

airFiber[®] 5X

**5 GHz Carrier
Backhaul Radio**

Model: AF-5X

QUICK START GUIDE

Introduction

Thank you for purchasing the Ubiquiti Networks® airFiber® 5 GHz Carrier Backhaul Radio. This Quick Start Guide is designed to guide you through the installation, show you how to access the airFiber Configuration Interface, and explain how to set up an airFiber link. This Quick Start Guide also includes the warranty terms, and is for use with airFiber X, model AF-5X.

Package Contents



airFiber AF-5X



GPS Antenna Mount



External GPS Antenna



Metal Strap



Cable Ties
(Qty. 2)



Gigabit PoE Adapter
with Mounting Bracket
(24V, 1A)



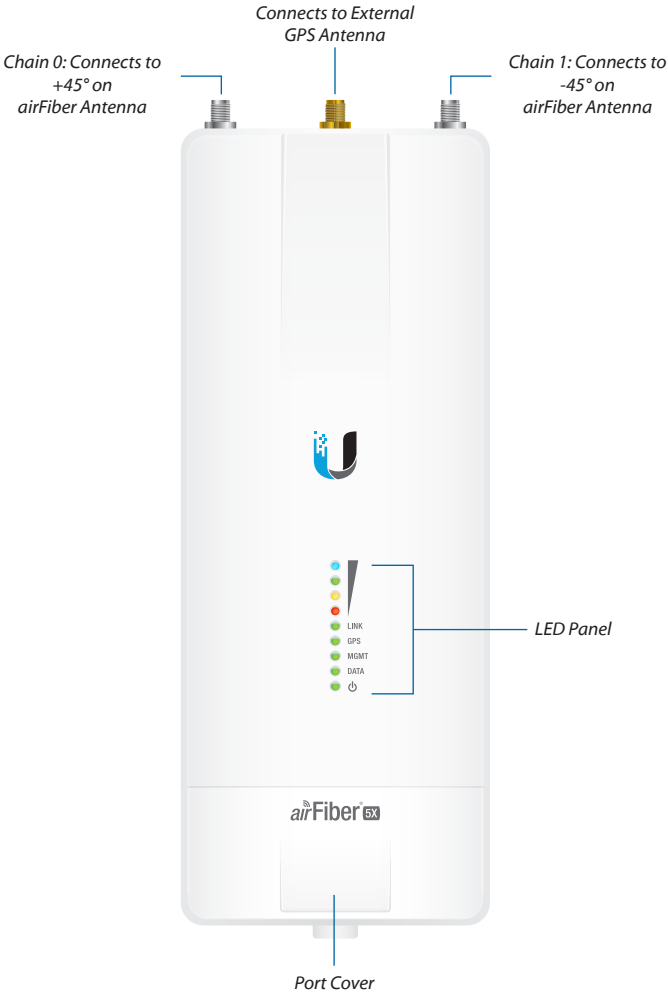
Power Cord



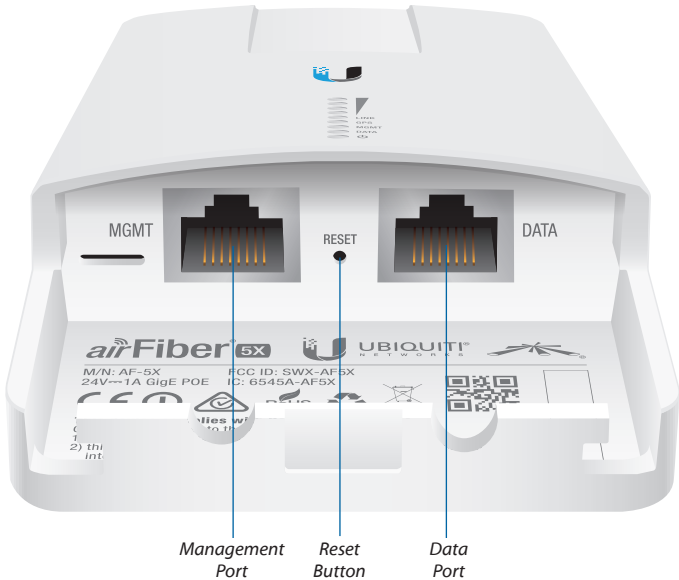
Quick Start Guide

TERMS OF USE: Ubiquiti radio devices must be professionally installed. Shielded Ethernet cable and earth grounding must be used as conditions of product warranty. TOUGH Cable™ is designed for outdoor installations. It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, and Dynamic Frequency Selection (DFS) requirements.

Hardware Overview



Ports



Management Port 10/100 Mbps, secured Ethernet port for configuration. *In-Band Management* is enabled by default in the airFiber Configuration Interface. When *In-Band Management* is disabled, the *MGMT* port is the only port that can monitor, configure, and/or update firmware.

Reset Button To reset to factory defaults, press and hold the *Reset* button for more than 10 seconds while the device is already powered on.

Data Port Gigabit PoE port for handling all user traffic and powering the device.

LEDs

Signal LEDs



-  **Signal 4** LED will light blue when on.
-  **Signal 3** LED will light green when on.
-  **Signal 2** LED will light yellow when on.
-  **Signal 1** LED will light red when on.

Bootup to airOS When powering on, the *Power, GPS, Link, and Signal 1-4* LEDs light on. Once the CPU code takes over, the *GPS, Link, and Signal 1-3* LEDs turn off. *Signal 4* LED remains on to indicate the boot sequence is underway.

Initializing airFiber Software When the airFiber application begins to boot under airOS, the *Signal 4* LED goes from solidly on to a 2.5 Hz flash. This continues until the airFiber AF-5X is fully booted.

Signal Level Once fully booted, the *Signal 1-4* LEDs act as a bar graph showing how close the airFiber AF-5X is to ideal aiming. This is auto-scaled based on the link range, the antenna gains, and the configured TX power of the remote airFiber AF-5X. Each *Signal* LED has three possible states: *On, Flashing, and Off*. All *Signal* LEDs would be solidly on in an ideal link. If the link has a 1 dB loss, the *Signal 4* LED will flash; a 2 dB loss and the *Signal 4* LED will turn off. The full bar graph LED states are shown below.

dB loss	0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13
	1	F	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	F	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	F	F	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	F	F	F	0

0 = Off, 1 = On, F = Flashing

Additional LEDs

LED	State	Status
LINK	Off	RF Off
	Short Flash*	Syncing
	Normal Flash*	Beaconing
	Long Flash*	Registering
	On	Operational
GPS	Off	No GPS Synchronization
	Normal Flash*	Non-Operational (Weak Signal)
	On	Operational (Strong Signal)
MGMT	Off	No Ethernet Link
	On	Ethernet Link Established
	Random Flashing	Ethernet Activity
DATA	Off	No Ethernet Link
	On	Ethernet Link Established
	Random Flashing	Ethernet Activity
	Off	No Power
	On	Powered On

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

Installation Requirements

The airFiber AF-5X radio operates only with an airFiber antenna or a retrofitted RocketDish™ antenna.

Available airFiber antenna models:

- AF-5G23-S45
- AF-5G30-S45
- AF-5G34-S45

Available retrofit accessory for RocketDish (RD-5G30/RD-5G34):

- AF-5G-OMT-S45

Other Requirements

- Clear line of sight between airFiber radios
- Clear view of the sky for proper GPS operation
- Vertical mounting orientation
- Mounting point:
 - At least 1 m below the highest point on the structure
 - For tower installations, at least 3 m below the top of the tower
- Ground wires – min. 10 AWG (5 mm²) and max. length: 1 m. As a safety precaution, ground the airFiber radio to grounded masts, poles, towers, or grounding bars.



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

- (Recommended) 2 Outdoor Gigabit PoE surge protectors



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

- Outdoor, shielded Category 6 (or above) cabling and shielded RJ-45 connectors are required for all wired Ethernet connections.

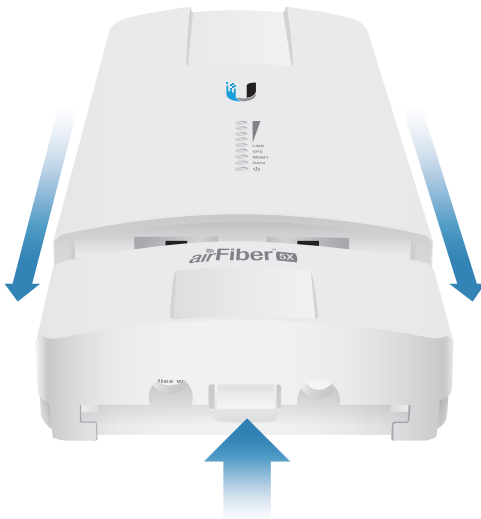
Installation Overview

We recommend that you configure your paired airFiber AF-5X radios before site installation. Below is an overview of the installation with specific details in the following instructions:

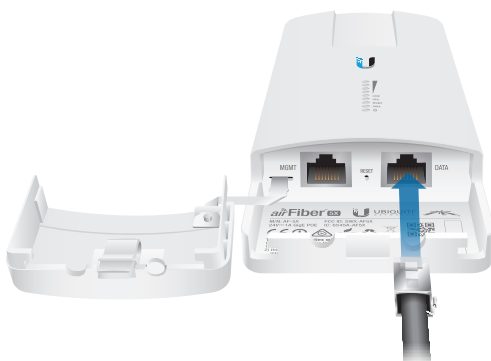
- Connect Power over Ethernet to the *DATA* port, and connect an Ethernet cable between your computer and the *MGMT* port.
- Configure the device settings in the airFiber Configuration Interface.
- Install a ground wire and mount the airFiber AF-5X to an airFiber compatible antenna.
- At the installation site, install the dish antenna (see the antenna's Quick Start Guide for installation instructions).
- Secure the ground wire and mount the GPS antenna.
- Establish and optimize the RF link.

Connecting Power over Ethernet

1. Lift the release latch on the bottom of the airFiber AF-5X and slide the *Port Cover* off.



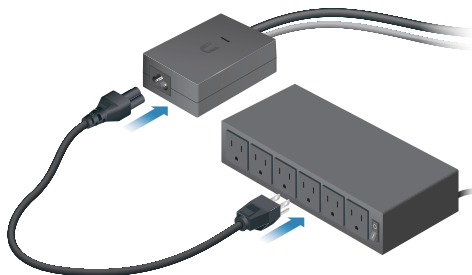
2. Connect an Ethernet cable to the *DATA* port.



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



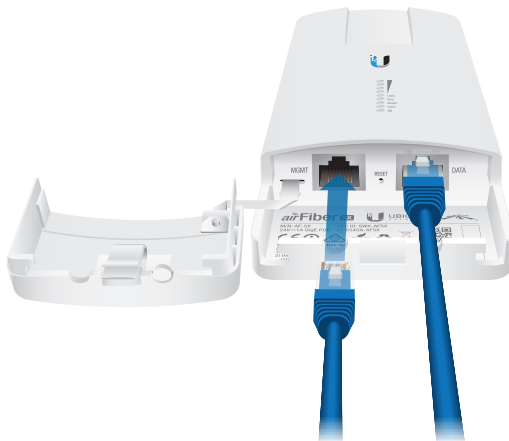
4. Connect the *Power Cord* to the power port on the *Gigabit PoE Adapter*. Connect the other end of the *Power Cord* to a power source.



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 AF-5X as the *Master* and the other as the *Slave*.
 - **Frequency Setting** The operating *Frequency* must be the same on both the Master and the Slave.
1. Connect an Ethernet cable from your computer to the *MGMT* port on the airFiber AF-5X.



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

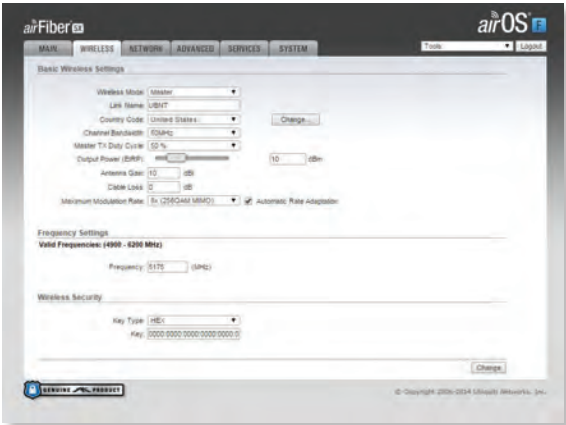


4. The login screen will appear. Enter **ubnt** in the *Username* and *Password* fields. Select your *Country* and *Language*. You must agree to the *Terms of Use* to use the product. Click **Login**.



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

5. The *Main* tab will appear. Click the **Tools** drop-down and select **Link Calculator**. This tool will guide you on how to best minimize bandwidth and power/interference issues.
6. Enter the requirements of your link, and then click **Calculate**. Adjust the values as needed to get the optimal result, and then write down the settings needed for your configuration.
7. Click the **Wireless** tab.



8. Configure the *Basic Wireless Settings*:
 - a. For one airFiber AF-5X, select **Master** as the *Wireless Mode*. For the other airFiber AF-5X, keep the default, *Slave*.
 - b. Enter a name in the *Link Name* field. This should be the same on both the Master and the Slave.
 - c. If needed, change the *Channel Bandwidth*, *(Master) Duty Cycle*, *Output Power* and/or *Maximum Modulation Rate* settings.
9. Configure the *Frequency Setting*. The selected *Frequency* must be the same on both airFiber radios.
10. 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).
11. Click **Change** and then click **Apply**.

12. *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.) Click the **Network** tab.



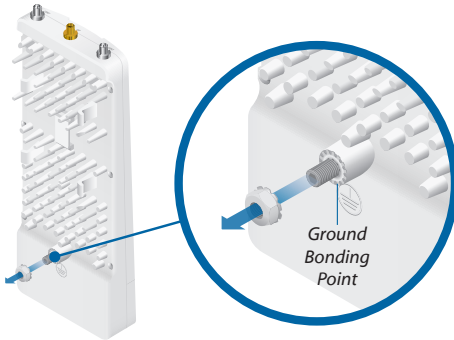
- a. For the *Management IP Address* option:
- **DHCP** Keep the default, *DHCP*, to use DHCP reservation on your router to assign a unique *IP Address*.
 - **Static** Change the *IP Address*, *Netmask*, and other settings to make them compatible with your network.
- b. Click **Change** and then click **Apply**.

Repeat the instructions in the *airFiber Configuration* section on your other airFiber AF-5X. After you have configured the airFiber radios, disconnect them and move them to your installation site.

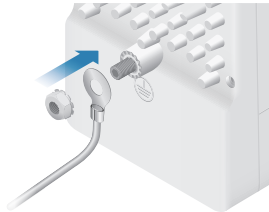
Hardware Installation

Install a Ground Wire

1. Remove the nut from the *Ground Bonding Point* located on the back of the airFiber AF-5X.



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



3. At the installation site, secure the other end of the ground wire to a grounded mast, pole, tower, or grounding bar.



WARNING: Failure to properly ground your airFiber AF-5X will void your warranty.

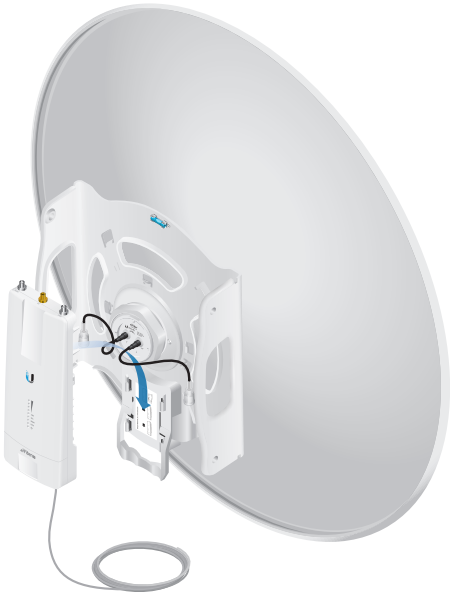


Note: The ground wire should be as short as possible and no longer than one meter in length.

Mount to an Antenna

The airFiber AF-5X can be mounted to an airFiber antenna or a retrofitted RocketDish. The airFiber Antenna (AF-5G30-S45) is shown in the following steps:

1. Attach the airFiber AF-5X to the *Mounting Bracket*.
 - a. Align the mounting tabs on the back of the airFiber AF-5X with the *Mounting Bracket*.
 - b. Slide the airFiber AF-5X down to lock it into place.



2. Attach the *RF Cables* from the antenna feed to the RF connectors on the airFiber AF-5X in this combination: +45° to *Chain 0* and -45° to *Chain 1*.



3. Attach the *External GPS Antenna* to the RF connector labeled *GPS*. Then place the magnetic *External GPS Antenna* on the bracket (this is temporary; you will mount the *External GPS Antenna* on the *GPS Antenna Mount* at the site).



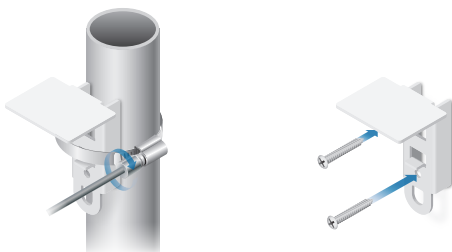
4. Attach the protective shroud.
- a. Align the hash mark on the top of the shroud with the notch on the dish antenna.
 - b. Rotate the shroud clockwise until it locks into place.



Mount the External GPS Antenna

Locate a mounting point that has a clear view to the sky, and is above and as far away as possible from the airFiber AF-5X.

1. Attach the *GPS Antenna Mount* to the pole using the metal strap, or attach it to a wall using the appropriate fasteners (not included).



2. Place the *External GPS Antenna* on the mount.

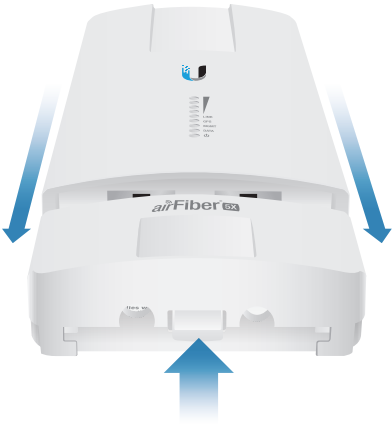


3. Secure the cable of the *External GPS Antenna* to the mount with a *Cable Tie*.



Connecting Power over Ethernet

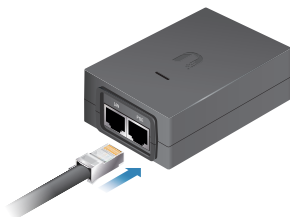
1. Lift the release latch on the bottom of the airFiber AF-5X and slide the *Port Cover* off.



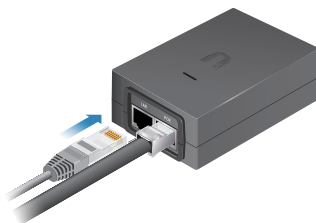
2. Connect an outdoor, shielded Ethernet cable to the *DATA* port.



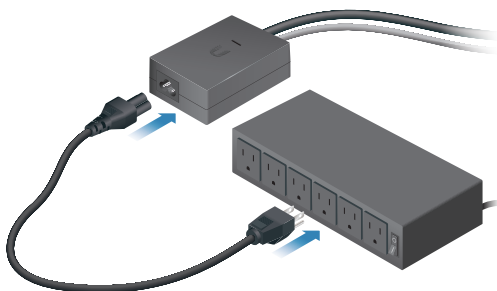
3. Connect the other end of the cable from the *DATA* port to the Ethernet port labeled **POE** on the *Gigabit PoE Adapter*.



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



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

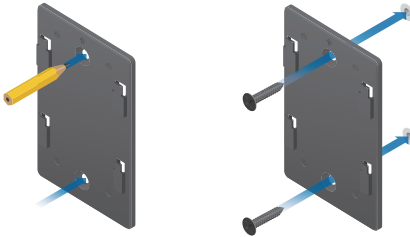


Mount the PoE Adapter (Optional)

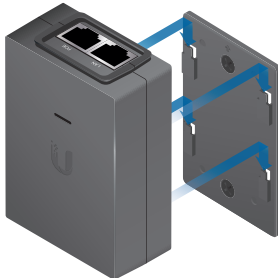
1. Remove the *Mounting Bracket* from the adapter by sliding the bracket downward.



2. Place the *Mounting Bracket* at the desired location and mark the holes for the fasteners. Pre-drill the holes if necessary, then secure the bracket to wall using two fasteners (not included).

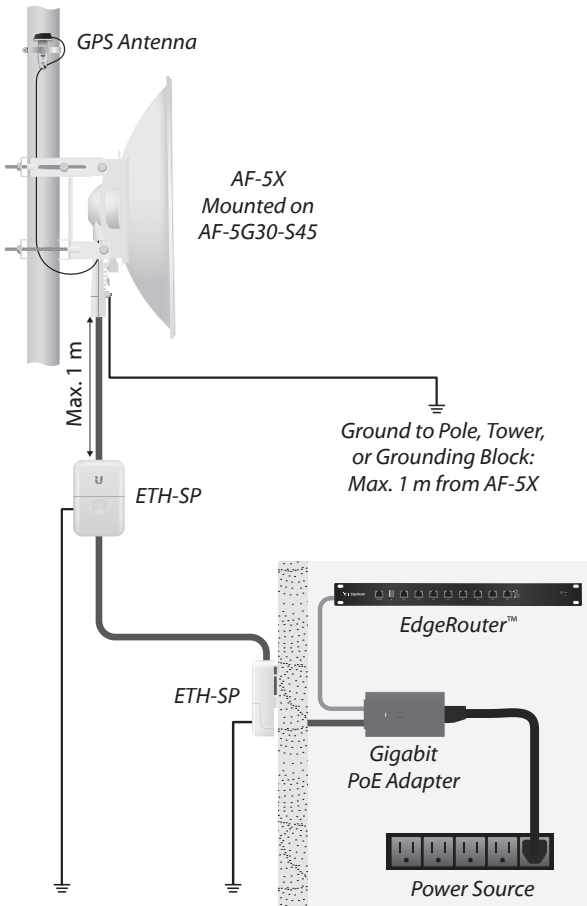


3. Attach the *Gigabit PoE Adapter* to the bracket by aligning the four slots and tabs, and then slide the adapter downward.



Surge Protection

For added protection, install two surge suppressors, such as the Ubiquiti Ethernet Surge Protector, model ETH-SP, at the end of each link. 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.



Alignment

Tips

- To accurately align the airFiber radios for best performance, you **MUST** align only one end of the link at a time.
- 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 airFiber radios.

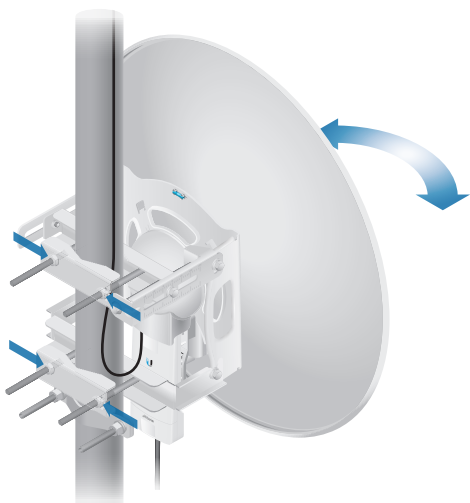
Establishing a Link

Adjust the positions of the *Master* and the *Slave* to establish a link. The following guide features the airFiber antenna, AF-5G30-S45:

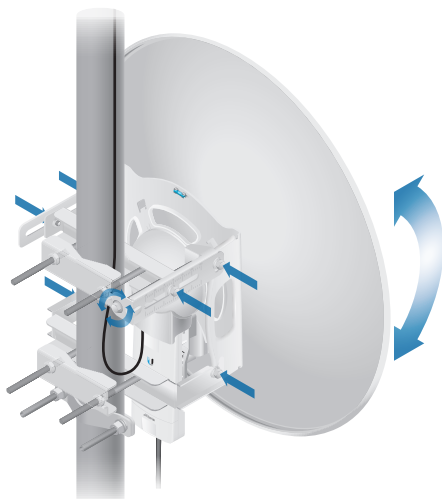


Note: The *Master* must be aimed first at the *Slave* because the *Slave* does not transmit any RF signal until it detects transmissions from the *Master*.

1. **Master** Visually aim the *Master* at the *Slave*. To adjust the *Master's* position:
 - a. Loosen the four pole clamp nuts, and rotate the airFiber antenna on the pole to align the azimuth.



- b. Loosen the six elevation bolts, and use the hex nut on the elevation rod to adjust the elevation.



Note: Do NOT make simultaneous adjustments on the *Master* and *Slave*.

2. **Slave** Visually aim the *Slave* at the *Master*. To adjust the *Slave*'s position:
 - a. Loosen the four pole clamp nuts, and rotate the airFiber antenna on the pole to align the azimuth.
 - b. Loosen the six elevation bolts, and use the hex nut on the elevation rod to adjust the elevation.
3. Check to see if a link is established. Ensure that the *LINK* LED is solidly lit green and the *Signal* LEDs of the *Slave* are displaying signal levels.



4. **Slave** Aim the *Slave* at the *Master* to achieve the strongest signal level on the *Master*.



Note: Refer to the Signal Level table on page 4 for details on the signal values.



Note: Maximum signal strength can best be achieved by iteratively sweeping through both azimuth and elevation.

5. **Master** Aim the *Master* at the *Slave* to achieve the strongest signal level on the *Slave*.
6. Repeat steps 4 and 5 until you achieve an optimal link, with all four *Signal* LEDs solidly lit. This ensures the best possible data rate between the airFiber radios.
7. Lock the alignment on both airFiber antennas by tightening all the nuts and bolts.
8. Observe the *Signal* LEDs of each airFiber radio to ensure that the values remain constant while tightening the nuts and bolts. If any LED value changes during the locking process, loosen the nuts and bolts, finalize the alignment of each airFiber antenna again, and retighten the nuts and bolts.

Refer to the airFiber AF-5X User Guide for details on the airFiber Configuration Interface.

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 screenshot displays the airFiber OS configuration interface. The top navigation bar includes tabs for MAIN, WIRELESS, NETWORKS, ADVANCED, SERVICES, and SYSTEM. The WIRELESS tab is selected. The interface is divided into three main sections: Basic Wireless Settings, Frequency Settings, and Wireless Security. In the Basic Wireless Settings section, the Wireless Mode is set to Master, Link Name is UBR17, Country Code is United States, Channel Bandwidth is 50MHz, and Master Tx Duty Cycle is 50%. A blue box highlights the Output Power (ERP) slider set to 10 dBm, the Antenna Gain field set to 10 dB, and the Cable Loss field set to 0 dB. The Frequency Settings section shows Valid Frequencies: (4900 - 6200 MHz) and a blue box highlights the Frequency field set to 5475 MHz. The Wireless Security section shows Key Type set to HEX and a Key field with the value 0000-0000-0000-0000-0000-0000-0000-0000. A blue line connects the highlighted fields to the text below.

The *Output Power*, *Antenna Gain*, *Cable Loss*, and *Frequency* fields are provided to the professional installer to assist in meeting regulatory requirements.

Specifications

airFiber AF-5X	
Dimensions	224 x 82 x 48 mm (8.82 x 3.23 x 1.89")
Weight	0.35 kg (0.77 lb)
RF Connectors	(2) RP-SMA Weatherproof (CH0, CH1) (1) SMA Weatherproof (GPS)
GPS Antenna	External, Magnetic Base
Max. Conducted TX Power	26 dBm (Depending on Regulatory Region)
Power Supply	24V, 1A PoE Gigabit Adapter (Included)
Power Method	Passive Power over Ethernet
Mounting	Rocket Mount Compatible GPS Pole Mount (Included)
Certifications	FCC Part 15.407 CE EN 302502 v1.2.1, EN 301 893 v1.7.1
Operating Temperature	-40 to 55° C (-40 to 131° F)
Networking Interface	
Data Port	(1) 10/100/1000 Ethernet Port
Management Port	(1) 10/100 Ethernet Port
System	
Maximum Throughput	500 Mbps
Encryption	128-bit AES
OS	airOS F
Wireless Modes	Master/Slave
Radio	
Operating Frequency	5150-5925 MHz (Depends on Regulatory Region)
Frequency Accuracy	± 2.5 ppm without GPS Synchronization ± 0.2 ppm with GPS Synchronization
Channel Bandwidth	10 MHz, 20 MHz, 30 MHz, 40 MHz, 50 MHz Selectable

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.

Limited Warranty

UBIQUITI NETWORKS, Inc (“UBIQUITI NETWORKS”) warrants that the product(s) furnished hereunder (the “Product(s)”) 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 and liability under the foregoing warranty shall be for UBIQUITI NETWORKS, at its discretion, to repair or replace any Product that fails to conform to the above warranty during the above warranty period. The expense of removal and reinstallation of any Product is not included in this warranty. The warranty period of any repaired or replaced Product shall not extend beyond its original term.

Warranty Conditions

The above warranty does not apply if the Product:

- (I) has been modified and/or altered, or an addition made thereto, except by Ubiquiti Networks, or Ubiquiti Networks’ authorized representatives, or as approved by Ubiquiti Networks in writing;
- (II) has been painted, rebranded or physically modified in any way;
- (III) has been damaged due to errors or defects in cabling;
- (IV) has been subjected to misuse, abuse, negligence, abnormal physical, electromagnetic or electrical stress, including lightning strikes, or accident;
- (V) has been damaged or impaired as a result of using third party firmware;
- (VI) has no original Ubiquiti MAC label, or is missing any other original Ubiquiti label(s); or
- (VII) has not been received by Ubiquiti within 30 days of issuance of the RMA.

In addition, the above warranty shall apply only if: the product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation; all Ethernet cabling runs use CAT5 (or above), and for outdoor installations, shielded Ethernet cabling is used, and for indoor installations, indoor cabling requirements are followed.



WARNING: Failure to properly ground your airFiber AF-5X will void your warranty. (Please follow the instructions on page 12 for installation of the ground wires.)

Returns

No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from UBIQUITI NETWORKS during the warranty period, and the Products being received at UBIQUITI NETWORKS’ facility freight prepaid in accordance with the RMA process of UBIQUITI NETWORKS. Products returned without an RMA number will not be processed and will be returned freight collect or subject to disposal. Information on the RMA process and obtaining an RMA number can be found at: www.ubnt.com/support/warranty.

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Limitation of Liability

EXCEPT TO THE EXTENT PROHIBITED BY LOCAL LAW, IN NO EVENT WILL UBIQUITI OR ITS SUBSIDIARIES, AFFILIATES OR SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES (INCLUDING LOST PROFIT, LOST Data, OR DOWNTIME COSTS), ARISING OUT OF THE USE, INABILITY TO USE, OR THE RESULTS OF USE OF THE PRODUCT, WHETHER BASED IN WARRANTY, CONTRACT, TORT OR OTHER LEGAL THEORY, AND WHETHER OR NOT ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Note

Some countries, states and provinces do not allow exclusions of implied warranties or conditions, so the above exclusion may not apply to you. You may have other rights that vary from country to country, state to state, or province to province. Some countries, states and provinces do not allow the exclusion or limitation of liability for incidental or consequential damages, so the above limitation may not apply to you. EXCEPT TO THE EXTENT ALLOWED BY LOCAL LAW, THESE WARRANTY TERMS DO NOT EXCLUDE, RESTRICT OR MODIFY, AND ARE IN ADDITION TO, THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE LICENSE OF ANY SOFTWARE (EMBEDDED IN THE PRODUCT) TO YOU. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to any transactions regarding the sale of the Products.

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.

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 or more 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.

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.

This radio transmitter (FCC: SWX-AF5X) has been approved by FCC to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

- Dish model: AF-5G23-S45, gain: 23dBi, type: Parabolic
- Dish model(s): AF-5G30-S45/RD-5G30(w/ AF-5G-OMT), gain: 30dBi, type: Parabolic
- Dish model(s): AF-5G34-S45/RD-5G34(w/ AF-5G-OMT), gain: 34dBi, type: Parabolic

DFS Regulatory Regions

Operation in DFS regulatory regions requires an antenna with minimum gain of 23 dBi.

Industry Canada

CAN ICES-3(B)/NMB-3(B)

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.

Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices. This radio transmitter (IC: 6545A- AF5X) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

- Dish model: AF-5G23-S45, gain: 23dBi, type: Parabolic
- Dish model(s): AF-5G30-S45/RD-5G30(w/ AF-5G-OMT), gain: 30dBi, type: Parabolic
- Dish model(s): AF-5G34-S45/RD-5G34(w/ AF-5G-OMT), gain: 34dBi, type: Parabolic

DFS Regulatory Regions

Operation in DFS regulatory regions requires an antenna with minimum gain of 23 dBi.

CAN ICES-3(B)/NMB-3(B)

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.

Les utilisateurs devraient également noter que radars haute puissants sont alloués comme principaux utilisateurs (c'est-à-dire les utilisateurs de priorité) des bandes 5250-5350 MHz et 5650 à 5850 MHz et que ces radars pourraient causer des interférences ou dommages aux dispositifs LAN. Cet émetteur radio (IC: IC: 6545A-AF5X) a été approuvée par Industrie Canada pour l'exploitation avec l'antenne types énumérés ci-dessous avec le gain maximal admissible et requis l'impédance de l'antenne pour chaque type d'antenne indiqué. Types d'antenne non inclus dans cette liste, ayant un gain supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil. Immédiatement suite à la remarque, le fabricant doit fournir une liste de tous les types d'antenne approuvé pour une utilisation avec l'émetteur, ce qui indique le gain maximal d'antenne permis (en dBi) et requis d'impédance pour chacun.

- Parabolique modèle: AF-5G23-S45, gain: 23dBi, type: Parabolique
- Parabolique modèle(s): AF-5G30-S45/RD-5G30(w/ AF-5G-OMT), gain: 30dBi, type: Parabolique
- Parabolique modèle(s): AF-5G34-S45/RD-5G34(w/ AF-5G-OMT), gain: 34dBi, type: Parabolique

Régions Réglementaires DFS

Opération dans les régions réglementaires DFS nécessite une antenne avec un gain minimum de 23 dBi.

RF Exposure Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 126 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.

Les antennes utilisées pour ce transmetteur doivent être installé en considérant une distance de séparation de toute personnes d'au moins 126 cm et ne doivent pas être localisé ou utilisé en conflit avec tout autre antenne ou transmetteur.

Australia and New Zealand



Warning: This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.

Alert Sign (!) Follows CE Marking

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



RoHS/WEEE Compliance Statement



English

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

Deutsch

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltsmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyclen trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

Español

La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.

Français

La directive européenne 2002/96/CE exige que l'équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez acheté le produit.

Italiano

La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

Declaration of Conformity

Česky [Czech]	UBIQUITI NETWORKS tímto prohlašuje, že tento UBIQUITI NETWORKS device, je ve shodě se základními požadavky a dále jím požadovanými 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 dieses UBIQUITI NETWORKS Gerät in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet. (BMW)
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 á UBIQUITI NETWORKS device, er í samræmi við grunnkröfur og árar kröfur, sem gerar 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 ierīce, atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem 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 relevanti li hemm fid-Dirrettiva 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, spĺa základné požiadavky a všetky 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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