



## AP21 Hardware Installation Guide

### Overview

The Mist AP21 is a high value, Enterprise-grade Access Point for 802.11ac Wave 2 Gigabit WiFi Mobility & Assurance Services and Bluetooth Low Energy Location services for delivering BLE Engagement and Asset Visibility Services.

## Understanding the Product

Included in the box:

- AP21
- Mounting bracket with mounting hardware

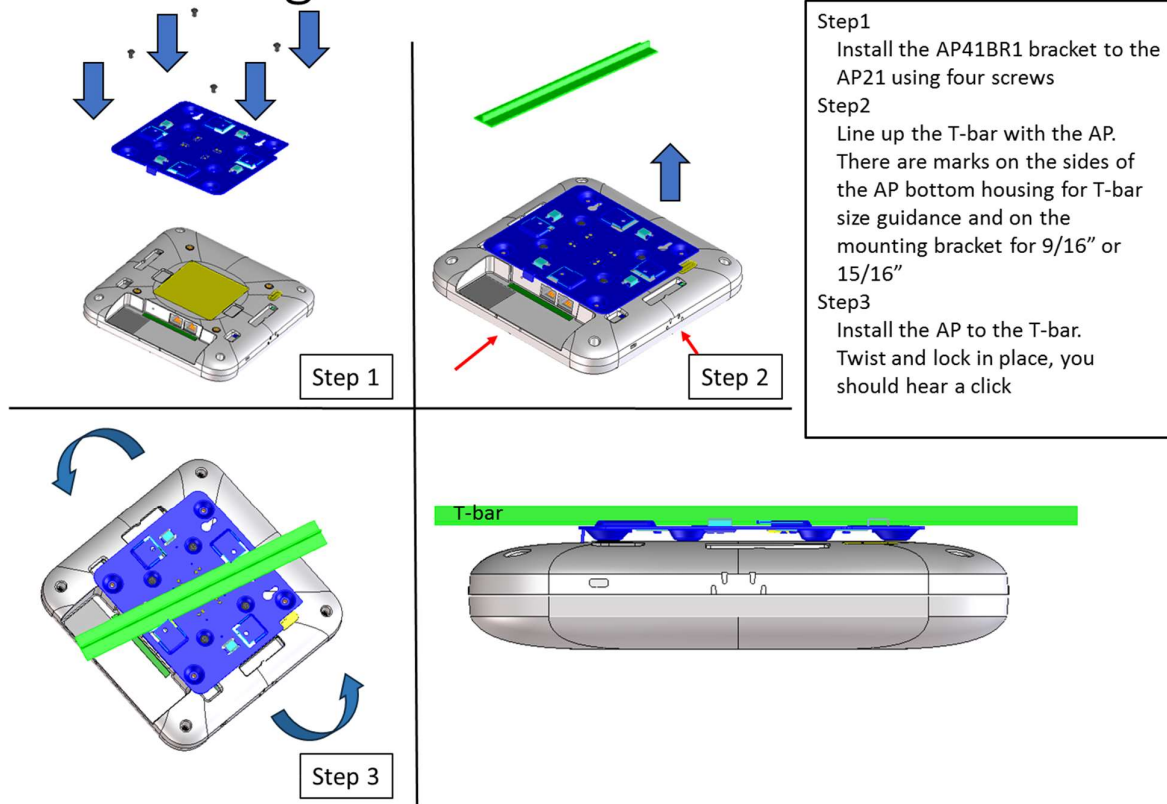
## I/O ports and Kensington lock



Reset	Reset to the factory default settings
12VDC	Support for the 12VDC power supply recommended by Mist
Eth1+PoE Out	10/100/1000 BaseT RJ45 interface that can output 48V PoE
Eth0+PoE In	10/100/1000 BaseT RJ45 interface that supports 802.3at PoE PD

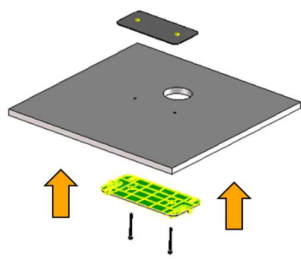
## Mounting kit installation

### Mounting to a T-bar

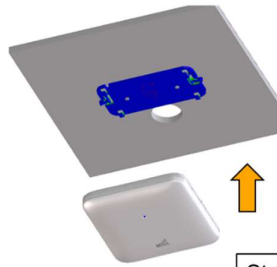


When mounting to a T-bar, please use the screws that are provided which have a head diameter of 8mm and a length of 6mm.

## Acoustic Tile Mounting



Step 1

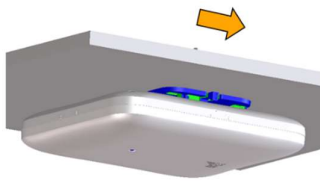


Step 2

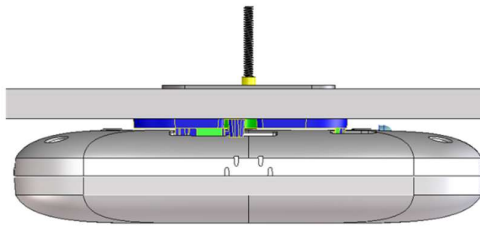
Step1  
Install the BT11BR1 bracket to the acoustic tile using the provided hardware. Tighten the screws to secure the bracket to the tile.

Step2  
Install the AP to the BT11BR1 bracket.

Step3  
Slide to lock the AP to the bracket.



Step 3



When mounting to an acoustic ceiling tile, please use the screws that are provided which have a head diameter of 7mm and a length of 40mm.

## Technical Specifications:

Feature	Description
Power options	802.3af PoE 12V / 3A DC power supply
Dimensions	203mm x 203mm x 40mm (7.99in x 7.99in x 1.57in)
Weight	0.636 kg (1.4 lbs)
Operating temperature	Internal antenna 0° to 40° C
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 - 10/100/1000BASE-T auto-sensing RJ-45 with PoE In 1 - 10/100/1000BASE-T auto-sensing RJ-45 with 48Vdc PoE Out
RF	2.4GHz - 2x2:2 spatial streams 802.11ac 5GHz - 2x2:2 spatial streams 802.11ac 2.4GHz BLE with Dynamic Antenna Array
Indicators	Multi-color status LED
Compliance standards	UL 60950-1 CAN/CSA-C22.2 No. 60950-1 UL 2043 FCC Part 15.247, 15.407, 15.107, and 15.109 RSS-247 ICES-003 (Canada)

The unit and all interconnected equipment must be installed indoors within the same building, including all PoE-powered network connections as described by Environment A of the IEEE 802.3af standard.

Suitable for use in environmental air space in accordance with Section 300-22(C) of the National Electrical Code, and Sections 2-128, 12-010(3), and 12-100 of the Canadian Electrical Code, Part 1, CSA C22.1.

**Warning:** The AP must be mounted only horizontally if you mount it into a plenum space.

## Warranty Information

The AP21 family of Access Points comes with a limited lifetime warranty.

### Ordering Information:

#### Access Points

AP21-US	WiFi & BLE Array AP with internal antennas for the US domain
AP21-WW	WiFi & BLE Array AP with internal antennas for the Worldwide domain

#### Mounting brackets

AP41BR1	Premium AP T-bar ceiling mounting bracket kit
BT11BR1	BLE Array AP mounting bracket kit

#### Power Supply options

12V DC supply	100-240VAC, 50-60 Hz, input All regions (output): 12V/3A DC output
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This product is intended to be supplied by an UL Listed and/or IEC/EN60950-1 approved power adapter suitable for use at maximum ambient temperature 40 degrees C, whose output meets SELV and LPS, and is rated 12 Vdc / 3A with an altitude of operation up to 3048m

This product is intended to be supplied by an UL Listed and/or IEC/EN60950-1 approved PoE DC Power Injector suitable for use at maximum ambient temperature 40 degrees C, whose output meets SELV and LPS, rated 57 Vdc / 0.6A with an altitude of operation up to 3048m

If you need further assistance with purchasing the power source, please contact Mist Systems for further information.

## **Regulatory Compliance Information:**

This product and all interconnected equipment must be installed indoors within the same building, including the associated LAN connections as defined by the 802.3at Standard.

## **FCC Requirement for Operation in the United States of America:**

### 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 minimum distance 20 cm between the radiator & your body.

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, 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.

### 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.
- Operations in the 5.15GHz – 5.25GHz band are restricted to indoor usage only.

#### FCC Note

- The country code selection is for non-US model only and is not available to all US models. Per FCC regulation, all WiFi products marketed in the US must be fixed to US operating channels only.

## Industry Canada

This device complies with ISED'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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



## Caution

- 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;
- 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
- Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

## Avertissement

- les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;
- De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

## Radiation Exposure Statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.