



airFiber™

24 GHz Point to Point
1.4+ Gbps Radio

Model: AF24

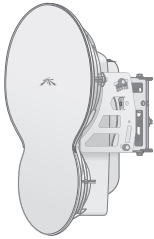
airFiber™

QUICK START GUIDE

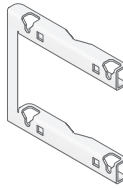
Introduction

Thank you for purchasing the Ubiquiti Networks™ airFiber™ 24 GHz Point-to-Point Radio, model AF24. This Quick Start Guide is designed to guide you through the installation of the airFiber AF24, show you how to access the airFiber Configuration Interface, and explain how to set up an airFiber link.

Package Contents



airFiber AF24



Pole Mount
Bracket



Pole Clamps
(Qty. 2)



Cable Ties
(Qty. 3)



M10x150
Carriage Bolts (Qty. 4)



M10 Flat
Washers
(Qty. 4)



M10 Split Lock
Washers
(Qty. 4)



M10 Hex Nuts
(Qty. 4)



airFiber AF24
Quick Start Guide



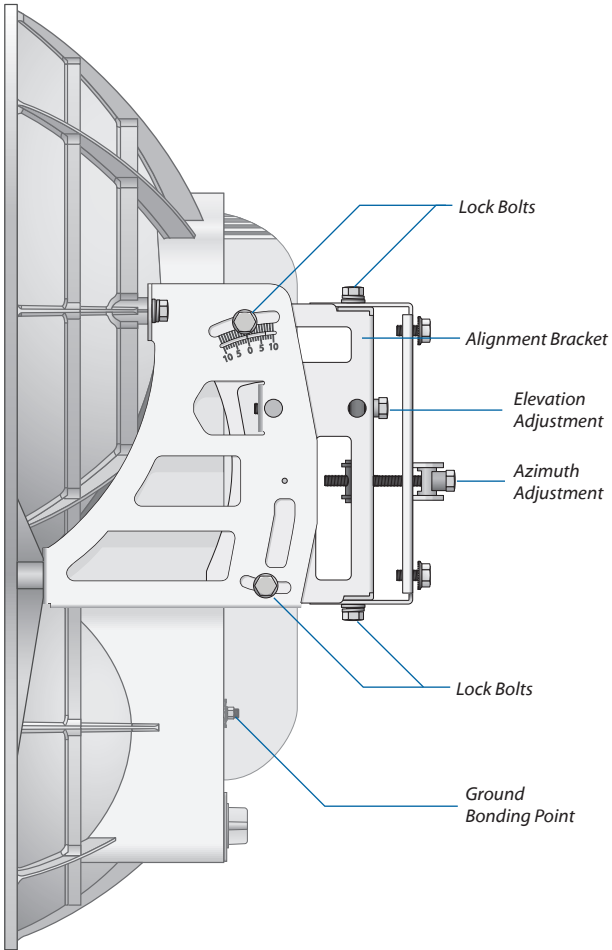
PoE Adapter
(50V, 1.2A GigE)



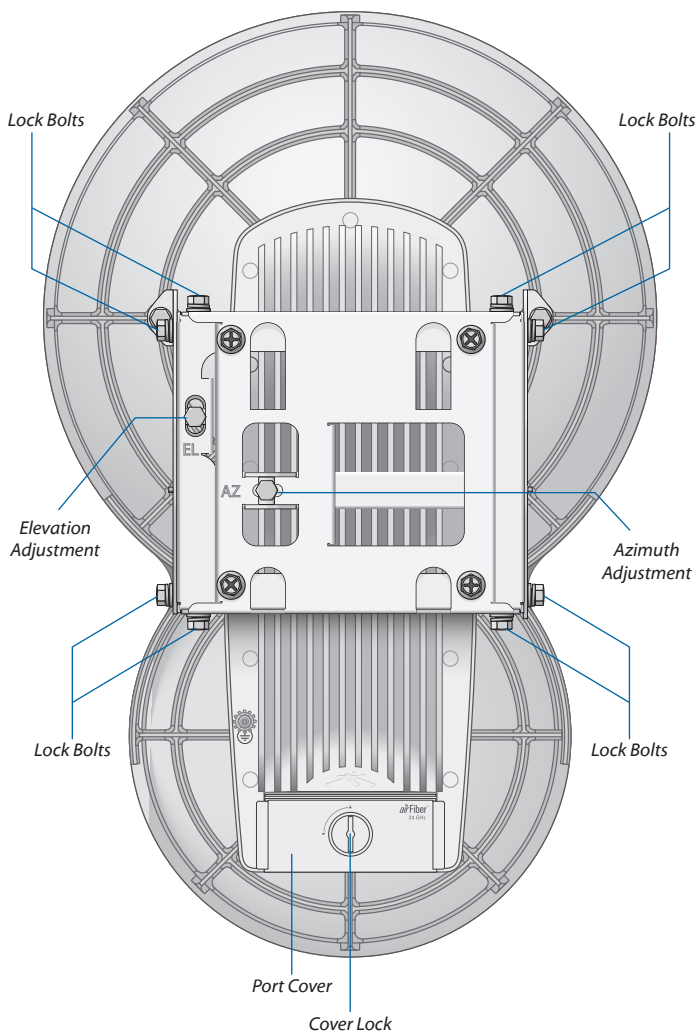
Power Cord

Hardware Overview

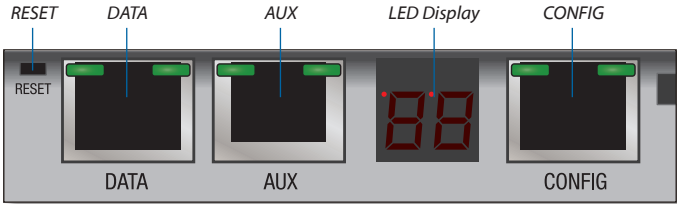
Side



Back

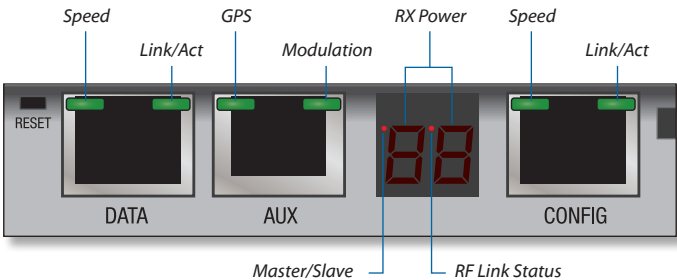


Interfaces



Interface	Description
RESET	To reset to factory defaults, press and hold the RESET button for more than five seconds while the unit is already powered on.
DATA	10/100/1000 Mbps port handles all user traffic.
AUX	Port for audio tone aiming.
LED Display	Digital display used for power, status, and mode information.
CONFIG	10/100 Mbps, secured port for configuration. By default, this is the only port that can monitor, configure, and/or update firmware.

LEDs



	LED	State	Status
DATA	Speed	Off	10/100 Mbps
		On	1000 Mbps
	Link/Act	Off	No Ethernet Link
		On	Ethernet Link Established
		Random Flashing	Ethernet Activity
AUX	GPS	Off	No GPS Synchronization
		On	Operational (Strong Signal)
		Normal Flash*	Operational (Weak Signal)
	Modulation	Off	¼x or 1x (QPSK SISO)
		Short Flash*	2x (QPSK MIMO)
		Normal Flash*	4x (16QAM MIMO)
		Long Flash*	6x (64QAM MIMO)
LED Display	RX Power (-dBm)	Number	Decodable RX Signal
		Flashing Number	Undecodable RX Signal
		□ L	Overload Condition
	Master/Slave	Off	Slave Mode
		On	Master Mode
	RF Link Status	Off	RF Off
		Short Flash*	Syncing
		Normal Flash*	Beaconing
		Long Flash*	Registering
			On
CONFIG	Speed	Off	10 Mbps
		On	100 Mbps
	Link/Act	Off	No Ethernet Link
		On	Ethernet Link Established
		Random Flashing	Ethernet Activity

* Short Flash (1:3 on/off cycle)
 Normal Flash (1:1 on/off cycle)
 Long Flash (3:1 on/off cycle)

Installation Requirements

- 17 mm wrench
- 13 mm socket wrench or driver
- Clear line of sight between airFiber radios
- Clear view of the sky for proper GPS operation
- Mounting location with $< 0.5^\circ$ displacement due to twist and sway under wind loading
- Mounting point:
 - At least 1 meter below the highest point on the structure
 - For tower installations, at least 3 meters below the top of the tower
- Ground wires – min. 8 AWG (10 mm^2) and max. length: 1 meter. As a safety precaution, ground the airFiber radios to grounded masts, poles, towers, or grounding bars.



WARNING: Failure to properly ground your airFiber units will void your warranty.

- (Recommended) 2 Outdoor GigE PoE surge protectors



Note: For guidelines about grounding and lightning protection, follow your local electrical regulatory codes.

- Outdoor, shielded Category 5e (or above) cabling should be used for all wired Ethernet connections. Category 6 is required for installations with long cable runs (up to 100 m).

We recommend that you protect your networks from the most brutal environments and devastating ESD attacks with industrial-grade shielded Ethernet cable from Ubiquiti Networks. For more details, visit www.ubnt.com/toughcable

Installation Overview

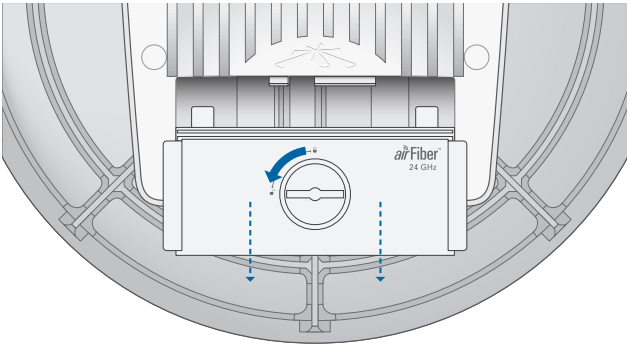
We recommend that you configure your paired airFiber radios before mounting. Below is an overview of the installation with specific details on the following pages:

- Connect Power over Ethernet to the DATA port, and connect an Ethernet cable between your computer and the CONFIG port.
- Configure the device settings in the airFiber Configuration Interface.

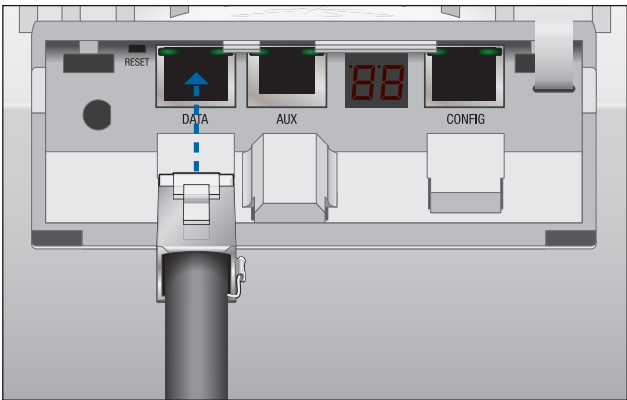
- Once configuration is complete, disconnect the cables to move the airFiber radios.
- Reconnect at the site.
- After you have mounted the airFiber radios, establish and optimize the RF link.

Connecting Power over Ethernet

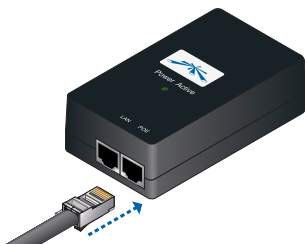
1. Turn the *Cover Lock* to the *Unlocked*  icon. Slide the *Port Cover* down to remove it.



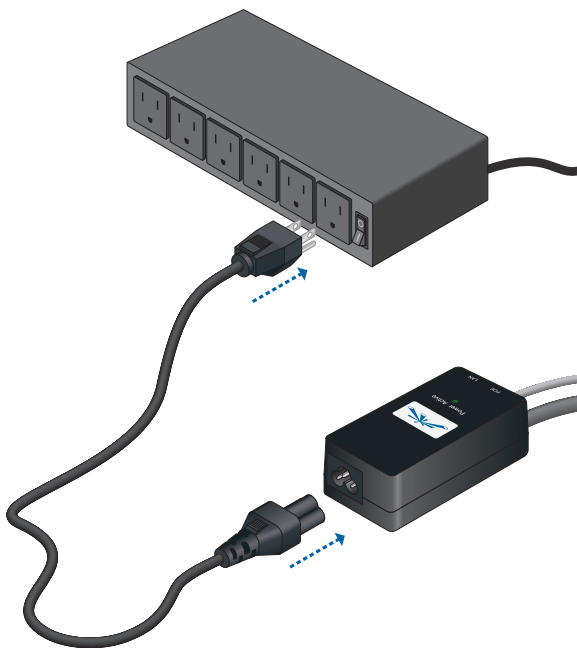
2. Connect an Ethernet cable to the *DATA* port.



3. Connect the other end of the Ethernet cable from the *DATA* port to the Ethernet port labeled **POE** on the PoE Adapter.



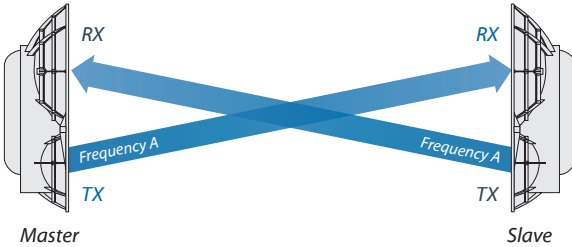
4. Connect the *Power Cord* to the power port on the *PoE Adapter*. Connect the other end of the *Power Cord* to a power source.



airFiber Configuration

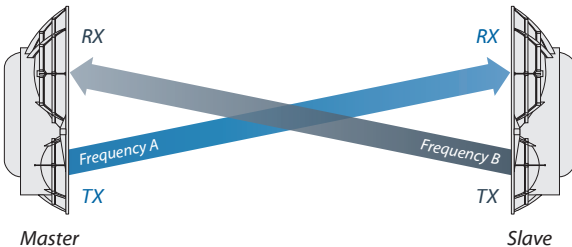
The instructions in this section explain how to access the airFiber Configuration Interface and configure the following settings:

- **Wireless Mode** Configure one airFiber AF24 as the *Master* and the other as the *Slave*.
- **Duplex** The airFiber AF24 supports both half-duplex and full-duplex operation. Half-duplex operation provides more frequency planning options at the cost of higher latency and throughput. Full-duplex operation provides the highest throughput and lowest latency; however, you have fewer frequency management options.
 - **Half Duplex (default)** The *TX* and *RX* *Frequencies* can be the same or different to suit local interference.



Half-Duplex Diagram

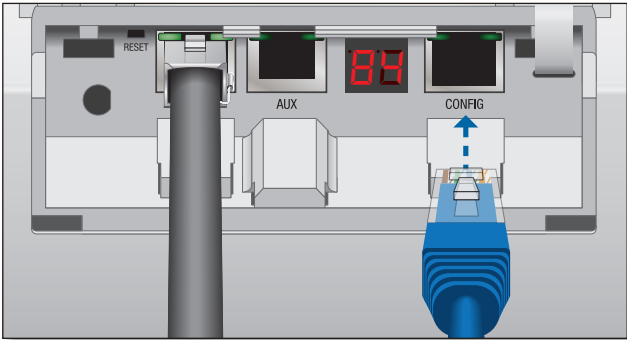
- **Full Duplex** The *TX* and *RX* *Frequencies* should be different.



Full-Duplex Diagram

- **TX and RX Frequencies** The *TX* *Frequency* on the Master must match the *RX* *Frequency* on the Slave, and vice versa.

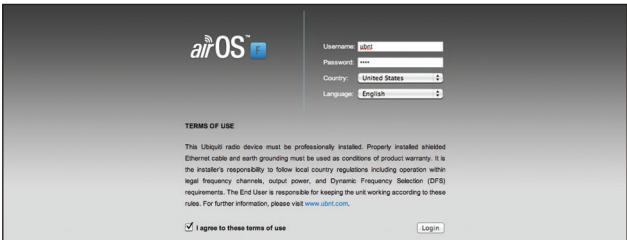
1. Connect an Ethernet cable from your computer to the *CONFIG* port on the airFiber AF24.



2. Configure the Ethernet adapter on your computer with a static IP address on the 192.168.1.x subnet (for example, 192.168.1.100).
3. Launch your web browser. Type **http://192.168.1.20** in the address field and press **enter** (PC) or **return** (Mac).



4. The login screen will appear. Enter **ubnt** in the *Username* and *Password* fields. Select your *Country* and *Language*. You must agree to the *Terms of Use* to use the product. Click **Login**.



Note: U.S. product versions are locked to the U.S. Country Code to ensure compliance with FCC regulations.

5. Click the **Wireless** tab.

The screenshot shows the 'airFiber' configuration interface with the 'airOS' logo in the top right. The navigation tabs are MAIN, WIRELESS, NETWORK, ADVANCED, SERVICES, and SYSTEM. The 'WIRELESS' tab is selected. The page title is 'Basic Wireless Settings'. The settings are as follows:

- Wireless Mode: Slave
- Link Name: UBNT
- Country Code: Locked
- Duplex: Half Duplex
- TX Frequency: 24.1 GHz
- RX Frequency: 24.1 GHz
- Output Power: 15 dBm
- Maximum Modulation Rate: 64-QAM MIMO
- Automatic Rate Adaptation:
- RX Gain: Low
- Wireless Security:
 - Key Type: HEX
 - Key: 0000:0000:0000:0000:0000:0000

At the bottom right, there is a 'Change' button. At the bottom left, there is a 'SERVICES PRODUCT' logo. At the bottom center, there is a copyright notice: '© Copyright 2006-2012 Ubiquiti Networks, Inc.'

6. Enter the *Basic Wireless Settings*:

- For one airFiber AF24, select **Master** from the *Wireless Mode* drop-down. For the other airFiber AF24, keep the default, *Slave*.
- Enter a name in the *Link Name* field. This should be the same on both the Master and the Slave.
- For the *Duplex* drop-down:
 - **Half Duplex** The default mode. The *TX* and *RX Frequencies* can be the same or different to suit local interference.
 - **Full Duplex** The *TX* and *RX Frequencies* should be different.
- Select a *TX Frequency*. This must match the *RX Frequency* on your other airFiber AF24.
- Select a *RX Frequency*. This must match the *TX Frequency* of your other airFiber AF24.
- If needed, change the *Output Power*, *Maximum Modulation Rate*, and/or *RX Gain* settings.

7. Configure the *Wireless Security*:a. Select the AES *Key Type*, **HEX** or **ASCII**.b. For the *Key* field:

- **HEX** Enter 16 bytes (eight, 16-bit HEX values: 0-9, A-F, or a-f). You can omit zeroes and use colons, similar to the IPv6 format.



Note: The airFiber Configuration Interface supports IPv6 formats excluding dotted quad and "::<" (double-colon) notation.

- **ASCII** Enter a combination of alphanumeric characters (0-9, A-Z, or a-z).

8. Click **Change** and then click **Apply**.

9. *In-Band Management* is enabled by default, so each airFiber radio must have a unique *IP Address*. (If the airFiber radios use the same *IP Address*, then you may lose access to the airFiber radios via the *DATA* ports.) To change the network settings:

a. Click the **Network** tab.

The screenshot shows the 'airFiber' configuration interface with the 'NETWORK' tab selected. Under 'Management Network Settings', the 'In-Band Management' checkbox is checked. The 'Management IP Address' is set to 'Static' with the value '192.168.1.20'. The 'Netmask' is '255.255.255.0' and the 'Gateway IP' is '192.168.0.1'. There are empty fields for 'Primary DNS IP' and 'Secondary DNS IP'. At the bottom, there are checkboxes for 'Management VLAN' and 'Auto IP Aliasing', both of which are currently unchecked. A 'Change' button is located at the bottom right of the settings area.

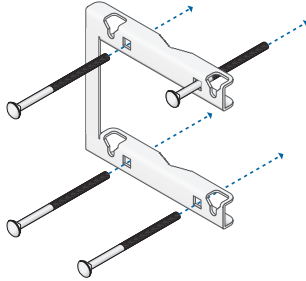
b. Change the *IP Address*, *Netmask*, and other settings to make them compatible with your network.c. Click **Change** and then click **Apply**.

Repeat the instructions in the *airFiber Configuration* section on your other airFiber radio. After you have configured the airFiber radios, disconnect them and move them to your installation site.

Hardware Installation

To install the airFiber AF24:

1. Insert the four *M10x150 Carriage Bolts* into the *Pole Mount Bracket*.

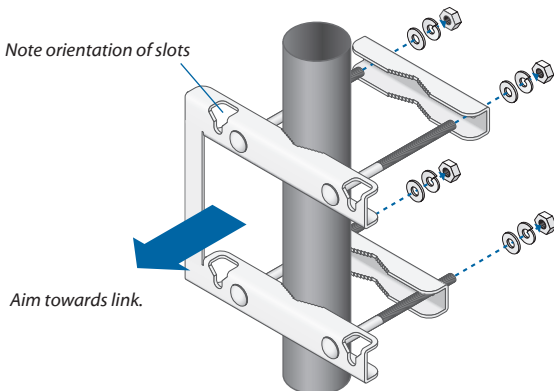


2. Attach the *Pole Mount Bracket* to a pole.

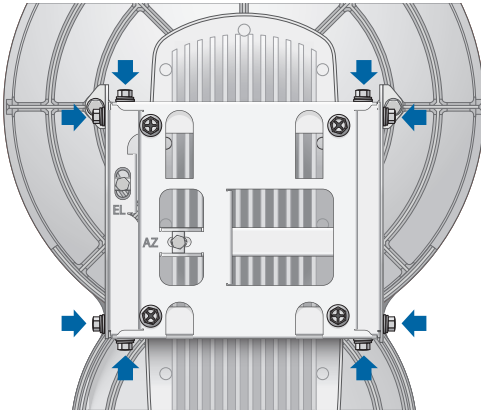


Note: The mounting assembly can accommodate a $\text{Ø } 2.0'' - 4.0''$ pole.

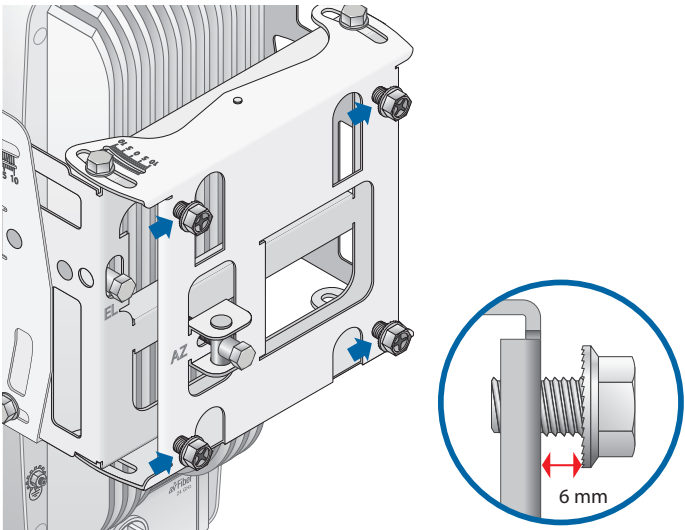
- a. Orient the *Pole Mount Bracket* around the pole so it is aimed in the direction of the other airFiber AF24.
- b. Insert the *M10x150 Carriage Bolts* into the *Pole Clamps*.
- c. Secure the clamps with the *M10 Flat Washers*, *Split Lock Washers*, and *Hex Nuts*.



- Loosen, but do NOT remove the eight *Lock Bolts* located on the *Alignment Bracket*.



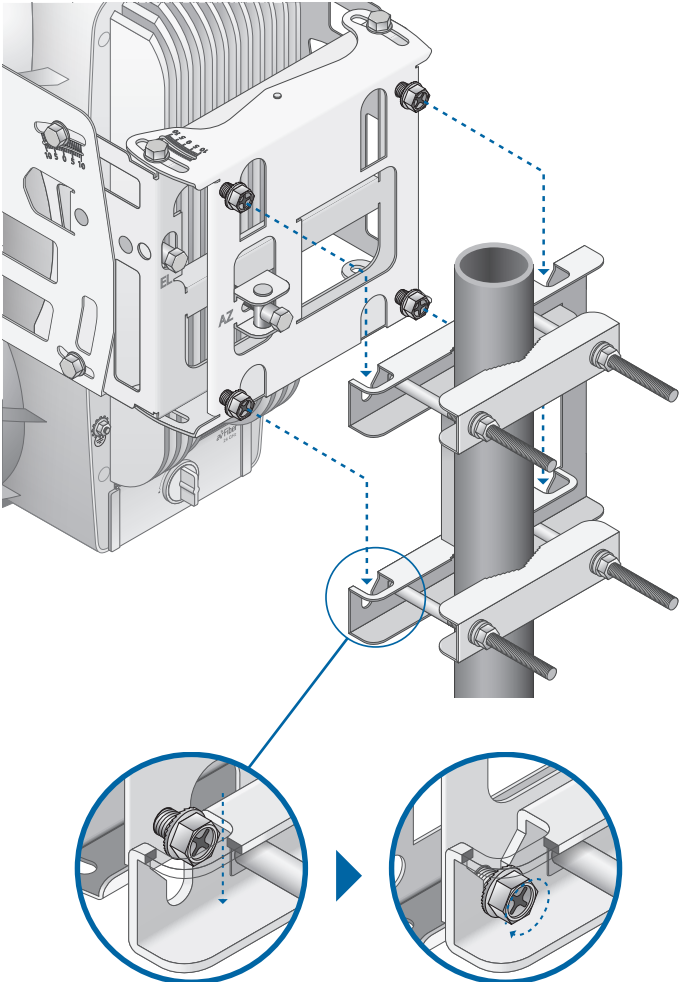
- Ensure that there is a 6 mm gap between the head of each *M8x14 Serrated Flange Screw* and the *Alignment Bracket*.



- Lift the airFiber AF24 and align the four *M8x14 Serrated Flange Screws* with the slots on the *Pole Mount Bracket*. Seat the screws in the slots. Securely tighten the screws.

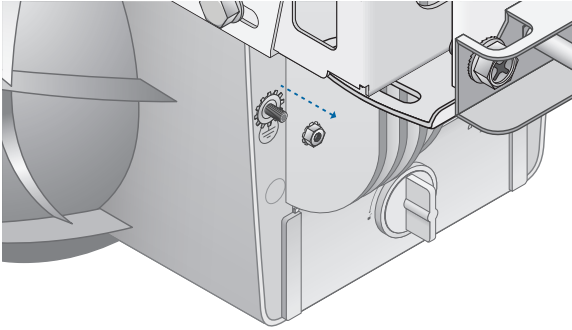


WARNING: To prevent injury, ensure that all four screws are seated and fully tightened.

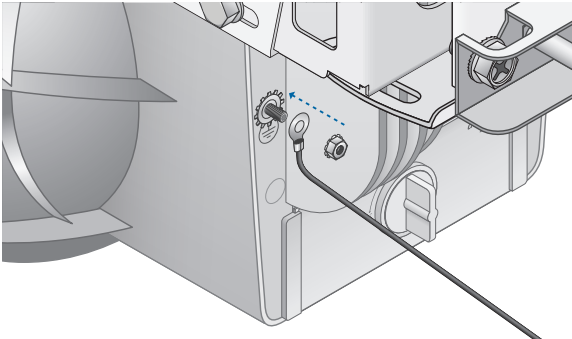


6. Attach a ground wire:

- a. Remove the nut from the *Ground Bonding Point*.



- b. Attach a ground wire (min. 8 AWG or 10 mm²) to the lug and replace the nut to secure the wire.



- c. Secure the other end of the ground wire to a grounded mast, pole, tower, or grounding bar.




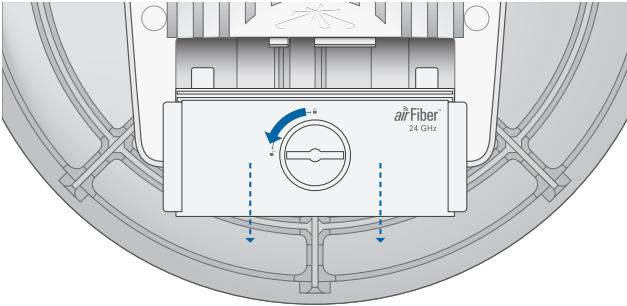
WARNING: Failure to properly ground your airFiber units will void your warranty.



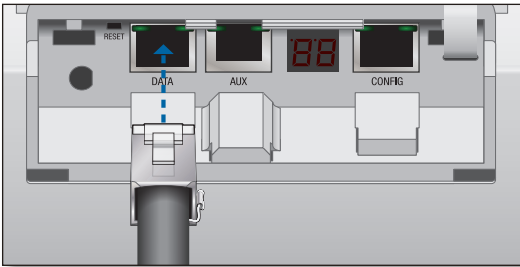
Note: The ground wire should be as short as possible and no longer than one meter in length.

Connecting Ethernet

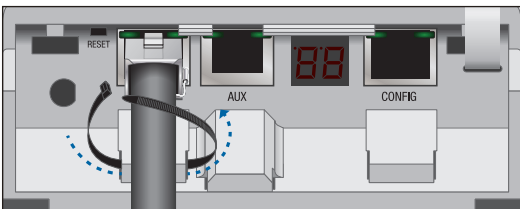
1. Turn the *Cover Lock* to the *Unlocked*  icon. Slide the *Port Cover* down to remove it.



2. Connect a TOUGH Cable or other outdoor, shielded CAT5e/6 cable to the *DATA* port.



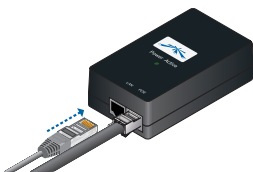
3. Create a strain relief for the Ethernet cable by feeding a *Cable Tie* through the tie slot under the cable. Then wrap the *Cable Tie* around the cable and tighten.



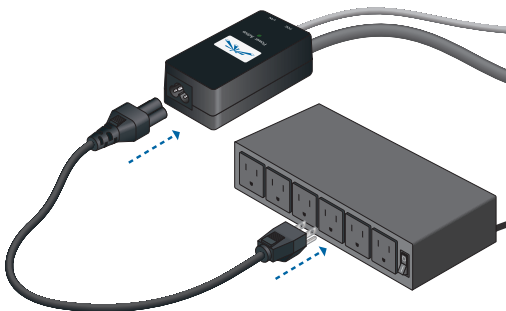
4. Connect the other end of the Ethernet cable from the *DATA* port to the Ethernet port labeled **POE** on the PoE Adapter.



5. Connect an Ethernet cable from your network to the Ethernet port labeled **LAN** on the PoE Adapter.

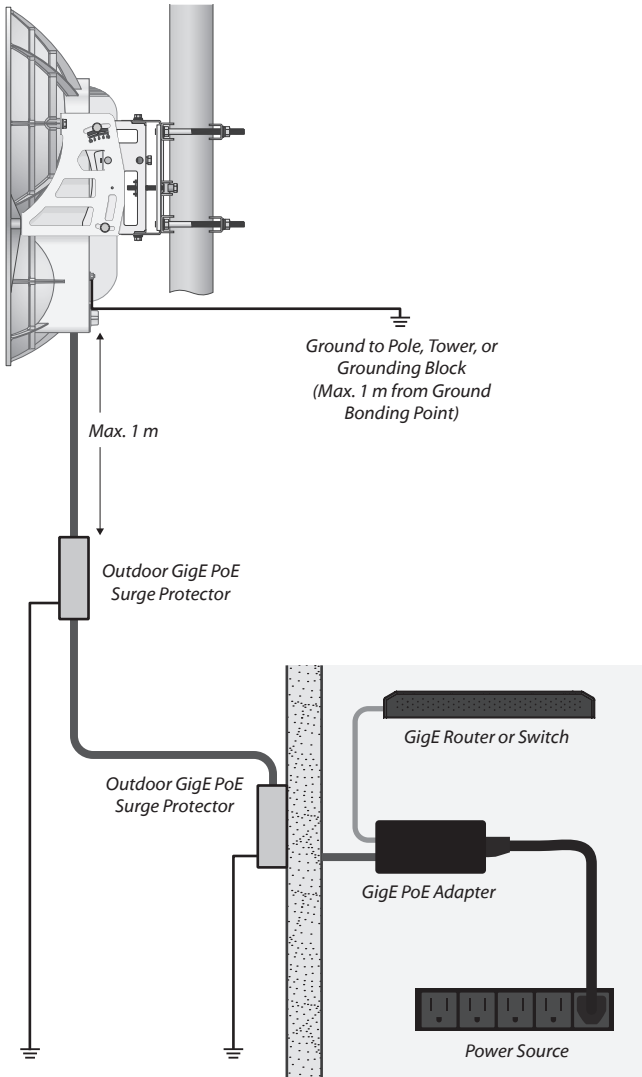


6. Connect the *Power Cord* to the power port on the PoE Adapter. Connect the other end of the *Power Cord* to a power source.



Note: For added protection, we recommend installing two GigE PoE surge protectors. Install the first surge protector within one meter of the airFiber *DATA* port, and install the second surge protector at the ingress point of the location housing the wired network equipment.

Below is a diagram of a finished installation with recommended surge protectors installed.



Alignment

Tips

- We recommend using a pair of installers in constant communication because in the fine-tuning stage, one installer makes azimuth and elevation adjustments on one airFiber radio while the other installer reports the received signal level at the other airFiber radio. (Fine-tuning is necessary because the main lobe of the receiver is more narrow than that of the transmitter, in both azimuth and elevation.)
- To accurately align the airFiber radios for best performance, you **MUST** align only one end of the link at a time.
- For more convenient alignment, you may consider using long-range scopes (not included) temporarily attached to your airFiber radios.
- You may need to use additional hardware to compensate for issues such as the improper orientation of a mounting pole or significant elevation differences between the airFiber radios.

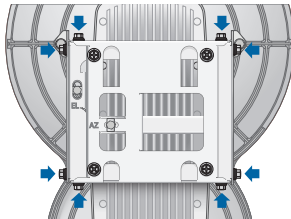
Establishing a Preliminary Link

Adjust the positions of the *Master* and the *Slave* to establish a preliminary link. This requires the *Master* and *Slave* to be within a few degrees of the line of sight between the airFiber radios.



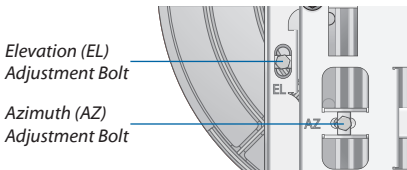
Note: The *Master* must be aimed first at the *Slave* because the *Slave* does not transmit any RF signal until it detects transmissions from the *Master*.

1. For the *Master* and *Slave*, ensure the eight *Lock Bolts* on the *Alignment Bracket* are sufficiently loose by spinning each washer by hand.

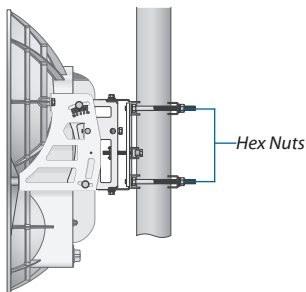


WARNING: All *Lock Bolts* **MUST** be loose to avoid damage to the airFiber housing.

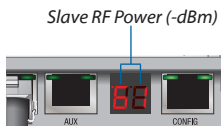
- For the *Master* and *Slave*, ensure the *Azimuth (AZ)* and *Elevation (EL)* Adjustment Bolts are in the middle of their adjustment ranges.



- Master** Aim the *Master* at the *Slave*. If necessary, adjust the *Master's* position on the pole:
 - Loosen the *Hex Nuts*.
 - Adjust the *Pole Mount Bracket* and *Pole Clamps*.
 - Tighten the *Hex Nuts*.



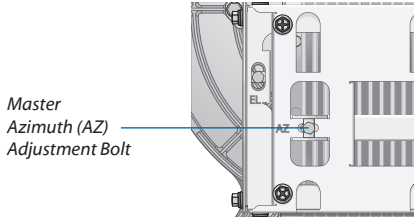
- Slave** Aim the *Slave* at the *Master* to achieve the strongest received signal level on the *Slave's* numeric LED Display, which is located next to the *CONFIG* port. If necessary, adjust the *Slave's* position on the pole.



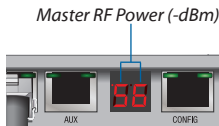
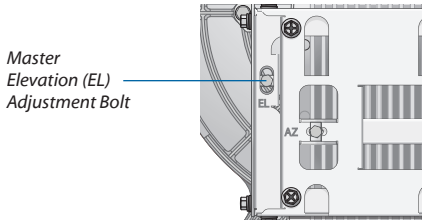
Note: Values on the LED Display are displayed in negative (-) dBm. For example, 61 represents a received signal level of -61 dBm. Lower values indicate stronger received signal levels.

5. **Master** Adjust the azimuth and elevation of the *Master* until the strongest received signal level is displayed on the LED Display of the *Master*.

- a. Sweep the *Azimuth (AZ) Adjustment Bolt* of the *Master* through its adjustment range.




- b. Sweep the *Elevation (EL) Adjustment Bolt* of the *Master* through its adjustment range.

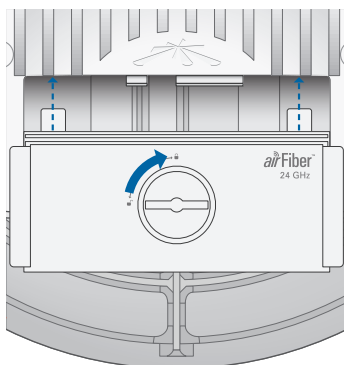


Note: If the LED Display indicates an overload condition **66**, refer to the airFiber AF24 User Guide at: documentation.ubnt.com for more information.

Fine-Tuning the Link

The *Azimuth (AZ)* and *Elevation (EL)* Adjustment Bolts of the *Alignment Bracket* adjust the azimuth and elevation within a range of $\pm 10^\circ$. For accurate alignment, make adjustments on one end of the link while the other installer reports the received signal level at the other end of the link. Do NOT make simultaneous adjustments on the *Master* and *Slave*.

1. **Slave** Adjust the azimuth and elevation of the *Slave* until the other installer sees the strongest received signal level displayed on the LED Display of the *Master*.
2. **Master** Adjust the azimuth and elevation of the *Master* until the other installer sees the strongest received signal level displayed on the LED Display of the *Slave*.
3. Repeat steps 1 and 2 until you achieve a symmetric link, with the received signal levels within 1 dB of each other. This ensures the best possible data rate between the airFiber radios.
4. Lock the alignment on both airFiber radios by tightening all eight *Lock Bolts* on the *Alignment Bracket*.
5. Observe the LED Display of each airFiber AF24 to ensure that the value remains constant while tightening the *Lock Bolts*. If the LED value changes during the locking process, loosen the *Lock Bolts*, finalize the alignment of each airFiber AF24 again, and retighten the *Lock Bolts*.
6. For each airFiber AF24, attach the *Port Cover* and turn the *Cover Lock* to the *Locked*  icon.



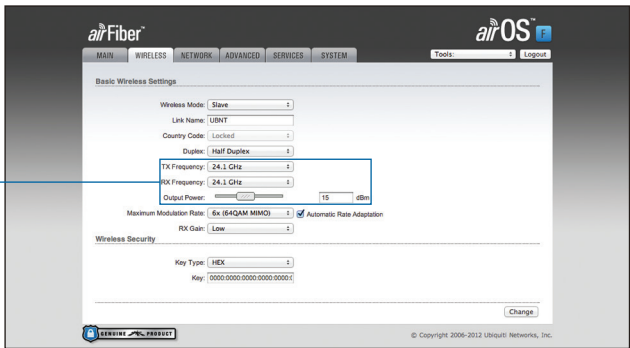
There are three methods for determining the received signal level:

- LED Display (described above)
- airFiber Configuration Interface
- Audio tone (optional equipment required)

Refer to the airFiber AF24 User Guide for instructions on the airFiber Configuration Interface and audio tone methods. The User Guide is available at: **documentation.ubnt.com**

Installer Compliance Responsibility

Devices must be professionally installed and it is the professional installer's responsibility to make sure the device is operated within local country regulatory requirements.



The *Frequencies and Output Power* fields are provided to the professional installer to assist in meeting regulatory requirements.

Specifications

airFiber AF24	
Dimensions	649 x 426 x 303 mm
Weight	10.5 kg (Mount Included)
Operating Frequency	24.05 – 24.25 GHz
Max Power Consumption	< 50 W
Power Supply	50V, 1.2A PoE GigE Adapter (Included)
Power Method	Passive Power over Ethernet (42-58VDC)
Certifications	CE, FCC, IC
Mounting	Pole Mount Kit (Included)
Wind Loading	69 lbf @ 100 mph
Operating Temperature	-40 to 55° C (-40 to 131° F)
Networking Interface	
Data Port	(1) 10/100/1000 Ethernet Port
Configuration Port	(1) 10/100 Ethernet Port

Receive Sensitivity			
Modulation	Sensitivity	FDD Capacity*	TDD Capacity*
64QAM	-66 dBm	1500 Mbps	760 Mbps
16QAM	-72 dBm	1000 Mbps	507 Mbps
QPSK MIMO	-78 dBm	500 Mbps	253 Mbps
QPSK SISO	-80 dBm	250 Mbps	127 Mbps
¼x QPSK SISO	-87 dBm	62.5 Mbps	31.7 Mbps

* FDD = (2) 100 MHz channels and TDD = (1) 100 MHz channel

Safety Notices

1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Only use attachments/accessories specified by the manufacturer.



WARNING: Do not use this product in location that can be submerged by water.



WARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
 - a. Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
 - b. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
 - c. Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.
 - d. Protective earthing is provided by Listed AC adapter. Building installation shall provide appropriate short-circuit backup protection.
 - e. Protective bonding must be installed in accordance with local national wiring rules and regulations.

General Warranty

UBIQUITI NETWORKS, Inc ("UBIQUITI NETWORKS") represents and warrants that the Products furnished hereunder shall be free from defects in material and workmanship for a period of one (1) year from the date of shipment by UBIQUITI NETWORKS under normal use and operation. UBIQUITI NETWORKS sole and exclusive obligation under the foregoing warranty shall be to repair or replace, at its option, any defective Product that fails during the warranty period. The expense of removal and reinstallation of any item is not included in this warranty.

The foregoing warranty is exclusive and in lieu of all other warranties, express or implied, including the implied warranties of merchantability and fitness for a particular purpose and any warranties arising from a course of dealing, usage or trade practice with respect to the products. Repair or replacement in the manner provided herein shall be the sole and exclusive remedy of Buyer for breach of warranty and shall constitute fulfillment of all liabilities of UBIQUITI NETWORKS with respect to the quality and performance of the Products. UBIQUITI NETWORKS reserves the right to inspect all defective Products (which must be returned by Buyer to UBIQUITI NETWORKS factory freight prepaid).

No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from UBIQUITI NETWORKS. Products returned without an RMA number will not be processed and will be returned to Buyer freight collect. UBIQUITI NETWORKS shall have no obligation to make repairs or replacement necessitated by catastrophe, fault, negligence, misuse, abuse, or accident by Buyer, Buyer's customers or any other parties. The warranty period of any repaired or replaced Product shall not extend beyond its original term.

EXCEPT FOR ANY EXPRESS WARRANTIES PROVIDED HEREIN, UBIQUITI NETWORKS' PRODUCTS AND SERVICES ARE PROVIDED "AS IS", WITHOUT WARRANTY OR CONDITION OF ANY KIND, EITHER EXPRESS OR IMPLIED. UBIQUITI NETWORKS, ITS AFFILIATES, AND ITS AND THEIR THIRD PARTY DATA, SERVICE, SOFTWARE AND HARDWARE PROVIDERS HEREBY DISCLAIM AND MAKE NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO REPRESENTATIONS, GUARANTEES, OR WARRANTIES OF MERCHANTABILITY, ACCURACY, QUALITY OF SERVICE OR RESULTS, AVAILABILITY, SATISFACTORY QUALITY, LACK OF VIRUSES, TITLE, QUIET ENJOYMENT, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. BUYER ACKNOWLEDGE THAT NEITHER UBIQUITI NETWORKS NOR ITS THIRD PARTY PROVIDERS CONTROLS BUYER'S EQUIPMENT OR THE TRANSFER OF DATA OVER COMMUNICATIONS FACILITIES, INCLUDING THE INTERNET, AND THAT THE PRODUCTS AND SERVICES MAY BE SUBJECT TO LIMITATIONS, INTERRUPTIONS, DELAYS, CANCELLATIONS AND OTHER PROBLEMS INHERENT IN THE USE OF THE COMMUNICATIONS FACILITIES. UBIQUITI NETWORKS, ITS AFFILIATES AND ITS AND THEIR THIRD PARTY PROVIDERS ARE NOT RESPONSIBLE FOR ANY INTERRUPTIONS, DELAYS, CANCELLATIONS, DELIVERY FAILURES, DATA LOSS, CONTENT CORRUPTION, PACKET LOSS, OR OTHER DAMAGE RESULTING FROM THESE PROBLEMS.

Warranty Conditions

The foregoing warranty shall apply only if:

- (I) The Product has not been subjected to misuse, neglect or unusual physical, electrical or electromagnetic stress, or some other type of accident.
- (II) No modification, alteration or addition has been made to the Product by persons other than UBIQUITI NETWORKS or UBIQUITI NETWORK'S authorized representatives or otherwise approved by UBIQUITI NETWORKS.
- (III) The Product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation.
- (IV) All Ethernet cabling runs use CAT5 (or above) shielded cabling.

Disclaimer: UBIQUITI NETWORKS does not warrant that the operation of the products is error-free or that operation will be uninterrupted. In no event shall UBIQUITI NETWORKS be responsible for damages or claims of any nature or description relating to system performance, including coverage, buyer's selection of products for buyer's application and/or failure of products to meet government or regulatory requirements.



WARNING: Failure to properly ground your airFiber units will void your warranty. (Please follow the instructions on page 6 for installation of the ground wires.)

Returns

In the unlikely event a defect occurs, please work through the dealer or distributor from which this product was purchased.

Compliance

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the 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.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For MPE and antenna usage details, please visit our website at www.ubnt.com/products

Industry Canada

This Class A digital apparatus complies with Canadian ICES-003.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 Canada.

Pour réduire le risque d'interférence aux autres utilisateurs, le type d'antenne et son gain doivent être choisis de façon que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas ce qui est nécessaire pour une communication réussie.

Cet appareil est conforme à la norme RSS Industrie Canada exempts de licence norme(s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne peut pas provoquer d'interférences et
2. Cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.

RF Exposure Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 107 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter, except as listed for this product's certification.

Les antennes utilisées pour ce transmetteur doivent être installées en considérant une distance de séparation de toute personne d'au moins 107 cm et ne doivent pas être localisées ou utilisées en conflit avec toute autre antenne ou transmetteur, excluant la liste de certification de ce produit.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it. This equipment is intended to be accessed only by service personnel and/or trained professionals.

Alert Sign (!) Follows CE Marking

Alert sign must be indicated if a restriction on use is applied to the product and it must follow the CE marking.



Declaration of Conformity

Česky [Czech]	UBIQUITI NETWORKS tímto prohlašuje, že tento UBIQUITI NETWORKS device, je ve shodě se základními požadavky a dále s ostatními ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede UBIQUITI NETWORKS erklærer herved, at følgende udstyr UBIQUITI NETWORKS device, overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Nederlands [Dutch]	Hierbij verklaart UBIQUITI NETWORKS dat het toestel UBIQUITI NETWORKS device, in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Bij deze verklaart UBIQUITI NETWORKS dat deze UBIQUITI NETWORKS device, voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
English	Hereby, UBIQUITI NETWORKS, declares that this UBIQUITI NETWORKS device, is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Eesti [Estonian]	Käesolevaga kinnitab UBIQUITI NETWORKS seadme UBIQUITI NETWORKS device, vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Suomi [Finnish]	UBIQUITI NETWORKS vakuuttaa täten että UBIQUITI NETWORKS device, tyypinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Français [French]	Par la présente UBIQUITI NETWORKS déclare que l'appareil UBIQUITI NETWORKS device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Deutsch [German]	Hiermit erklärt UBIQUITI NETWORKS, dass sich diese UBIQUITI NETWORKS device, in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMW i)
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ UBIQUITI NETWORKS ΔΗΛΩΝΕΙ ΟΤΙ UBIQUITI NETWORKS device, ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Magyar [Hungarian]	Alulírott, UBIQUITI NETWORKS nyilatkozom, hogy a UBIQUITI NETWORKS device, megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Íslenska [Icelandic]	Hér með lýsir UBIQUITI NETWORKS yfir við a UBIQUITI NETWORKS device, er í samræmi við grunnkröfur og a rar kröfur, sem ger a r eru í tilskipun 1999/5/EC.
Italiano [Italian]	Con la presente UBIQUITI NETWORKS dichiara che questo UBIQUITI NETWORKS device, è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar o UBIQUITI NETWORKS deklarē, ka UBIQUITI NETWORKS device, atbilst Direktīvas 1999/5/EK b) pielikuma prasīb un citiem ar to saistītiem noteikumiem.

Lietuviškai [Lithuanian]	UBIQUITI NETWORKS deklaruoja, kad šis UBIQUITI NETWORKS įrenginys atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Malti [Maltese]	Hawnhekk, UBIQUITI NETWORKS, jiddikjara li dan UBIQUITI NETWORKS device, jikkonforma mal- ti ijjiet essenzjali u ma provvedimenti o rajn rilevanti li hemm fid-Direttiva 1999/5/EC.
Norsk [Norwegian]	UBIQUITI NETWORKS erklærer herved at utstyret UBIQUITI NETWORKS device, er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.
Slovensky [Slovak]	UBIQUITI NETWORKS týmto vyhlasuje, že UBIQUITI NETWORKS device, spĺňa základné požiadavky a v etky príslušné ustanovenia Smernice 1999/5/ES.
Svenska [Swedish]	Härmed intygar UBIQUITI NETWORKS att denna UBIQUITI NETWORKS device, står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Español [Spanish]	Por medio de la presente UBIQUITI NETWORKS declara que el UBIQUITI NETWORKS device, cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Polski [Polish]	Niniejszym, firma UBIQUITI NETWORKS o wiadcza, że produkt serii UBIQUITI NETWORKS device, spełnia zasadnicze wymagania i inne istotne postanowienia Dyrektywy 1999/5/EC.
Português [Portuguese]	UBIQUITI NETWORKS declara que este UBIQUITI NETWORKS device, está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Română [Romanian]	Prin prezenta, UBIQUITI NETWORKS declară că acest dispozitiv UBIQUITI NETWORKS este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 1999/5/CE.

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