



***airFiber*® LTU**

**5 GHz TDD
Point-to-MultiPoint Radio**

Model: AF-LTU

QUICK START GUIDE

Introduction

Thank you for purchasing the Ubiquiti Networks® airFiber® AF-LTU. This Quick Start Guide is designed to guide you through installation and also includes warranty terms.

Package Contents



airFiber AF-LTU



Metal Strap



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



Power Cord



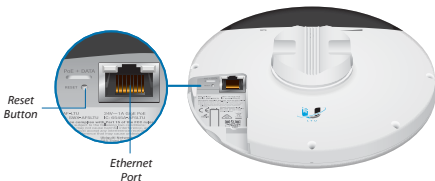
Quick Start Guide

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

Antenna Compatibility

- The AF-LTU is designed for use with the LTU-Extend dish antenna (not included).
- The AF-LTU is also compatible with the following horn antennas (not included):
 - Prism®AP-5-30
 - PrismAP-5-45
 - PrismAP-5-60
 - PrismAP-5-90

Hardware Overview



Ethernet Port This PoE port is used for handling all user traffic and powering the device.

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.

Release Button To detach the AF-LTU from the antenna, rotate the device counterclockwise while depressing the *Release Button*. (To detach the AF-LTU from a horn, rotate the horn instead of the device.)

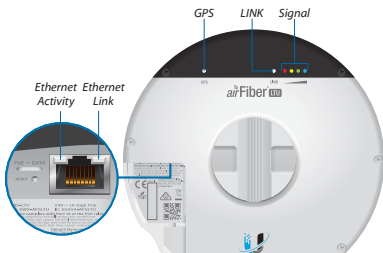


AF-LTU Unmounted (Back View)



AF-LTU Mounted on Antenna

LEDs



Signal 1-4 These LEDs light the following colors when on:



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

Bootup to airOS® When powering on, the *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 solid on to a 2.5 Hz flash. This continues until the AF-LTU is fully booted.

Signal Level Once fully booted, the *Signal 1-4* LEDs act as a bar graph showing how close the AF-LTU is to ideal aiming. This is auto-scaled based on the link range, the antenna gains, and the configured TX power of the remote AF-LTU. 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
GPS	Off	No GPS Synchronization
	Normal Flash*	Non-Operational (Weak Signal)
	On	Operational (Strong Signal)
LINK	Off	RF Off
	Short Flash*	Syncing
	Normal Flash*	Beaconing
	Long Flash*	Registering
	On	Operational
Ethernet Activity	Off	No Ethernet Activity
	Random Flash	Ethernet Activity
Ethernet Link	Off	10/100 Base-T Link or No Ethernet Link
	On	Gigabit Ethernet Link

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

Installation 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
 - (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 RJ45 connectors are required for all wired Ethernet connections.

Installation Overview

We recommend that you configure your paired AF-LTU radios before site installation. The overview below summarizes the installation procedure, and the subsequent sections provide detailed installation information.

- Connect the *Gigabit PoE* adapter to the *Ethernet* port of the AF-LTU and to your computer.
- Configure the AF-LTU.
- At the installation site, install the antenna with the mounted AF-LTU radio (see the antenna's Quick Start Guide for installation instructions).
- Establish and optimize the RF link.

Connecting Power over Ethernet

1. Remove the port cover by lifting up the latch of the cover and sliding the cover out.



2. Remove the rubber gasket from its slot in the housing of the AF-LTU.



3. Connect an Ethernet cable to the *Ethernet* port.



4. Fit the rubber gasket over the Ethernet cable. Then slide the gasket down the cable and reseal it in the slot.



640-00345-01

5. Replace the port cover.

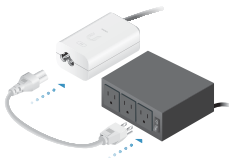


6. Connect the other end of the Ethernet cable to the *POE* port of the *Gigabit PoE* adapter.

! **WARNING:** Use only the included adapter, model **POE-24V-AFX**. Failure to do so can damage the unit and void the product warranty.



7. Connect the *Power Cord* to the adapter's power port. Connect the other end of the *Power Cord* to a power outlet.



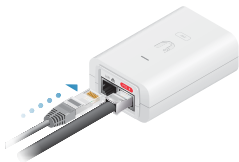
airFiber Configuration

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

- **Wireless Mode** Configure one AF-LTU as the *AP* and the other as the *CPE*.
- **Frequency Setting** The operating *Frequency* must be the same on both the AP and the CPE.

This section also explains how to enable remote access to the airFiber Configuration Interface using the Bluetooth interface of the AF-LTU.

1. Connect an Ethernet cable from your computer to the **LAN** port of the *Gigabit PoE* adapter.



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).

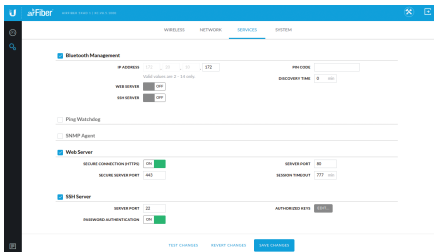


4. The login screen will appear. Enter **ubnt** in the *Username* and *Password* fields. Select your *Country* and *Language*. You must agree to the *Terms of Use* to use the product. Click **Login**.



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

5. If you do not want to enable the Bluetooth interface for remote management, go to step 14.
6. Click the *Settings*  icon and then click the *Services* tab.
7. On the *Services* screen, select **Bluetooth Management** to enable Bluetooth.



Bluetooth Management

IP ADDRESS: 172.20.10.172 (Valid values are 2 - 14 only)

PIN CODE:

DISCOVERY TIME: 0 min

WEB SERVER: ☐ OFF

SSH SERVER: ☐ OFF

☐ Ping Watchdog

☐ SNMP Agent

Web Server

SECURE CONNECTION SETTING: ☒ ON

SERVER PORT: 80

SECURE SERVER PORT: 443

SESSION TIMEOUT: 777 min

SSH Server

SERVER PORT: 22

AUTHORIZED KEYS:

PASSWORD AUTHENTICATION: ☒ ON

TEST CHANGES REVERT CHANGES SAVE CHANGES

8. Specify the radio's Bluetooth *IP Address* by entering its last octet in the range of **2 to 14**. (The range of valid IP addresses is 172.20.10.2 to 172.20.10.14. The subnet is pre-assigned and cannot be changed.)
9. Select **Web Server** if you want mobile devices to have access to the airFiber Configuration Interface via Bluetooth.
10. Select **SSH Server** if you want to enable secure communications on the Bluetooth interface.
11. Enter a numeric **Pin Code** for the Bluetooth link (up to 16 decimal digits).
12. Specify a **Discovery Time** in minutes. This is the length of time that the Bluetooth link will remain discoverable after each system reboot.
13. Click **Save Changes** and wait while the radio reboots.



Note: Following reboot, you will be able to connect to the AF-LTU via Bluetooth using a laptop or a mobile device such as a smartphone. The radio's Bluetooth link will be named: **AirFiber 5MX-xxxxxxx**, where **xxxxxxx** are six hexadecimal characters.

14. Click the **Wireless** tab.

15. Configure the *Basic Wireless Settings*:

- a. For one AF-LTU, select **AP PTP** as the *Wireless Mode*. For the other AF-LTU, select **CPE PTP** as the *Wireless Mode*.
- b. Enter a name in the *Link Name* field. This should be the same on both the AP and the CPE.
- c. Select your *Country*.



Note: The *Country* setting for U.S. product versions is restricted to a choice of Canada, Puerto Rico, or the U.S. to ensure compliance with FCC/IC regulations.

- d. Change the *Distance Scale* to be larger than the anticipated distance between the AP and CPE.
- e. If needed, change the *Channel Bandwidth*, *Output Power* (EIRP), *Antenna Gain*, *Cable Loss*, *RF RX Target Level* (AP only), *Max TX Modulation*, and *Auto TX Modulation* settings.

16. Configure the *Frequency Settings*:

- a. Set the desired *Frequency*. It needs to be the same for both the AP and the CPE.
- b. On the AP, set the *Alternative Frequencies*, which will be used instead if DFS events are detected on the original frequency. Up to three alternative frequencies can be specified. The AP will automatically notify the CPEs of these alternative frequencies.

17. Configure the *Wireless Security*:

- a. Select **WPA2-AES** for the *Security mode*.
- b. Select **PSK** for the *WPA Authentication mode*.
- c. In the *WPA Preshared Key* field, enter a combination of alphanumeric characters (0-9, A-Z, or a-z).



Note: Currently only ASCII mode is supported.

18. Configure the *Advanced* wireless settings:

- a. Select the *CZ Len* (contention zone length). This should be the same for both the AP and the CPE.
- b. Select the *Duty Cycle* on the AP.
- c. Select the *Frame Length*. This should be the same on both the AP and the CPE.

19. Click **Save Changes**.

20. Configure each airFiber radio with a unique IP address for the *Ethernet* port:

- a. Click the **Network** tab.
- b. For the *DLAN IP Address* option:
 - **DHCP** Keep the default, *DHCP*, to use DHCP reservation on your router to assign a unique *IP Address*. You can also specify the *DHCP Fallback IP* and *DHCP Fallback Netmask* to use in case the radio fails to acquire an IP from the DHCP server.
 - **Static** Change the *IP Address*, *Netmask*, and other settings to make them compatible with your network.
- c. Enable the *Management VLAN* setting if needed.
- d. Click **Save Changes**.

Repeat the instructions in the *airFiber Configuration* section on the other AF-LTU radio.

For details on the airFiber Configuration Interface, refer to the airFiber AF-LTU User Guide, available at:

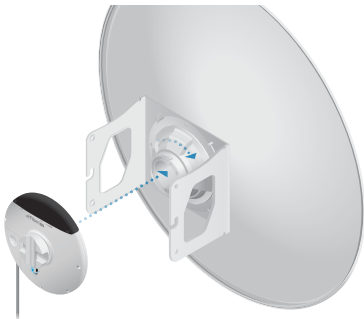
www.ubnt.com/download/airfiber

Hardware Installation

Mount to an LTU-Extend Antenna

Follow the instructions in this section to mount the AF-LTU to an airFiber LTU-Extend antenna.

1. Holding the AF-LTU radio with the *Port Cover* facing you, insert it into the *Rear Housing* and turn clockwise until it locks in place.



2. Finish mounting the antenna assembly by following the instructions in the antenna's *Quick Start Guide*.
3. Connect the power using one of the following options:
 - Using the included *Gigabit PoE Adapter*: Go to *Connecting to the PoE Adapter*.
 - Using a separate PoE switch: Connect the Ethernet cable from the airFiber radio's *Ethernet* port to a PoE-enabled Ethernet port on the switch.



WARNING: The switch port must comply with the power specifications listed in the *Specifications* section of this Quick Start Guide.

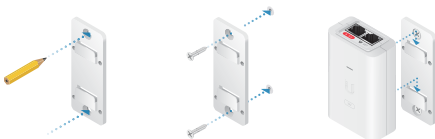
Connecting to the PoE Adapter

1. Connect the Ethernet cable from the AF-LTU to the **POE** port on the *PoE Adapter*.
2. Connect an Ethernet cable from your LAN to the **LAN** port on the *PoE Adapter*.
3. Connect the *Power Cord* to the *PoE Adapter*, and then plug the *Power Cord* into a power outlet.



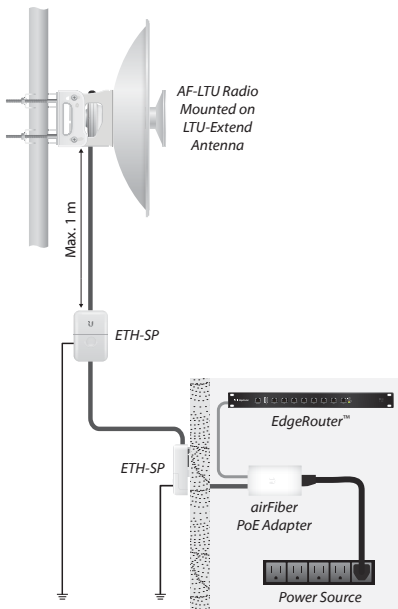
Mounting the PoE Adapter (Optional)

1. Remove the *PoE Mounting Bracket* from the adapter, place the bracket at the desired location, and mark the two holes.
2. Pre-drill the holes if necessary, and secure the bracket using two fasteners (not included).
3. Align the adapter's slots with the tabs of the *PoE Mounting Bracket*, and then slide the adapter down.



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

Tip

- 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

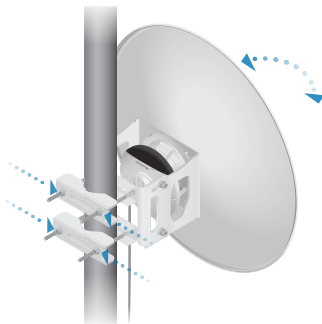
Position the *AP* antenna to illuminate the desired area based on topology and antenna beamwidth. The following section features the LTU-Extend antenna:

 **Note:** The *CPE* does not transmit any RF signal until it detects transmissions from the *AP*.

1. Visually aim the *CPE* at the *AP*. To adjust the *CPE*'s position, adjust the azimuth and the elevation.

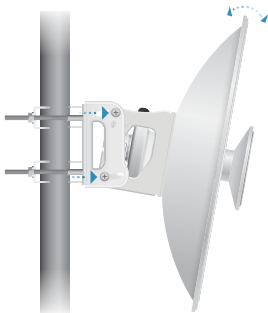
Adjust the azimuth:

- a. Loosen the four *Flange Nuts* on the *Carriage Bolts*.
- b. Rotate the antenna to point towards the other end of the link.
- c. Tighten the four *Flange Nuts*.



The elevation angle may be adjusted $\pm 15^\circ$. Adjust the elevation angle:

- d. Loosen the four *Hex Bolts* on both sides of the antenna.
- e. Pivot the antenna to the desired elevation.
- f. Tighten the four *Hex Bolts*.



2. Check to see if a link is established. Ensure that the *LINK* LED is solidly lit white and the *Signal* LEDs of the *CPE* are displaying signal levels.



3. Aim the *CPE* at the *AP* to achieve the strongest signal level on the *AP*.



Note: Refer to the *Signal LEDs* section for details on the signal values.



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

4. Repeat step 3 until you achieve an optimal link, with all four *Signal* LEDs solidly lit. This ensures the best possible data rate between the airFiber radios.
5. Lock the alignment on both airFiber antennas by tightening all the nuts and bolts.
6. Observe the *Signal* LEDs of the *CPE* 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 the *CPE* antenna again, and retighten the nuts and bolts.

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 UniFiber web interface for configuring a wireless device. The interface is divided into several sections: Basic Wireless Settings, Frequency Settings, Wireless Security, and Advanced. A blue line highlights the following fields:

- Basic Wireless Settings:**
 - WIRELESS MODE: AP PTP/STP
 - COUNTRY: United States
 - DISTANCE SCALE: 1 Mile (1.6km)
 - CHANNEL BANDWIDTH: 20 MHz
 - OUTPUT POWER (ERP): 25 dBm
 - ANTENNA GAIN: 2.1 dBi
 - CABLE LOSS: 0 dB
 - RF EX THRESHOLD LEVEL: -90 dBm
 - WAVE TO MODULATION: QAM 1024 (13db)
 - AUTO TO MODULATION: ON
- Frequency Settings:**
 - FREQUENCY: 5800 MHz
 - ALTERNATIVE FREQUENCIES: 5800 MHz, 5800 MHz, 5800 MHz
 - Valid Frequencies: 5140 - 5240 MHz, 5250 - 5340 MHz, 5400 - 5712 MHz, 5720 - 5840 MHz
- Wireless Security:**
 - SECURITY: WPA2-AES
 - WPA AUTHENTICATION: PSK
 - WPA PRE-Shared KEY: *****
- Advanced:**
 - CEUON: 10
 - DUTY CYCLE: 50%
 - FRAME LENGTH: 2MB
 - OPLOCK/KEY: OFF

At the bottom of the interface, there are buttons for "TEST CHANGES", "REVERT CHANGES", and "SAVE CHANGES".

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

Specifications

AF-LTU	
Dimensions	155 x 155 x 65 mm (6.10 x 6.10 x 2.56")
Weight	0.54 kg (1.20 lb)
Operating Frequency	4900-6200 MHz
Operating RF Bandwidth	10/20/30/40/50 MHz
Networking Interface Data Port Configuration Port	(1) 10/100/1000 Ethernet Port Bluetooth
LEDs	(4) Signal Strength, GPS, RF Link, Ethernet Link, Ethernet Activity
Max. Power Consumption	17W
Power Supply	24V, 1A Gigabit PoE Adapter (Included)
Power Method	Proprietary 24V Passive PoE
Supported Voltage Range	24 to 50VDC
Operating Temperature	-40 to 55° C (-40 to 131° F)
Mounting	Integrated Pole-Mount (Included)
Certifications	CE, FCC, IC

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 a 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.

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 ID: SWX-AF5LTU 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.

Antenna Information: Dish antenna, Gain: 27 dBi; Horn antennas, Gain: 13dBi, 19 dBi

ISED Canada

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

This device complies with ISED 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.

This radio transmitter (IC: 6545A-AF5LTU) has been approved by ISED 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.

Antenna Information: Dish antenna, Gain: 27 dBi; Horn antenna, Gain: 19 dBi

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

Le présent appareil est conforme aux CNR d'ISDE Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage;
2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Le présent émetteur radio (IC : 6545A-AF5LTU) a été approuvé par ISDE 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.

Informations d'antenne : Antenne parabolique, Gain : 27 dBi; Antenne corne, Gain : 19 dBi

RF Exposure Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 130 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 130 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.



Country List



AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU
IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SE	SI	SK	UK

BFWA (Broadband Fixed Wireless Access) members noted in blue



Note: This device meets Max. TX power limit per ETSI regulations.

The following apply to products that operate in the 5 GHz frequency range:



Note: This device is restricted to indoor use only when operating in the 5150 - 5350 MHz frequency range within all member states.



Note: All countries listed may operate at 30 dBm. BFWA member states noted in blue may operate at 36 dBm.



Note: Operation in the 5.8 GHz frequency band is prohibited in BFWA member states. Other countries listed may use the 5.8 GHz frequency band.

RoHS/WEEE Compliance Statement



English

European Directive 2012/19/EU 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 2012/19/EU 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 Recyceln 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 2012/19/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 2012/19/UE 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 2012/19/UE 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

български [Bulgarian] С настоящото UBIQUITI NETWORKS декларира, че този тип радиосъоръжение AF-LTU е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: **www.ubnt.com/compliance**

Hrvatski [Croatian] UBIQUITI NETWORKS ovime izjavljuje da je radijska oprema tipa AF-LTU u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: **www.ubnt.com/compliance**

Čeština [Czech] Tímto UBIQUITI NETWORKS prohlašuje, že typ rádiového zařízení AF-LTU je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: **www.ubnt.com/compliance**

Dansk [Danish] Hermed erklærer UBIQUITI NETWORKS, at radioudstyrstypen AF-LTU er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: **www.ubnt.com/compliance**

Nederlands [Dutch] Hierbij verklaar ik, UBIQUITI NETWORKS, dat het type radioapparatuur AF-LTU conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: **www.ubnt.com/compliance**

English Hereby, UBIQUITI NETWORKS declares that the radio equipment type AF-LTU is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: **www.ubnt.com/compliance**

Eesti keel [Estonian] Käesolevaga deklareerib UBIQUITI NETWORKS, et käesolev raadioseadme tüüp AF-LTU vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: **www.ubnt.com/compliance**

Suomi [Finnish] UBIQUITI NETWORKS vakuuttaa, että radiolaitetyyppi AF-LTU on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: **www.ubnt.com/compliance**

Français [French] Le soussigné, UBIQUITI NETWORKS, déclare que l'équipement radioélectrique du type AF-LTU est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: **www.ubnt.com/compliance**

Deutsch [German] Hiermit erklärt UBIQUITI NETWORKS, dass der Funkanlagentyp AF-LTU der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: **www.ubnt.com/compliance**

Ελληνικά [Greek] Με την παρούσα ο/η UBIQUITI NETWORKS, δηλώνει ότι ο ραδιοεξοπλισμός AF-LTU πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: **www.ubnt.com/compliance**

Magyar [Hungarian] UBIQUITI NETWORKS igazolja, hogy a AF-LTU típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: **www.ubnt.com/compliance**

Íslenska [Icelandic] Hér með lýsir UBIQUITI NETWORKS yfir því að AF-LTU er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU. Fullur texti ESB samræmisýfirlýsing er að finna á eftirfarandi netfangi: **www.ubnt.com/compliance**

Italiano [Italian] Il fabbricante, UBIQUITI NETWORKS, dichiara che il tipo di apparecchiatura radio AF-LTU è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: **www.ubnt.com/compliance**

Latvīų kalba [Latvian] Ar šo UBIQUITI NETWORKS deklarē, ka radioiekārta AF-LTU atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: **www.ubnt.com/compliance**

Lietuvių kalba [Lithuanian] Aš, UBIQUITI NETWORKS, patvirtinu, kad radijo įrenginių tipas AF-LTU atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: **www.ubnt.com/compliance**

Malti [Maltese] B'dan, UBIQUITI NETWORKS, niddikjara li dan it-tip ta' taghmir tar-radju AF-LTU huwa konformi mad-Direttiva 2014/53/UE. Id-dikjarazzjoni tal-konformità tista' tiġi kkonsultata minn www.ubnt.com/compliance

Norsk [Norwegian] UBIQUITI NETWORKS erklærer herved at utstyret AF-LTU er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EU. Den fulle teksten til EU-samsvarserklæringen er tilgjengelig på følgende internettadresse: www.ubnt.com/compliance

Polski [Polish] UBIQUITI NETWORKS niniejszym oświadczam, że typ urządzenia radiowego AF-LTU jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.ubnt.com/compliance

Português [Portuguese] O(a) abaixo assinado(a) UBIQUITI NETWORKS declara que o presente tipo de equipamento de rádio AF-LTU está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: www.ubnt.com/compliance

Română [Romanian] Prin prezenta, UBIQUITI NETWORKS declară că tipul de echipament radio AF-LTU este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.ubnt.com/compliance

Slovenčina [Slovak] UBIQUITI NETWORKS týmto vyhlasuje, že rádiové zariadenie typu AF-LTU je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: www.ubnt.com/compliance

Slovenščina [Slovenian] UBIQUITI NETWORKS potrjuje, da je tip radijske opreme AF-LTU skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.ubnt.com/compliance

Español [Spanish] Por la presente, UBIQUITI NETWORKS declara que el tipo de equipo radioeléctrico AF-LTU es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.ubnt.com/compliance

Svenska [Swedish] Härmed försäkrar UBIQUITI NETWORKS att denna typ av radioutrustning AF-LTU överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: www.ubnt.com/compliance

Online Resources

Website www.ubnt.com

Support help.ubnt.com

Community community.ubnt.com

Downloads downloads.ubnt.com



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