*air***MAX** Omni

Next-Gen 2x2 Dual Polarity MIMO Omni Antenna

Models: AMO-2G10, AMO-2G13, AMO-5G10, AMO-5G13

Hi-Performance, Long Range

Seamlessly Integrates with Rocket M

360 Degree Coverage

UBIQUITI NETWORKS

Overview
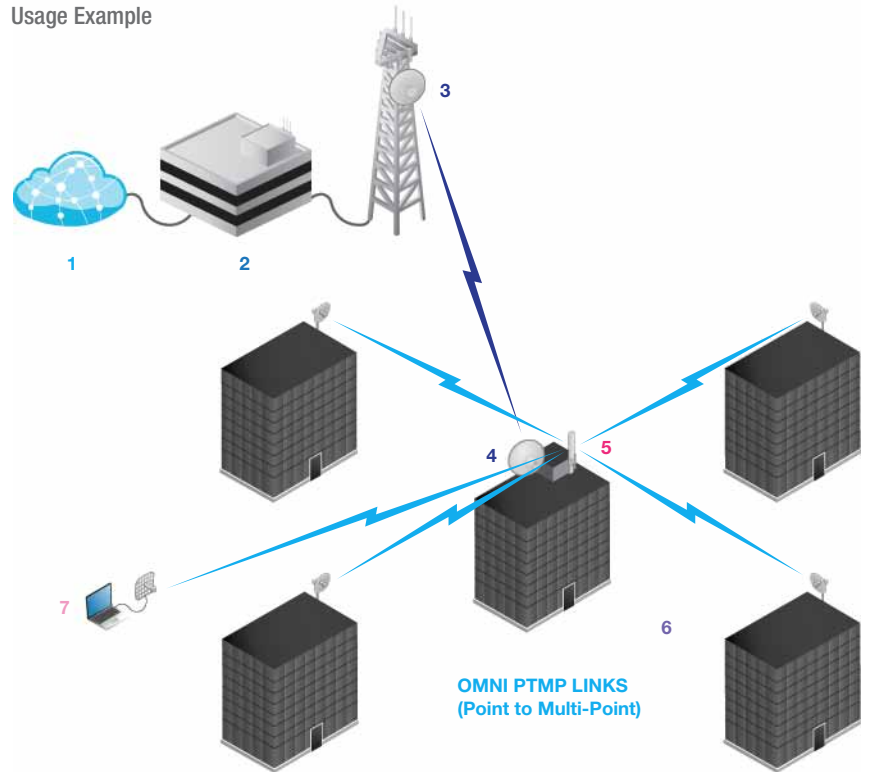
Omnidirectional Coverage

AirMax Omni is a Carrier Class 2x2 Dual Polarity MIMO omnidirectional antenna that was designed to seamlessly integrate with Rocket M radios (Rocket M sold separately).

Rocket M combines the "brains" in one robust unit; just pair Rocket M with AirMax Omni to create 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:

1 Internet Backbone
2 ISP Network
3 RocketDish with Rocket M (PtP backhaul)
4 RocketDish with Rocket M (PtP backhaul)
5 AirMax Omni with Rocket M (PtMP)
6 Corporate campus with NanoBridge M clients
7 Mobile computer with AirGrid M client

Usage Example

OMNI PTMP LINKS
(Point to Multi-Point)

AirMax Omni Antennas provide wide 360° coverage and utilize AirMax technlogy to produce Carrier Class performance and power.

Utilize AirMax Technology *

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

This "time slot" method eliminates hidden node collisions & maximizes air time efficiency. It provides many magnitudes of performance improvements in latency, throughput, & scalability compared to all other outdoor systems in its class.
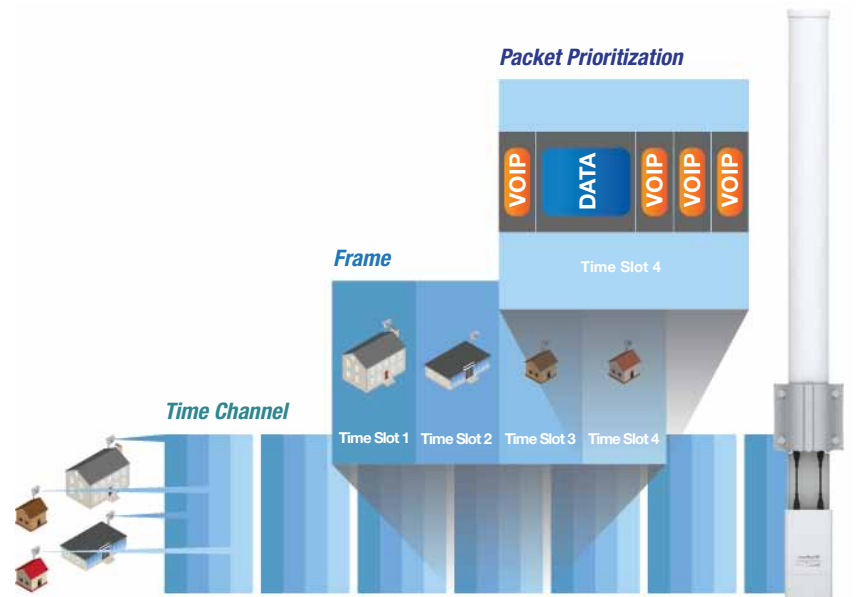
Intelligent QoS Priority is given to voice/video for seamless access.

Scalability High capacity and scalability.

Long Distance Capable of high speed 50km+ links

Latency Multiple features dramatically reduce noise.

*When Omni is paired with Rocket M

Packet Prioritization

VOIP DATA VOIP VOIP VOIP

Frame

Time Slot 4

Time Channel

Time Slot 1 Time Slot 2 Time Slot 3 Time Slot 4

AirMax Clients (up to 100 clients can be connected per AirMax Omni, 4 clients are shown to show general concept)   *AirMax Omni*

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Models

Datasheet

airMAX Omni

[left to right] **AMO-5G10** (5GHz, 10dBi), **AMO-5G13** (5GHz, 13dBi), **AMO-2G10** (2.4GHz, 10dBi), **AMO-2G13** (2.4GHz, 13dBi)

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Software *

⚲OS

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 hi-performance outdoor multipoint networking.

Protocol Support

Ubiquiti Channelization

Spectral Width Adjust

ACK Auto-Timing

AAP Technology

Multi-Language Support

www.ubnt.com/airos

⚲View

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 real-time as a function of frequency.

Recording Automize AirView to record and report results.

www.ubnt.com/airview

⚲Control

AirControl is a powerful and intuitive web based server network management application which allows operators to centrally manage entire networks of Ubiqutii devices.

Network Map

Monitor Device Status

Mass Firmware Upgrade

Web UI Access

Manage Groups of Devices

Task Scheduling

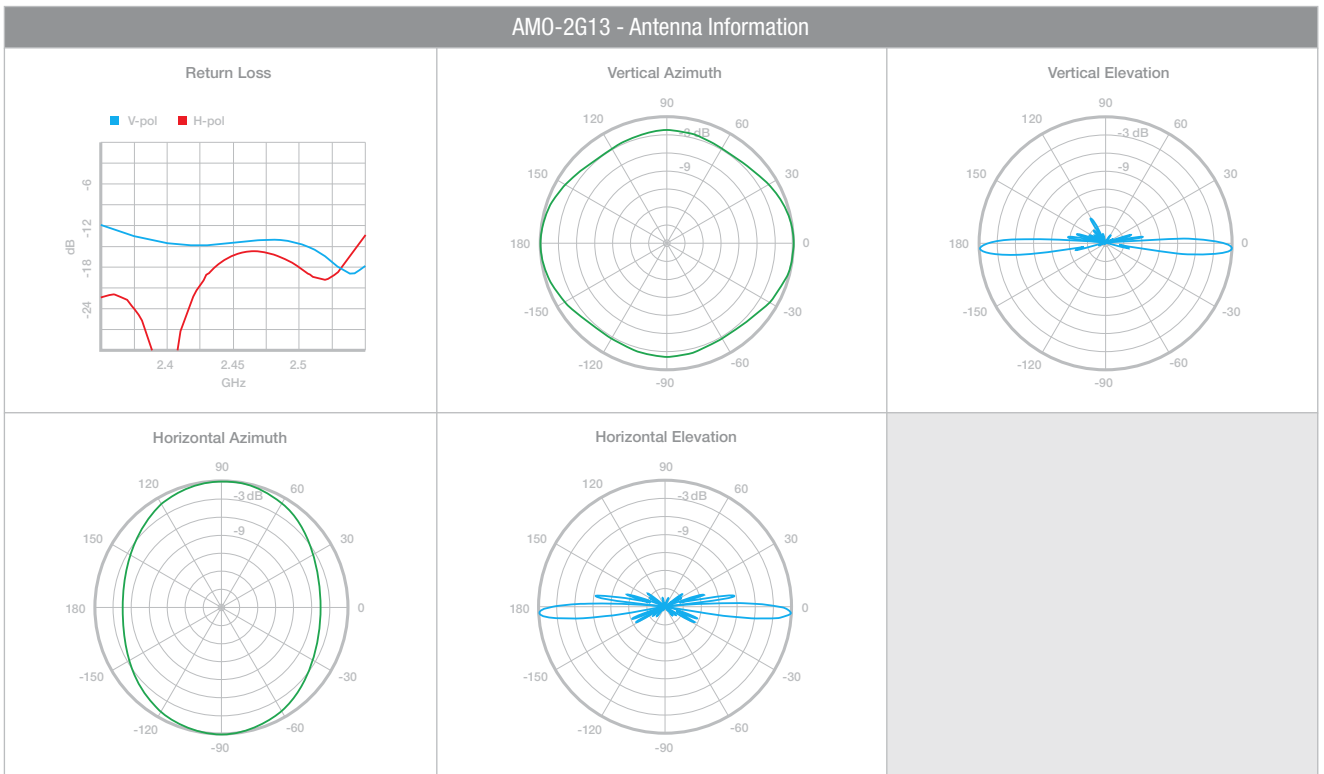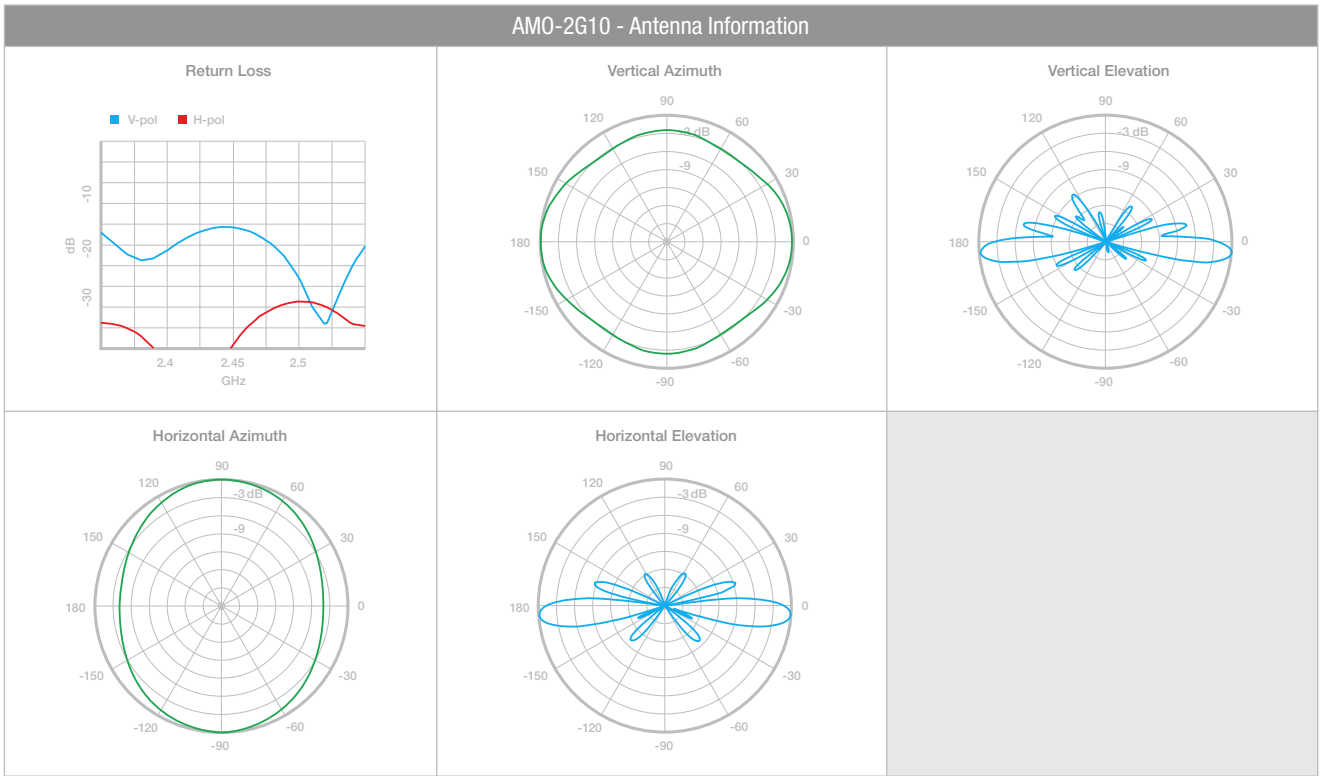www.ubnt.com/aircontrol

* When AirMax Omni is paired with Rocket M

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Specifications

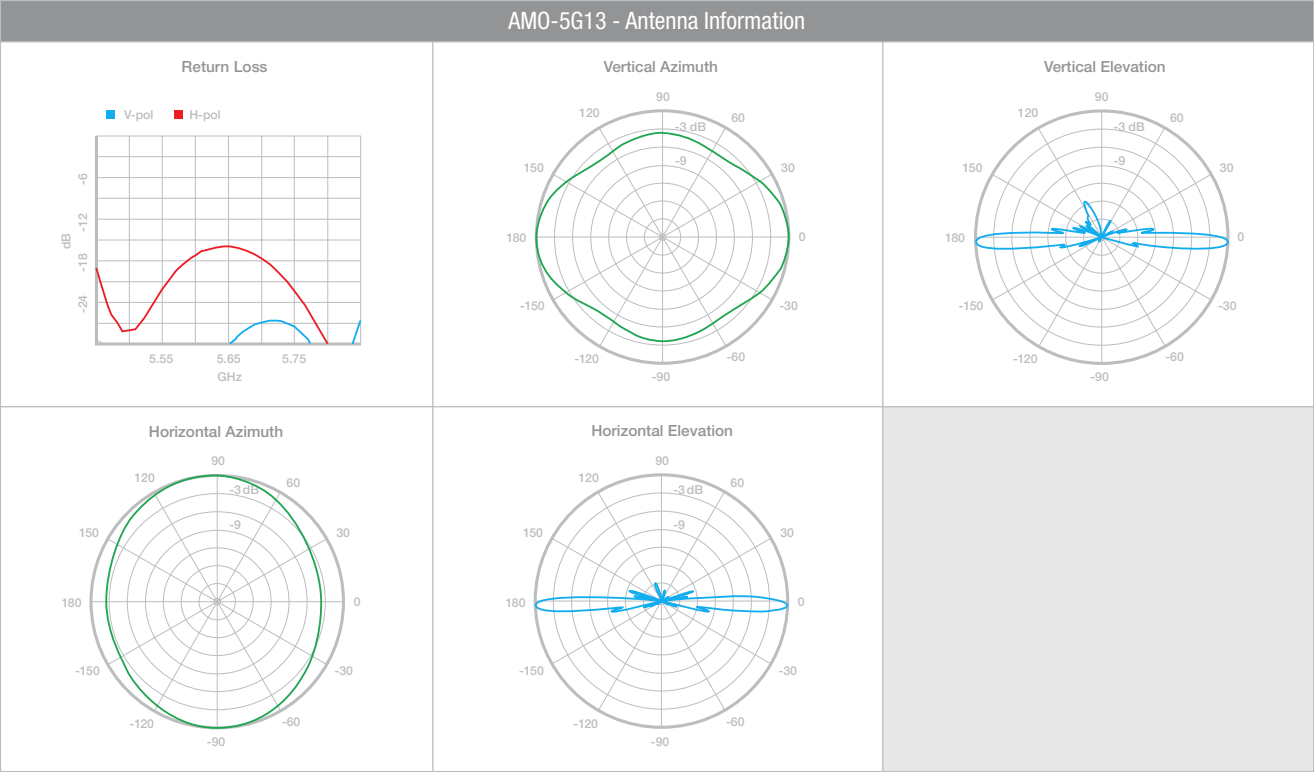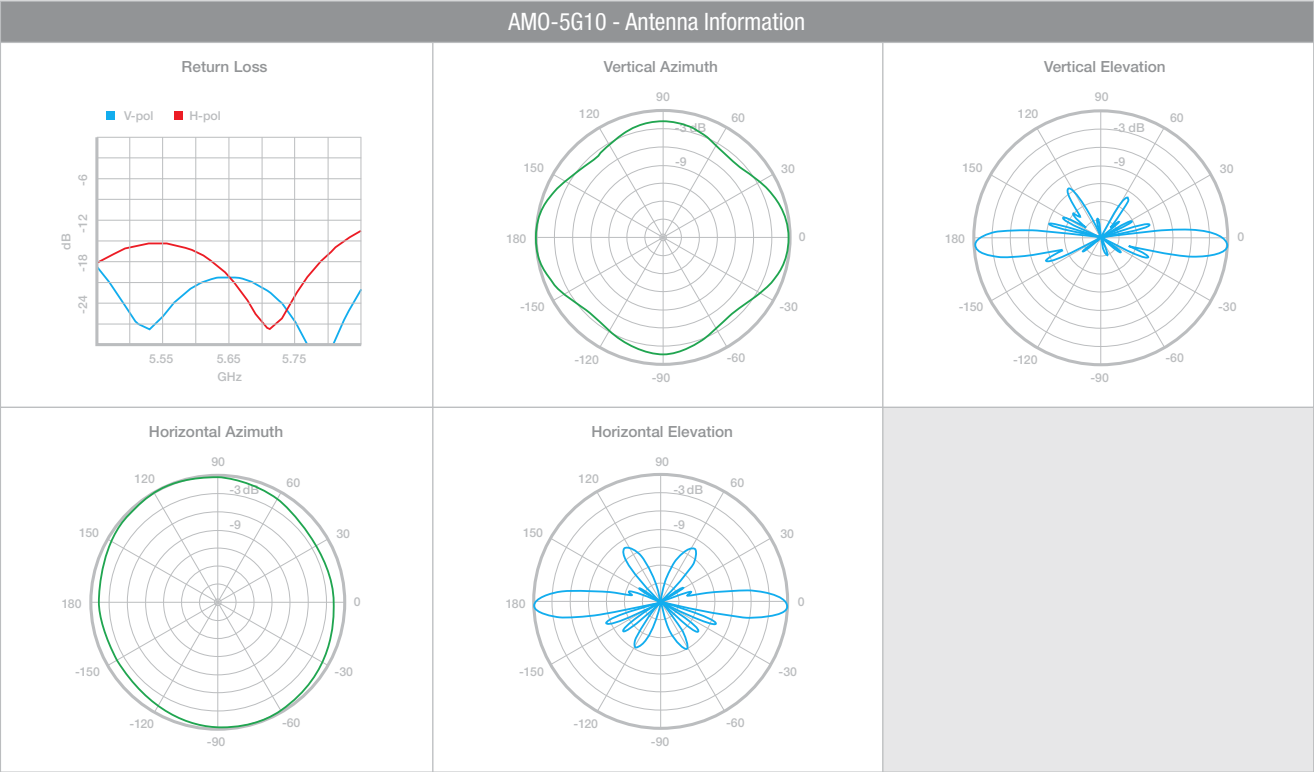| Antenna Characteristics				
	AMO-2G10	AMO-2G13	AMO-5G10	AMO-5G13
Frequency Range	2.35 - 2.55 GHz		5.45 - 5.85 GHz*	
Gain	10 dBi	13 dBi	10 dBi	13 dBi
Elevation Beamwidth	12 deg	7 deg	12 deg	7 deg
Max VSWR	1.7:1		1.6:1	1.5:1
Downtilt	4 deg	2 deg	4 deg	2 deg
Dimensions** (l x w x h)	217 x 123 x 1011 mm	217 x 123 x 1386 mm	158 x 98 x 579 mm	158 x 98 x 834 mm
Weight**	2.1 kg	2.4 kg	0.68 kg	0.82 kg
Wind Survivability	125 mph	100 mph	125 mph	
Wind Loading	28 lb @ 100 mph	38 lb @ 100 mph	8 lb @ 100 mph	10 lb @ 100 mph
Polarization	Dual Linear			
Cross-pol Isolation	25 dB min			
ETSI Specification	EN 302 326 DN2			
Mounting	Universal pole mount, Rocket M bracket, and weatherproof RF jumpers included			

* Only 5745 - 5825 MHz is supported in the USA
** Dimensions and weight include pole mount; do not include Rocket M (Rocket M sold separately)

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Specifications (cont.)

AMO-2G10 - Antenna Information

Return Loss

■ V-pol   ■ H-pol

dB / GHz

Vertical Azimuth

Vertical Elevation

Horizontal Azimuth

Horizontal Elevation

AMO-2G13 - Antenna Information

Return Loss

■ V-pol   ■ H-pol

dB / GHz

Vertical Azimuth

Vertical Elevation

Horizontal Azimuth

Horizontal Elevation

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Specifications (cont.)

AMO-5G10 - Antenna Information

Return Loss

■ V-pol ■ H-pol

dB / GHz
5.55 5.65 5.75

Vertical Azimuth

Vertical Elevation

Horizontal Azimuth

Horizontal Elevation

AMO-5G13 - Antenna Information

Return Loss

■ V-pol ■ H-pol

dB / GHz
5.55 5.65 5.75

Vertical Azimuth

Vertical Elevation

Horizontal Azimuth

Horizontal Elevation

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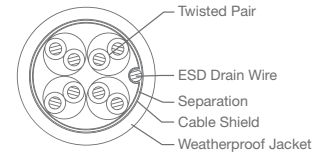
TOUGHCable

OUTDOOR CARRIER CLASS SHIELDED

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

Increase Performance Dramatically improve your ethernet link states, speeds, and overall performance with Ubiquiti TOUGHCables.
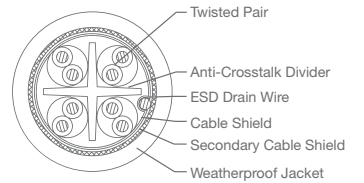
Extreme Weatherproof TOUGHCables have been built to perform even in the harshest weather and environments.

Eliminate ESD Attacks Protect your networks from devastating ESD Attacks, TOUGHCables eliminate ESD attacks and ethernet hardware damage.

Extended Cable Support TOUGHCables have been developed to have increased power handling performance for extended cable run lengths.

Twisted Pair
ESD Drain Wire
Separation
Cable Shield
Weatherproof Jacket

LEVEL 1
SHIELDING PROTECTION

Twisted Pair
Anti-Crosstalk Divider
ESD Drain Wire
Cable Shield
Secondary Cable Shield
Weatherproof Jacket

LEVEL 2
SHIELDING PROTECTION

Bulletproof your networks

TOUGHCable is currently available in two versions: Level 1 Shielding Protection and Level 2 Shielding Protection.

Level 1 is a Category 5e (100Mbps Ethernet Support) Outdoor Carrier Class Shielded Cable.

Level 2 is a Category 6 (1Gbps Ethernet Support) Outdoor Carrier Class Shielded Cable that is also capable of providing enhanced Category 5e performance.
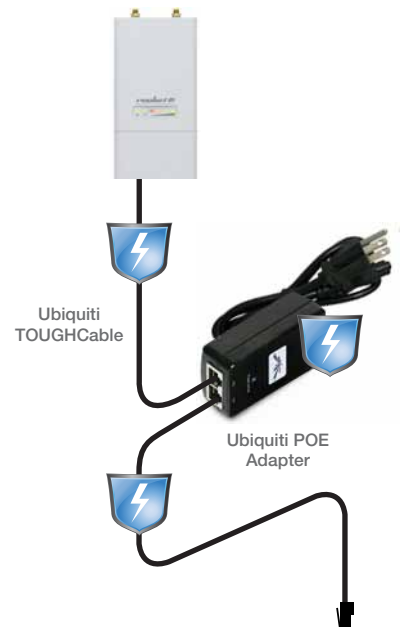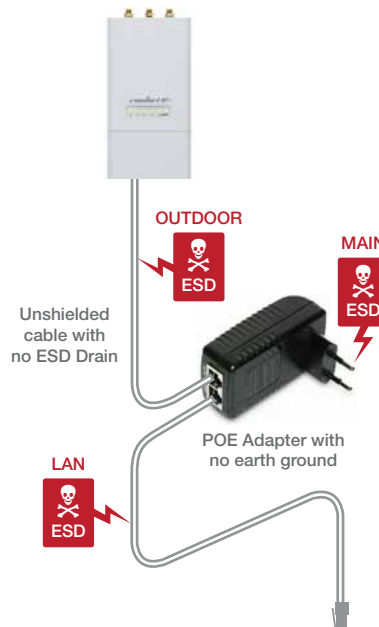
Additional Information:
• 24 AWG copper conductor pairs
• ESD Drain Wire: 26 AWG integrated ESD Drain wire to prevent ESD attacks & damage.
• PVC outdoor rated jacket
• 0.35um foil shield
• Multi-Layered Shielding
• 1000ft (304.8m) length

Learn more:
www.ubnt.com/toughcable

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

By using a grounded Ubiquiti POE adapter (included) along with Ubiquiti TOUGHCable (sold separately), you can effectively eliminate ESD Attacks.

OUTDOOR
MAIN
ESD
ESD
Unshielded cable with no ESD Drain
LAN
ESD
POE Adapter with no earth ground

Ubiquiti TOUGHCable
Ubiquiti POE Adapter

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NETWORKS

TERMS OF USE: The Ubiquiti radio device must be professionally installed. Shielded ethernet cable and earth grounding must be used as conditions of product warranty. It is the installers responsibility to follow local country regulations including operation within legal frequency channels, output power, 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. AMO-DS-032111

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