internal Antenna for the WW Regulatory domain

Mounting bracket included in the box

APOUTBR-FM2	Flush mount bracket for Outdoor AP

Optional accessory bracket

APOUTBR-ART2	Articulating mount for Outdoor AP

Power Supply options:
802.3at or 802.3bt PoE power

Regulatory Compliance Information

If you need further assistance with purchasing the power source, please contact Juniper Networks, Inc.

FCC Requirement for Operation in the United States of America:

FCC Part 15.247, 15.407, 15.107, and 15.109

FCC Guideline for Human Exposure
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance between the radiator & your body; AP64 – 20cm 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 equipment has been tested and found to comply with the limits for a Class B digital device, under 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 by 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.

FCC 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 transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- The 5.925 ~ 7.125GHz operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.
- Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or Communications with unmanned aircraft systems.

Industry Canada

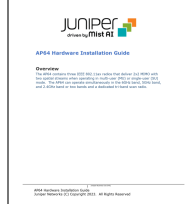
This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IC Caution

1. The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
2. The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and
3. Operation on oil platforms, cars, trains, boats and aircraft shall be prohibited except for on large aircraft flying above 10,000 ft.
4. Devices shall not be used for control of or communications with unmanned aircraft systems.
5. The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
6. The transmitter module may not be co-located with any other transmitter or antenna.

Radiation Exposure Statement:
This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm (AP64) between the radiator & your body.

Documents / Resources

	**Juniper NETWORKS AP64 802.11ax WiFi6E 2+2+2 Access Point** [pdf] Installation Guide 2AHBN-AP64, 2AHBNAP64, AP64 802.11ax WiFi6E 2 2 2 Access Point, WiFi6E 2 2 2 Access Point, 2 2 2 Access Point, Access Point, Point

References

- **User Manual**