airMAX® Sector
2.4 GHz 2x2 MIMO BaseStation Sector Antenna
Model: AM-2G16-90

Quick Start Guide
Introduction

Thank you for purchasing the Ubiquiti Networks™ airMAX® 2.4 GHz 2x2 MIMO BaseStation Sector Antenna. This Quick Start Guide is designed to guide you through the installation of the antenna. This Quick Start Guide also includes the warranty terms and is for use with the airMAX Sector Antenna, model AM-2G16-90.

Package Contents

Antenna

Protective Shroud

U-Brackets (Qty. 2)

Pole Brackets (Qty. 2)

Pole Clamps (Qty. 2)

Carriage Bolts (M8x135, Qty. 4)

Serrated Flange Bolts (M8x20, Qty. 4)

Serrated Flange Nuts (M8, Qty. 8)

RF Cables (Qty. 2)

Quick Start Guide

Products may be different from pictures and are subject to change without notice.

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 customer’s responsibility to follow local country regulations, including operation within legal frequency channels, output power, and Dynamic Frequency Selection (DFS) requirements.
Installation Requirements

- Rocket™ M2 (sold separately)
- 12 mm and 13 mm wrenches
- Shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the PoE.

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

Hardware Overview

![Diagram showing various parts of the installation process including Mounting Lugs, Bubble Level, RF Connectors, Rocket Mount Bracket, Rocket/Shroud Lock Release Lever, Protective Shroud, U-Bracket, Slotted U-Bracket, Back View, Assembled Side View Before Pole-Mounting.](diagram.png)
Hardware Installation

1. Attach the *RF Cables* to the connectors labeled **Chain 0** and **Chain 1** on the Rocket.

2. Attach the Rocket to the *Rocket Mount Bracket*.
   a. Align the mounting tabs on the back of the Rocket with the four mounting slots on the bracket.
   b. Slide the Rocket down until it locks into place.
3. Connect the other ends of the RF Cables to the RF Connectors on the antenna.

4. Slide the Protective Shroud down over the Rocket until it locks onto the Rocket Mount Bracket.

Note: If you have difficulty locking the shroud into place, try adjusting the placement of the RF Cables.
5. Attach the *U-Brackets* to the antenna:

   a. Secure the *Slotted U-Bracket* to the upper *Mounting Lugs* of the antenna using two *Serrated Flange Nuts*.

   b. Secure the other *U-Bracket* to the lower *Mounting Lugs* of the antenna using two *Serrated Flange Nuts*.

   **Note:** Orient both *U-Brackets* as shown below.
6. Insert two Carriage Bolts into each Pole Bracket.

7. Attach each Pole Bracket to each U-Bracket using two Serrated Flange Bolts. Hand-tighten the bolts.
8. To mount the antenna to the pole, slide a *Pole Clamp* over each pair of *Carriage Bolts*. Secure each *Pole Clamp* with two *Serrated Flange Nuts*.

**Note:** The mounting assembly can accommodate a Ø 40 mm - 80 mm pole.
9. The antenna has an electrical downtilt of 4°. To further adjust the elevation angle:
   a. Loosen the four Serrated Flange Bolts on the U-Brackets and the two Serrated Flange Nuts on the upper Pole Clamp.
   b. Slide the antenna to the desired tilt. (The brackets may slide along the pole, depending on the angle of the elevation tilt.)
   c. Tighten all bolts and nuts to approximately 25 N-m.
## Specifications

<table>
<thead>
<tr>
<th>AM-2G16-90</th>
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<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td>700 x 145 x 79 mm</td>
</tr>
<tr>
<td></td>
<td>(27.56 x 5.71 x 3.11&quot;)</td>
</tr>
<tr>
<td><strong>Weight (Mount Included)</strong></td>
<td>3.9 kg (8.6 lbs)</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>2.3 - 2.7 GHz</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>16.0 - 17.0 dBi</td>
</tr>
<tr>
<td><strong>HPOL Beamwidth</strong></td>
<td>91° (6 dB)</td>
</tr>
<tr>
<td><strong>VPOL Beamwidth</strong></td>
<td>90° (6 dB)</td>
</tr>
<tr>
<td><strong>Elevation Beamwidth</strong></td>
<td>9°</td>
</tr>
<tr>
<td><strong>Electrical Downtilt</strong></td>
<td>4°</td>
</tr>
<tr>
<td><strong>Max. VSWR</strong></td>
<td>1.5:1</td>
</tr>
<tr>
<td><strong>Wind Survivability</strong></td>
<td>200 km/h (125 mph)</td>
</tr>
<tr>
<td><strong>Wind Loading</strong></td>
<td>133.4 N @ 200 km/h (30 lbf @ 125 mph)</td>
</tr>
<tr>
<td><strong>Polarization</strong></td>
<td>Dual Linear</td>
</tr>
<tr>
<td><strong>Cross-Pol Isolation</strong></td>
<td>28 dB Min.</td>
</tr>
<tr>
<td><strong>ETSI Specification</strong></td>
<td>EN 302 326 DN2</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Universal Pole Mount, Rocket Bracket, and Weatherproof RF Jumpers Included</td>
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</tbody>
</table>
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.
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

EXCEPT FOR ANY EXPRESS WARRANTIES PROVIDED HEREIN, UBIQUITI NETWORKS, ITS AFFILIATES, AND ITS AND THEIR THIRD PARTY DATA, SERVICE, SOFTWARE AND HARDWARE PROVIDERS HEREBY DISCLAIM AND MAKE NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, REPRESENTATIONS, GUARANTEES, OR WARRANTIES OF MERCHANTABILITY, ACCURACY, QUALITY OF SERVICE OR RESULTS, AVAILABILITY, SATISFACTORY QUALITY, LACK OF VIRUSES, QUIET ENJOYMENT, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT AND ANY WARRANTIES ARISING FROM ANY COURSE OF DEALING, USAGE OR TRADE PRACTICE IN CONNECTION WITH SUCH PRODUCTS AND SERVICES. BUYER ACKNOWLEDGES THAT NEITHER UBIQUITI NETWORKS NOR ITS THIRD PARTY PROVIDERS CONTROL BUYER’S EQUIPMENT OR THE TRANSFER OF DATA OVER COMMUNICATIONS FACILITIES, INCLUDING THE INTERNET, AND THAT THE PRODUCTS AND SERVICES MAY BE SUBJECT TO LIMITATIONS, INTERRUPTIONS, DELAYS, CANCELLATIONS AND OTHER PROBLEMS INHERENT IN THE USE OF COMMUNICATIONS FACILITIES. UBIQUITI NETWORKS, ITS AFFILIATES AND ITS AND THEIR THIRD PARTY PROVIDERS ARE NOT RESPONSIBLE FOR ANY INTERRUPTIONS, DELAYS, CANCELLATIONS, DELIVERY FAILURES, DATA LOSS, CONTENT CORRUPTION, PACKET LOSS, OR OTHER DAMAGE RESULTING FROM ANY OF THE FOREGOING. In addition, UBIQUITI NETWORKS does not warrant that the operation of the Products will be error-free or that operation will be uninterrupted. In no event shall UBIQUITI NETWORKS be responsible for damages or claims of any nature or description relating to system performance, including coverage, buyer’s selection of products (including the Products) for buyer’s application and/or failure of products (including the Products) to meet government or regulatory requirements.
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

RF Exposure Warning

The antenna and transmitter must be installed to provide a separation distance from all persons and must not be located or operating in conjunction with any other antenna or transmitter. For the specific separation distance, refer to the Quick Start Guide for your Rocket device (transmitter).

L’antenne et l’émetteur doit être installé pour fournir une distance de séparation de toute les personnes et ne doit pas être situé ou opérant en conjonction avec une autre antenne ou un autre émetteur. Pour la distance spécifique de séparation, se référer au Guide de démarrage rapide pour votre appareil Rocket (l’émetteur).
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

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.
Declarations of Conformity

Česky [Czech]
UBIQUITI NETWORKS tímto prohla uje, e tento UBIQUITI NETWORKS device, je ve shod se základními po adavky a dal ími p íslu n mi ustanoveními sm nce 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 relevant bepalingen van Richtlijn 1999/5/EC.

English [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.

Ελληνική [Greek]
ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ UBIQUITI NETWORKS ΔΗΛΩΝΕΙ ΟΤΙ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1995/5/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 me l sir UBIQUITI NETWORKS yfir vi a UBIQUITI NETWORKS device, er í samræmi vi grunnkröfur og a rar krófur, sem ger ar eru í tilskipun 1999/5/EC.