

# *airMAX "Omni*

Next-Gen 2x2 Dual Polarity MIMO Omni Antenna Models: AMO-2G10, AMO-2G13, AMO-3G12, AMO-5G10, AMO-5G13

High Performance, Long Range

Seamlessly Integrates with RocketM

360° Coverage



### **Overview**

#### **Omnidirectional Coverage**

airMAX Omni is a Carrier Class 2x2 Dual Polarity MIMO Omnidirectional Antenna that was designed to seamlessly integrate with RocketM radios (RocketM sold separately).

Pair the RocketM's radio with the airMAX Omni's reach to create a powerful, 360° omnidirectional basestation.. This seamless integration gives network architects unparalleled flexibility and convenience.

On the right is one example of how airMAX Omni can be deployed:



airMAX Omni antennas provide wide 360° coverage and utilize airMAX technology to produce carrier-class performance and power.

**Packet Prioritization** 

#### Utilize airMAX Technology\*

Unlike standard Wi-Fi protocol, Ubiquiti's Time Division Multiple Access (TDMA) airMAX protocol allows each client to send and receive data using pre-designated time slots scheduled by an intelligent AP controller.

This "time slot" method eliminates hidden node collisions and maximizes airtime efficiency. It provides many magnitudes of performance improvements in latency, throughput, and scalability compared to all other outdoor systems in its class.

**Intelligent Qos** Priority is given to voice/video for seamless streaming.

**Scalability** High capacity and scalability.

**Long Distance** Capable of high-speed, carrier-class links.

**Latency** Multiple features dramatically reduce noise.

\* When Omni is paired with RocketM



*Up to 100 airMAX clients can be connected to an airMAX Omni; four airMAX clients are shown to illustrate the general concept.* 

airMAX Omni

## Models



air**MAX**"Omni Datasheet

# Software

airOS is an intuitive, versatile, highly developed Ubiquiti firmware technology. It is exceptionally intuitive and was designed to require no training to operate. Behind the user interface is a powerful firmware architecture, which enables highperformance, outdoor multipoint networking.

- Protocol Support
- Ubiquiti Channelization
- Spectral Width Adjustment
- ACK Auto-Timing
- AAP Technology
- Multi-Language Support

# airView

Integrated on all Ubiquiti M products, airView provides Advanced Spectrum Analyzer Functionality: Waterfall, waveform, and real-time spectral views allow operators to identify noise signatures and plan their networks to minimize noise interference.

- Waterfall Aggregate energy over time for each frequency.
- **Waveform** Aggregate energy collected.
- Real-time Energy is shown realtime as a function of frequency.
- Recording Automize AirView to record and report results.





# air Control

airControl is a powerful and intuitive, web-based server network management application, which allows operators to centrally manage entire networks of Ubiquiti devices.

- Network Map
- Monitor Device Status
- Mass Firmware Upgrade
- Web UI Access
- Manage Groups of Devices
- Task Scheduling



## **Specifications**

| Antenna Characteristics |   |                  |                  |                 |                  |
|-------------------------|---|------------------|------------------|-----------------|------------------|
| Model                   | AMO-2G10  | AMO-2G13         | AMO-3G12         | AMO-5G10        | AMO-5G13         |
| Dimensions* (mm)        | 1030 X 122 X 84   | 1390 X 122 X 105 | 1012 X 122 X 105 | 582 X 90 X 65   | 799 X 90 X 65    |
| Weight*                 | 2.1 kg  | 2.4 kg           | 2.05 kg          | 0.68 kg         | 0.82 kg          |
| Frequency Range         | 2.35 - 2.55 GHz   | 2.35 - 2.55 GHz  | 3.4 - 3.7 GHz    | 5.45 - 5.85 GHz | 5.45 - 5.85 GHz* |
| Gain                    | 10 dBi  | 13 dBi           | 12 dBi           | 10 dBi          | 13 dBi           |
| Elevation Beamwidth     | 12°   | 7°               | 8°               | 12°             | 7°               |
| Max VSWR                | 1.7:1   | 1.7:1            | 1.6:1            | 1.6:1           | 1.5:1            |
| Downtilt                | 4°  | 2°               | 4°               | 4°              | 2°               |
| Wind Survivability      | 125 mph   | 125 mph          | 125 mph          | 125 mph         | 125 mph          |
| Wind Loading            | 14 lb @ 100 mph   | 16 lb @ 100 mph  | 16 lb @ 100 mph  | 10 lb @ 100 mph | 12 lb @ 100 mph  |
| Polarization            | Dual-Linear   | Dual-Linear      | Dual-Linear      | Dual-Linear     | Dual-Linear      |
| Cross-pol Isolation     | 25 dB min.  | 25 dB min.       | 25 dB min.       | 25 dB min.      | 25 dB min.       |
| ETSI Specification      | EN 302 326 DN2  | EN 302 326 DN2   | EN 302 326 DN2   | EN 302 326 DN2  | EN 302 326 DN2   |
| Mounting                | Universal Pole Mount, RocketM Bracket, and Weatherproof RF Jumpers Included |                  |                  |                 |                  |

\* Dimensions and weight include pole mount and exclude RocketM (RocketM sold separately)

#### AMO-2G10 Antenna Information







Horizontal Azimuth



Horizontal Elevation



#### **AMO-2G13 Antenna Information**







Horizontal Azimuth 90

0 dB

-3 dB

-6 dB

-9 dB

-12 dB

-15 dB

18 dB

-60

-21 dB

-90

18

180

12

-120





#### AMO-3G12 Antenna Information





Horizontal Azimuth

90

0 dB

-3 dB

-6 dB -9 dB

-12 dB

-15 dB

18 dB -21 dB

-90

60

Vertical Elevation



Horizontal Elevation



Datasheet air**MAX**"Omni

#### AMO-5G10 Antenna Information





Horizontal Azimuth





Horizontal Elevation



#### AMO-5G13 Antenna Information





Horizontal Azimuth

12

-120

180

Vertical Elevation



90

0 dB

-3 dE

-6 dB

-9 dB -12 dB

-15 dB

18 dB

-60

Horizontal Elevation



**nni** Datasheet

-90

### TOUGHCabl **OUTDOOR CARRIER CLASS SHIELDED**

Protect your networks from the most brutal environments with Ubiquiti Networks' industrial-grade, shielded Ethernet cable, TOUGHCable.

#### Increase Performance

Dramatically improve your Ethernet link states, speeds, and overall performance with Ubiquiti TOUGHCables.

#### **Extreme Weatherproof**

Designed for outdoor use, TOUGHCables have been built to perform even in the harshest weather and environments.

#### **ESD Damage Protection**

Protect your networks from devastating electrostatic discharge (ESD) attacks.

#### **Extended Cable Support**

TOUGHCables have been developed to increase power handling performance for extended cable run lengths.

#### **Bulletproof your networks**

TOUGHCable is currently available in two versions: PRO Shielding Protection and CARRIER Shielding Protection.

TOUGHCable PRO is a Category 5e, outdoor, carrier-class shielded cable with an integrated ESD drain wire.

#### TOUGHCable CARRIER is a

Category 5e, outdoor, carrier-class shielded cable that features an integrated ESD drain wire, anti-crosstalk divider, and secondary shielding. It is rated to provide optimal performance on Gigabit Ethernet networks.

#### Additional Information:

- 24 AWG copper conductor pairs
- · 26 AWG integrated ESD drain wire to prevent ESD attacks and damage
- · PE outdoor-rated, weatherproof jacket
- Multi-layered shielding
- Available in lengths of 1000 ft (304.8 m)



#### **TOUGHCable Connectors**

Specifically designed for use with Ubiguiti TOUGHCables and available in 100-pc. bags, TOUGHCable Connectors protect against ESD attacks and Ethernet hardware damage, while allowing rapid field deployment without soldering.

ESD attacks are the leading cause for device failures. The diagram below illustrates the areas vulnerable to ESD attacks in a network.

By using a grounded Ubiguiti Power over Ethernet (PoE) Adapter along with Ubiquiti TOUGHCable and TOUGHCable Connectors, you can effectively protect against ESD attacks.





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 installer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, indoor cabling requirements, and Dynamic Frequency Selection (DFS) requirements.

For further information, please visit www.ubnt.com.

All specifications in this document are subject to change without notice.

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