UBIQUITI®
NETWORKS

NanoStation® AC loco

5 GHz airMAX® ac Radio

Model: NS-5ACL

QUICK START GUIDE

Introduction

Thank you for purchasing the Ubiquiti Networks® NanoStation® 5AC loco. This Quick Start Guide is designed to guide you through the installation and also includes warranty terms.

Package Contents

NanoStation loco

Zip Tie

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.

Installation Requirements

- Shielded Category 5 (or above) cabling with drain wire should be used for all outdoor wired Ethernet connections and should be grounded through the AC ground of the PoE.

  We recommend that you protect your networks from harmful outdoor environments and destructive ESD events with industrial-grade, shielded Ethernet cable from Ubiquiti Networks. For more details, visit **www.ubnt.com/toughcable**

- Surge protection should be used for all outdoor installations. We recommend that you use two Ethernet Surge Protectors, model ETH-SP, one near the NanoStation loco and the other at the entry point to the building. The ETH-SP will absorb power surges and safely discharge them into the ground.

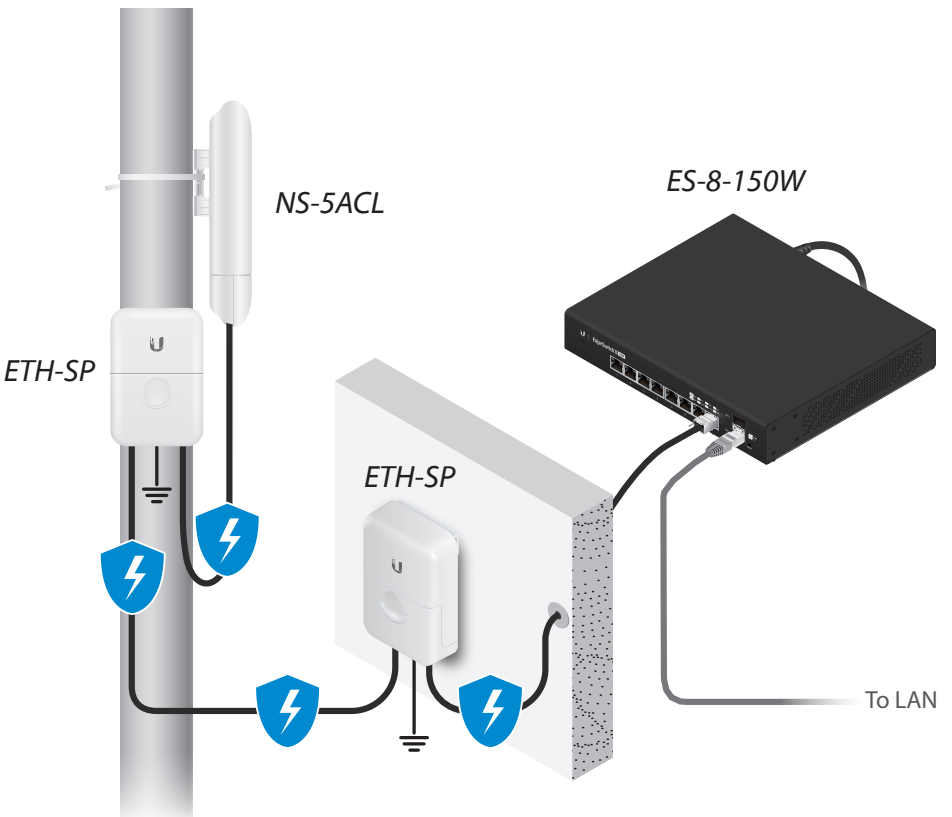
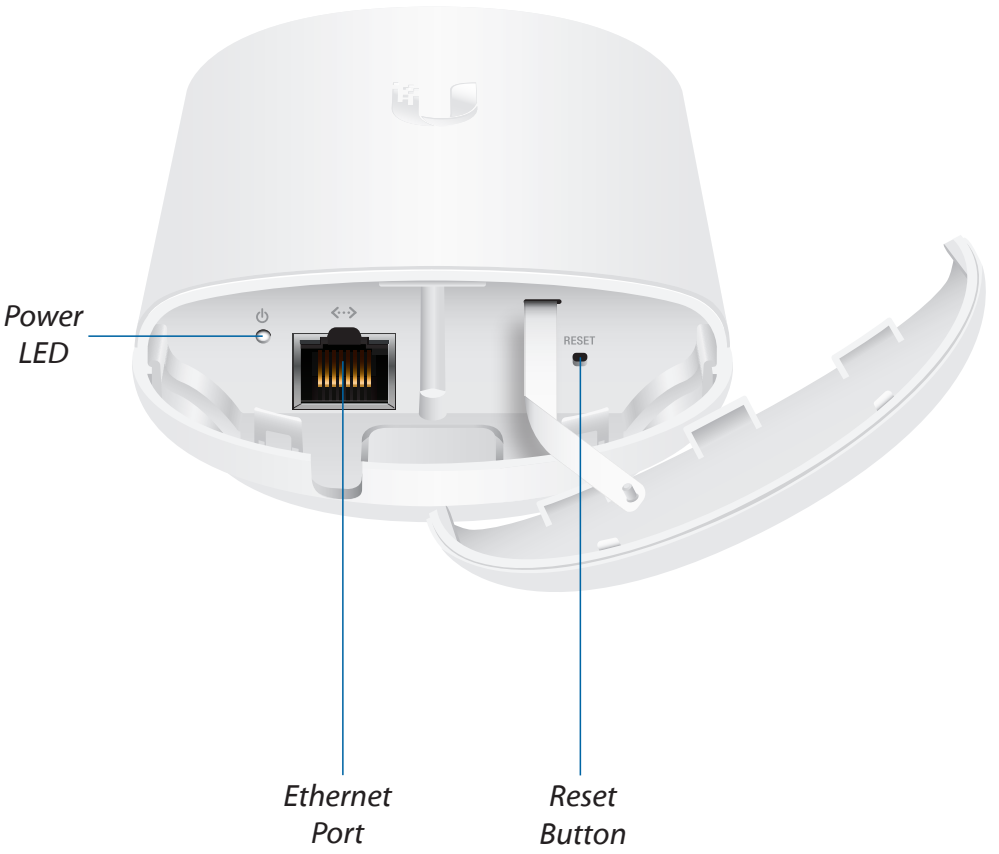


Diagram Showing Use of Ethernet Surge Protectors

Hardware Overview

Back View

Port View



Power LED The Power LED will light blue when the device is connected to a power source.

Ethernet Port 10/100/1000 Ethernet port used to connect the power and should be connected to the LAN and DHCP server.

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

Hardware Installation

1. Remove the port cover by pressing down on the center of the cover and sliding the cover out.

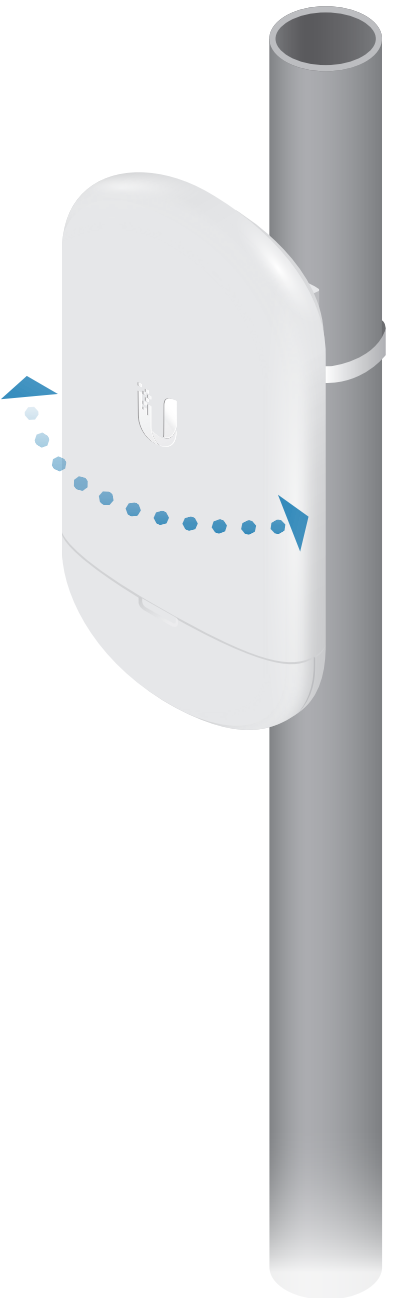
2. Connect an Ethernet cable to the *Ethernet Port*.

3. Replace the port cover.

Pole Mount

1. Position the NanoStation loco at the desired location on a pole and insert a *Zip Tie* into the slot of the *Mounting Bracket*.

2. Align the front of the NanoStation loco toward the other end of the wireless link. Then tighten the *Zip Tie* around the pole.



3. Connect the Ethernet cable from the NanoStation loco's *Ethernet* port to a PoE-enabled Ethernet port on a switch.

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

Accessing airOS via Wi-Fi

Verify connectivity in the airOS® Configuration Interface. There are two methods, the UNMS™ app and Web Portal. Both are available for 15 minutes immediately after you power on the NanoStation loco. If necessary, you can power cycle the NanoStation loco to re-enable its Wi-Fi.

Proceed to the appropriate instructions:

UNMS App

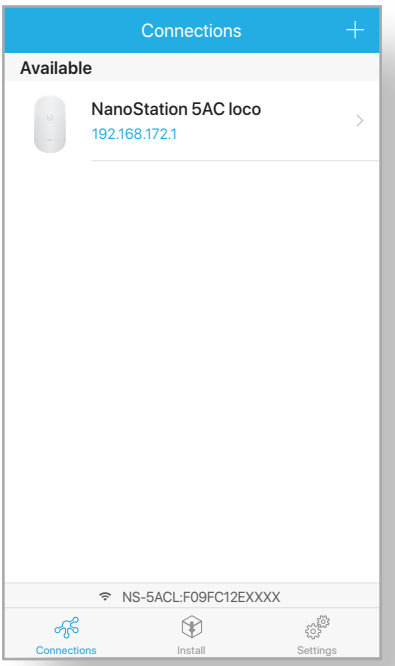
1. Download the UNMS app from the App Store (iOS) or Google Play™ (Android).

2. Connect your device's Wi-Fi to the NanoStation loco SSID named: **NS-5ACL:<MAC Address>**

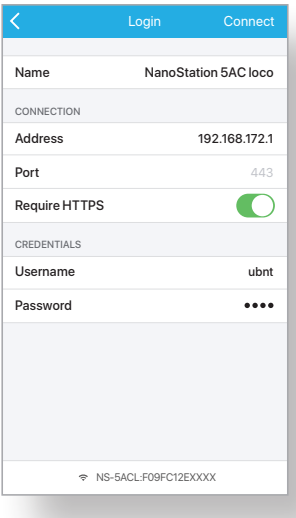
   Note: Ensure that DHCP is enabled on your Wi-Fi adapter.

3. Launch the app.

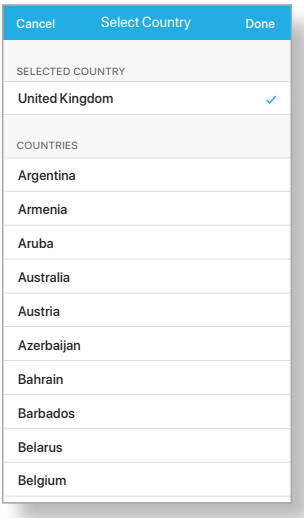
4. Tap the NanoStation loco on the *Connections* screen.



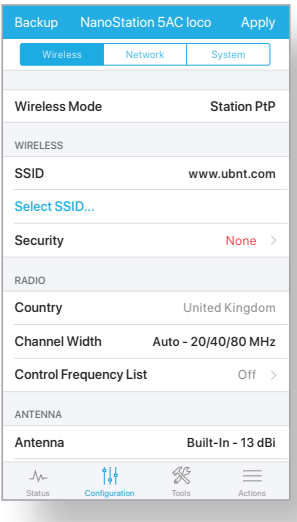
5. Tap **Connect** on the *Login* screen.



6. Select your *Country* and tap **Done**.



7. Customize your settings as needed.



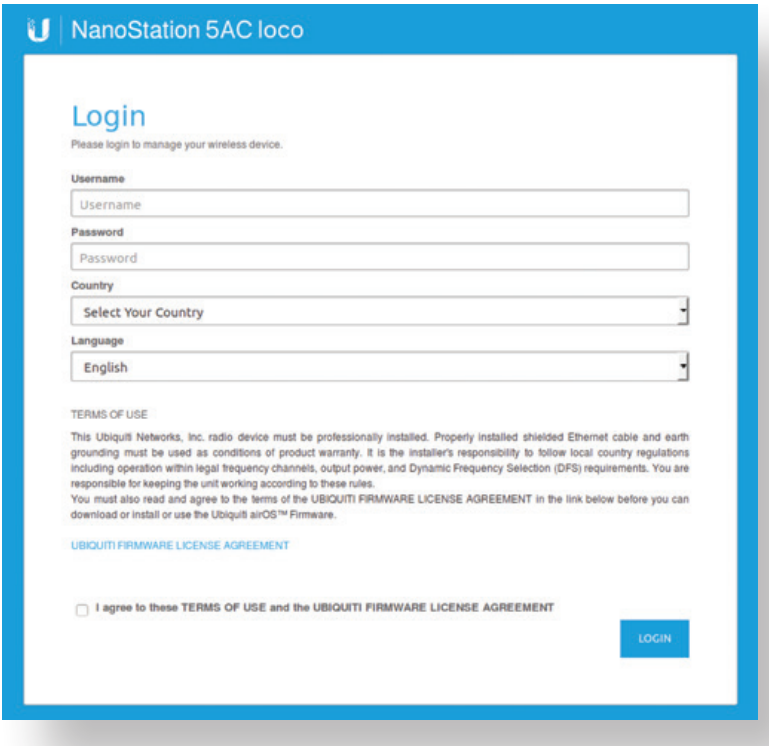
Web Portal

1. Connect your device's Wi-Fi to the NanoStation loco SSID named: **NS-5ACL:<MAC Address>**

   Note: Ensure that your Wi-Fi connection has DHCP enabled.

2. Launch a web browser and go to: **http://setup.ubnt.com**

3. 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**.

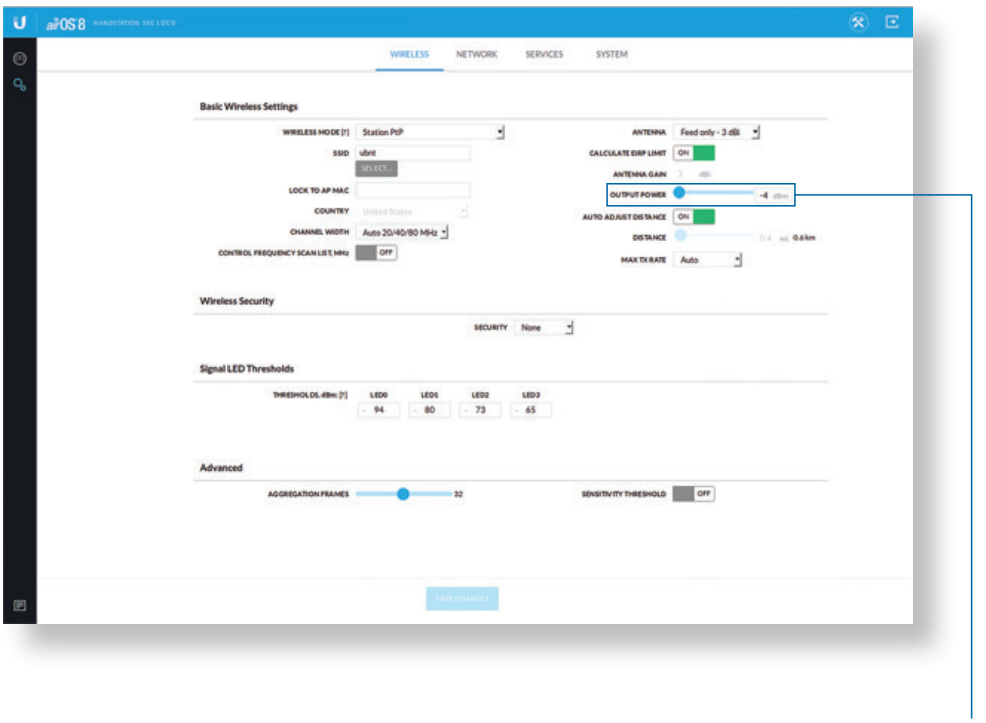


   Note: The *Country* setting for U.S. product versions is restricted to a choice of Canada, Puerto Rico, or the U.S. to ensure compliance with FCC/IC regulations.

The airOS Configuration Interface will appear, allowing you to customize your settings as needed. For additional details on the airOS Configuration Interface, refer to the User Guide available at **www.ubnt.com/download/airmax**

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 *Output Power* field is provided to the professional installer to assist in meeting regulatory requirements.

Specifications

NS-5ACL	
Dimensions	179 x 77.5 x 59.1 mm (7.05 x 3.05 x 2.33")
Weight	180 g (6.35 oz)
Processor	MIPS 74K
Memory	DDR2 64 MB
Antenna Gain	13 dBi
Networking Interface	10/100/1000 Mbps Ethernet Port
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)
Power Supply	24V, 0.5A Gigabit PoE Supply*
Max. Power Consumption	8.5W
Supported Voltage Range	24V ±10%
ESD/EMP Protection	±24kV Contact / Air
Operating Temperature	-40 to 70° C (-40 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

* Not included with the NS-5ACL.

Operating Frequency (MHz)		
Worldwide	5150 - 5875	
USA	U-NII-1: 5150 - 5250	U-NII-3: 5725 - 5850

Management Radio (MHz)	
Worldwide	2412 - 2472
USA	2412 - 2462

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.

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**

Disclaimer

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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.

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.

This radio transmitter (FCC ID: SWX-NS5ACLW) has been approved by FCC.

RF Exposure Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 25 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.

Australia and New Zealand

Warning: This is a Class A 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.

CE

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 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.