UBIQUITI®
NETWORKS



NanoStation® AC

5 GHz airMAX® AC CPE with Wi-Fi Management Radio

Model: NS-5AC

QUICK START GUIDE

Introduction

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

Package Contents



NanoStation



Wall Mount Bracket



Screws
(Qty. 2)



Screw Anchors
(Qty. 2)



Zip Ties
(Qty. 2)



Gigabit PoE Adapter
(24V, 0.5A)



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.

Installation Requirements

- Phillips screwdriver for wall-mounting
- 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 and the other at the entry point to the building. The ETH-SP will absorb power surges and safely discharge them into the ground.

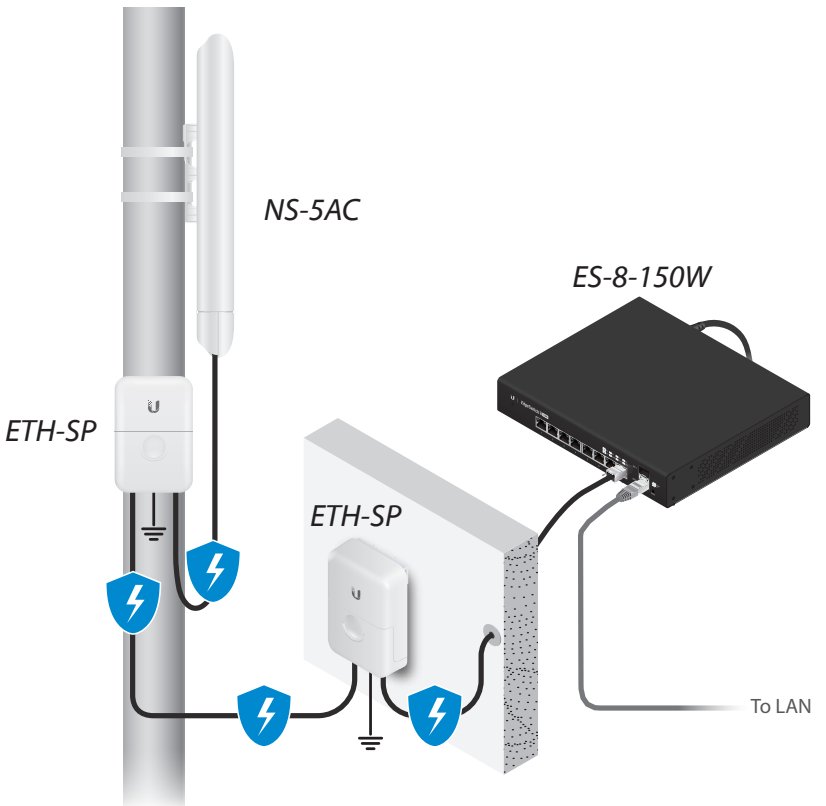


Diagram Showing Use of Ethernet Surge Protectors

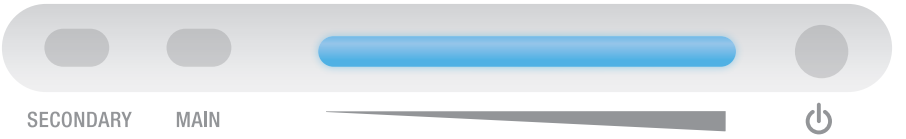
Hardware Overview

Side View



Mounting Bracket

LED Panel



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

Main

Main Ethernet The LED will light steady blue when an active Ethernet connection is made to the *Main/LAN* port and flash when there is activity.

Secondary

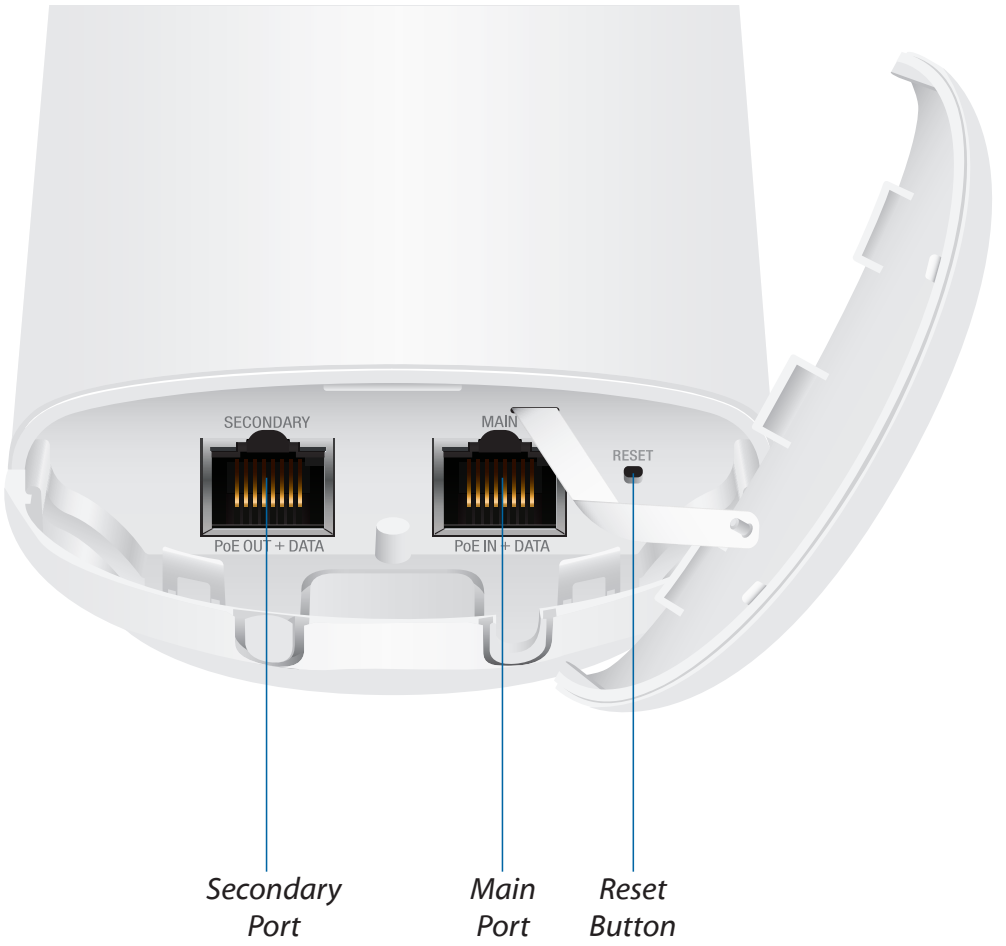
Secondary Ethernet The LED will light steady blue when an active Ethernet connection is made to the *Secondary* port and flash when there is activity.

Signal In airOS®, you can modify the threshold value for the wireless signal strength LEDs on the *Wireless* tab under *Signal LED Thresholds*. The LED will light when the wireless signal strength is equal to or greater than the LED's threshold value. The default threshold values for these LEDs are shown below:



-94 dBm *-80 dBm* *-73 dBm* *-65 dBm*

Ports



Secondary 10/100/1000 Ethernet port used for bridging and supports software-configurable PoE passthrough.

Main 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 is powered on.

640-00313-07

Hardware Installation

1. Press the *Port Cover Release Button* located on the back of the NanoStation and slide the cover off.



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



3. Replace the port cover.

Pole Mount

1. Position the NanoStation at the desired location on a pole, aligning its front toward the other end of the wireless link. Insert the *Zip Tie* into the slot of the *Mounting Bracket* and tighten around the pole.



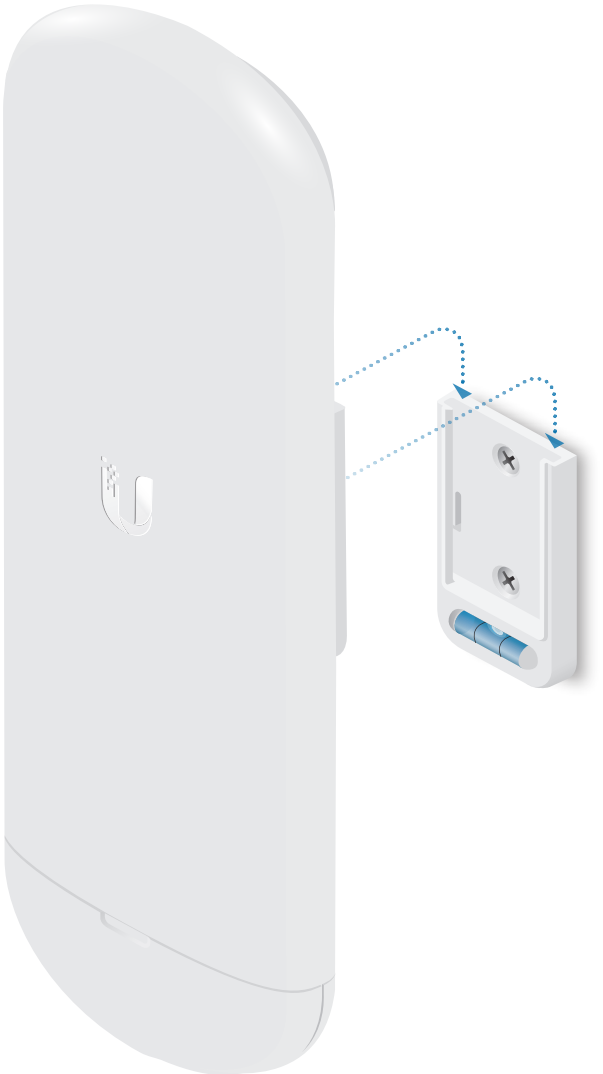
2. Insert the second *Zip Tie* into the remaining slot of the *Mounting Bracket* and tighten around the pole for added security.



Wall Mount

The included *Wall Mount Bracket* allows the NanoStation to be mounted on a wall or flat surface using the *Screws* that came with the NanoStation.

1. Secure the *Wall Mount Bracket* to the wall using the two *Screws*. Depending on the type of wall material, you may use the included *Screw Anchors* for additional stability.
2. Attach the NanoStation to the wall by aligning it with the *Wall Mount Bracket* and sliding the *Mounting Bracket* down into the slot of the bracket until it is secure.



Connecting Power

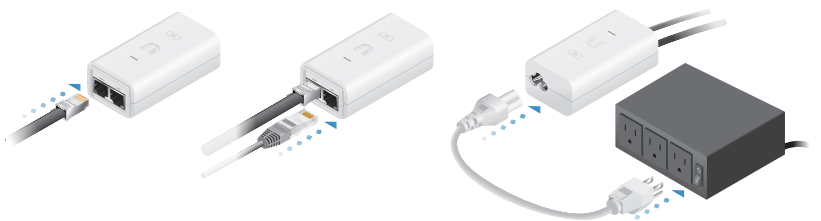
Connect the power using one of the following options:

- Using the included *Gigabit PoE Adapter*: Go to *Connecting to the PoE Adapter*.
- Using a separate PoE switch: Connect the Ethernet cable from the device's *Main* 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.

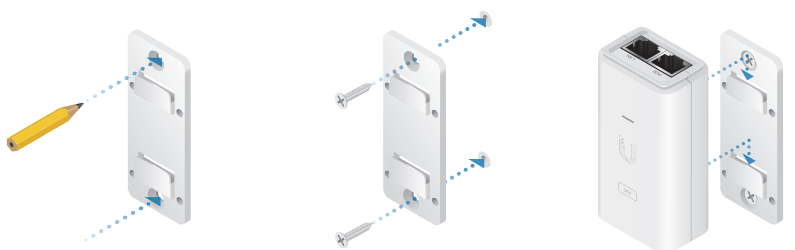
Connecting to the PoE Adapter

1. Connect the Ethernet cable from the device to the **POE** port of the *PoE Adapter*.
2. Connect an Ethernet cable from your LAN to the **LAN** port of the *PoE Adapter*.
3. Connect the *Power Cord* to the adapter's power port. Connect the other end of the *Power Cord* to 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.



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. If necessary, you can power cycle the NanoStation to re-enable its Wi-Fi.

Proceed to the appropriate instructions:

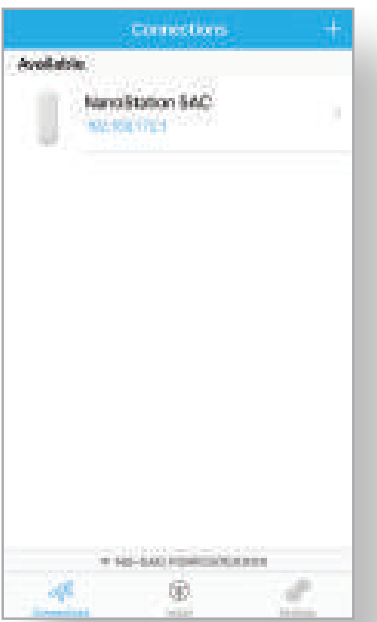
UNMS App

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

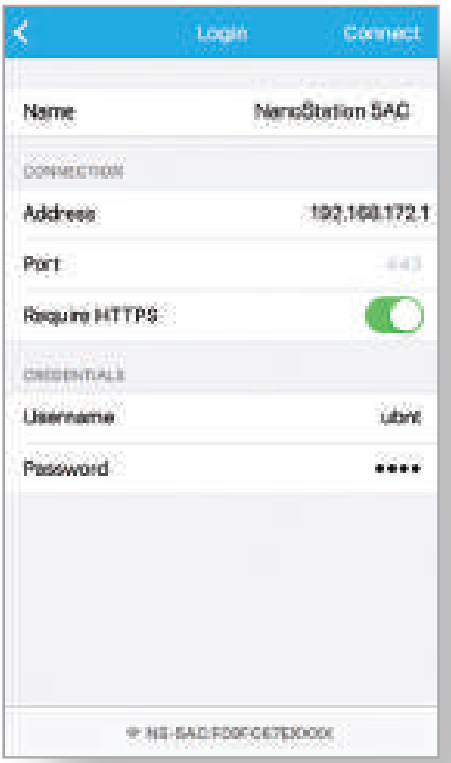
2. Connect your device's Wi-Fi to the NanoStation SSID named: **NS-5AC:<MAC Address>**

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

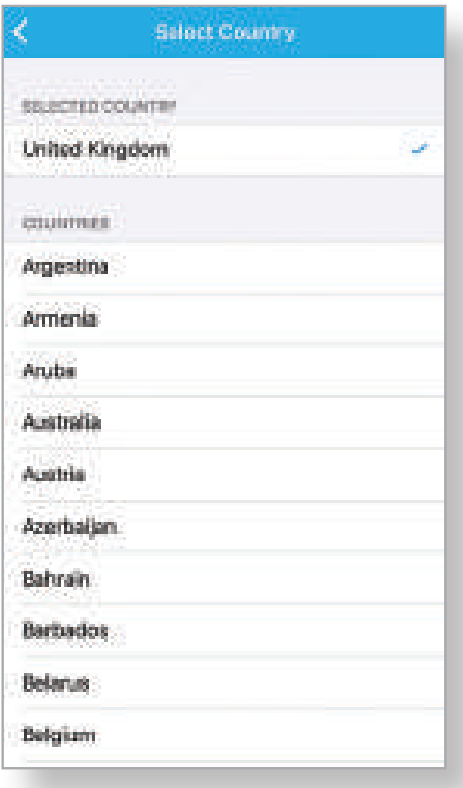
3. Launch the app.
4. Tap the NanoStation on the *Connections* screen.



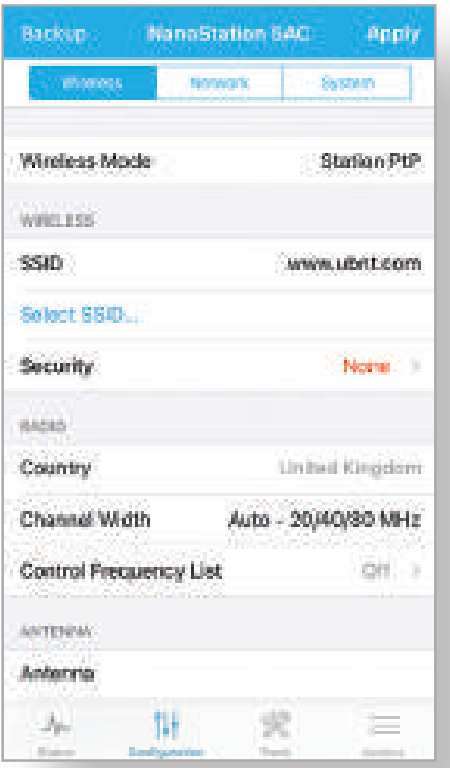
5. Tap **Connect** on the *Login* screen.



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



7. Customize your settings as needed.



Web Portal

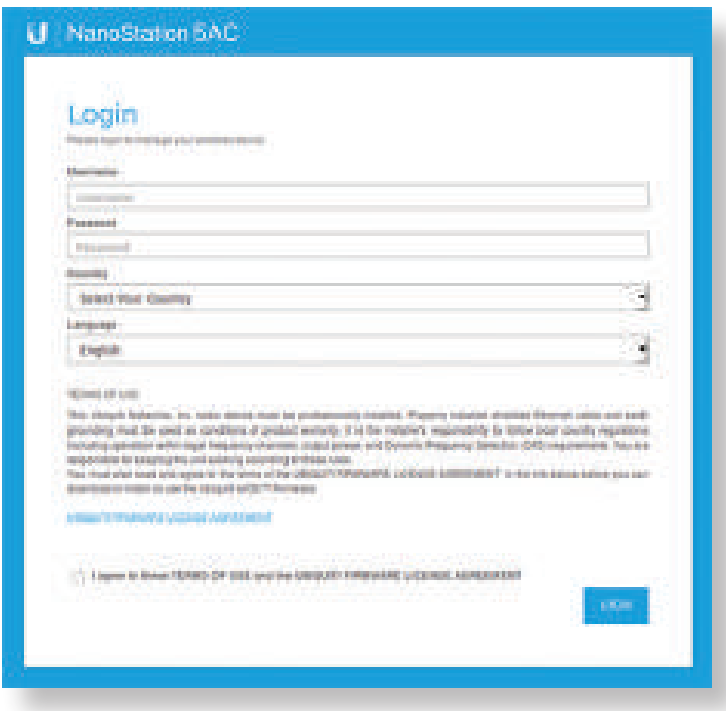
1. Connect your device's Wi-Fi to the NanoStation SSID named: **NS-5AC:<MAC Address>**

   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**.

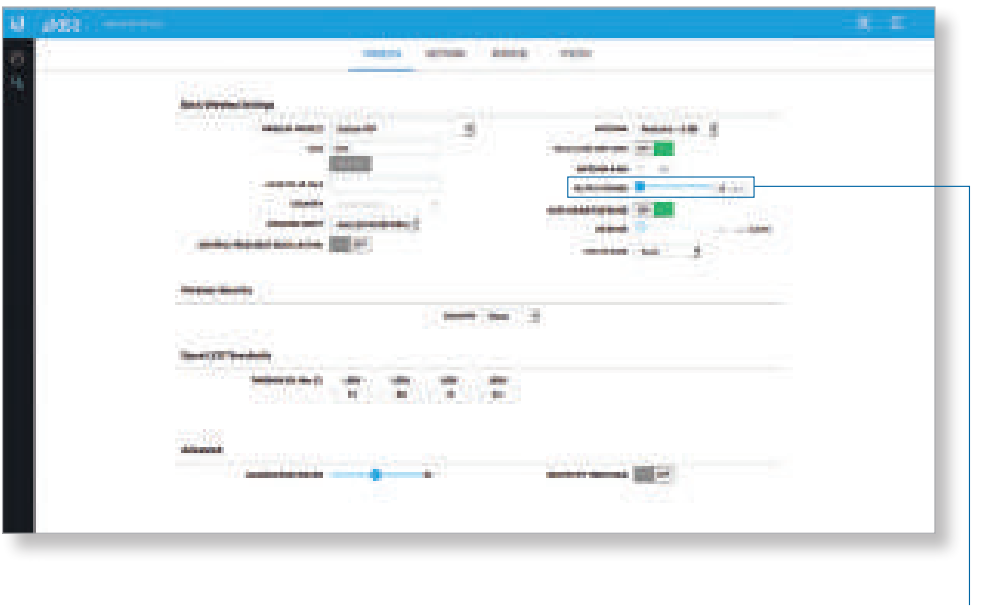


   Note: The *Country* setting for U.S. product versions is restricted to a choice of Canada, Puerto Rico, or the U.S. to ensure compliance with FCC/IC regulations.

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-5AC	
Dimensions With Mount Without Mount	 257 x 84 x 30 mm (10.12 x 3.31 x 1.18") 257 x 84 x 41 mm (10.12 x 3.31 x 1.61")
Weight	233 g (8.22 oz)
Gain	16 dBi
Max. Power Consumption	9W
Networking Interface	(2) 10/100/1000 Ethernet Ports
LEDs	Power, ETH1, ETH2, (4) Signal Strength
Power Supply	24VDC, 0.5A Gigabit PoE Adapter
Power Method	802.3af or Passive PoE (Pairs 4, 5+; 7, 8 Return)
Supported Voltage Range	24V ±10%
Mounting	Pole and Wall Mounting Kits Included
ESD/EMP Protection	±24 kV Contact/Air
Operating Temperature	-40 to 70° C (-40 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

Operating Frequency (MHz)				
Worldwide	5150 - 5875			
US/CA	U-NII-1 5150 - 5250	U-NII-2A 5250 - 5350	U-NII-2C 5470 - 5725	U-NII-3 5725 - 5850

Management Radio (MHz)	
Worldwide	2412 - 2472
US/CA	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.
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

www.ubnt.com/support/warranty/

The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

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 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-NS5AC) has been approved by FCC.

ISED Canada

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

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-NS5AC) has been approved by ISED Canada.

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

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-NS5AC) a été approuvé par ISDE Canada.

RF Exposure Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 33 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 33 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 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.

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 Haushaltmüll 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU. Fullur texti ESB samræmisyfirlýsing er að finna á eftirfarandi netfangi: **www.ubnt.com/compliance**

Italiano [Italian] Il fabbricante, UBIQUITI NETWORKS, dichiara che il tipo di apparecchiatura radio NS-5AC 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**

Latviešu valoda [Latvian] Ar šo UBIQUITI NETWORKS deklarē, ka radioiekārta NS-5AC 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 NS-5AC 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' tagħmir tar-radju NS-5AC 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 NS-5AC 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 oświadcza, że typ urządzenia radiowego NS-5AC 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 NS-5AC 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 echipamente radio NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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 NS-5AC 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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