DATASHEET

airMAX® ac Sector

2x2 MIMO BaseStation Sector Antenna

Models: AM-5AC21-60, AM-5AC22-45

Advanced Noise Immunity

Superior Beam Performance

Enhanced Scalability of airMAX® Networks

UBIQUITI® NETWORKS

Overview

As the next generation of 2x2 MIMO sector antennas from Ubiquiti Networks, the airMAX® ac Sector Antennas feature significant advances in scalability, noise isolation, and beam performance to complement the Rocket™5ac radios.

They are also compatible with RocketM5 models; however, optimal performance requires the Rocket5ac.

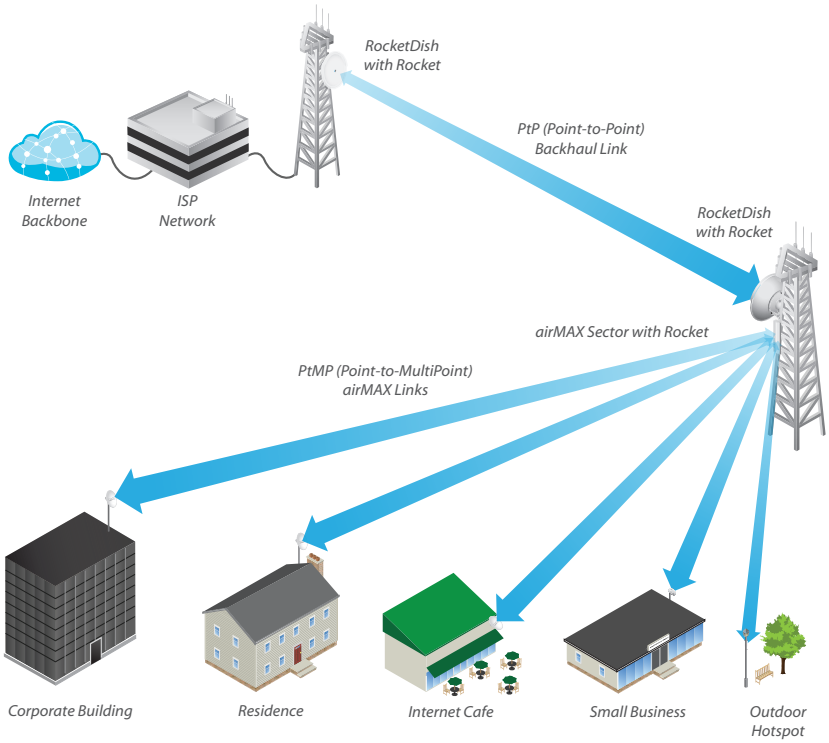
Breakthrough Performance

The airMAX ac Sector Antennas are highly resistant to noise interference in co-location deployments. The innovative deflector design, together with the reduced sidelobes and backlobes, reject interference from other transmitters in the area – potentially on the same tower.

Improved Signal-to-Noise Ratio (S/N or SNR) allows a higher-order modulation to be used, for example, 256QAM rather than 16QAM. This increases the number of bits per second for a fixed bandwidth (or data rate).

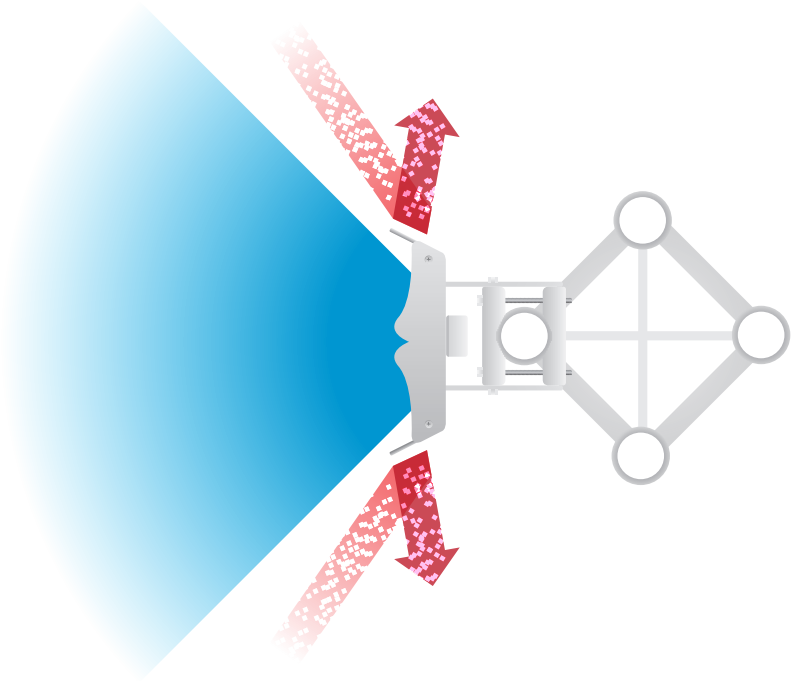
Due to innovative design, the airMAX ac Sector Antennas provide higher gain and superior beam performance for high-capacity, multipoint networks.

Point to Multi-Point (PtMP) Link Example



The airMAX ac Sector Antennas provide sector-wide coverage and utilize airMAX technology to provide carrier-class performance and power.

Innovative Deflector Design

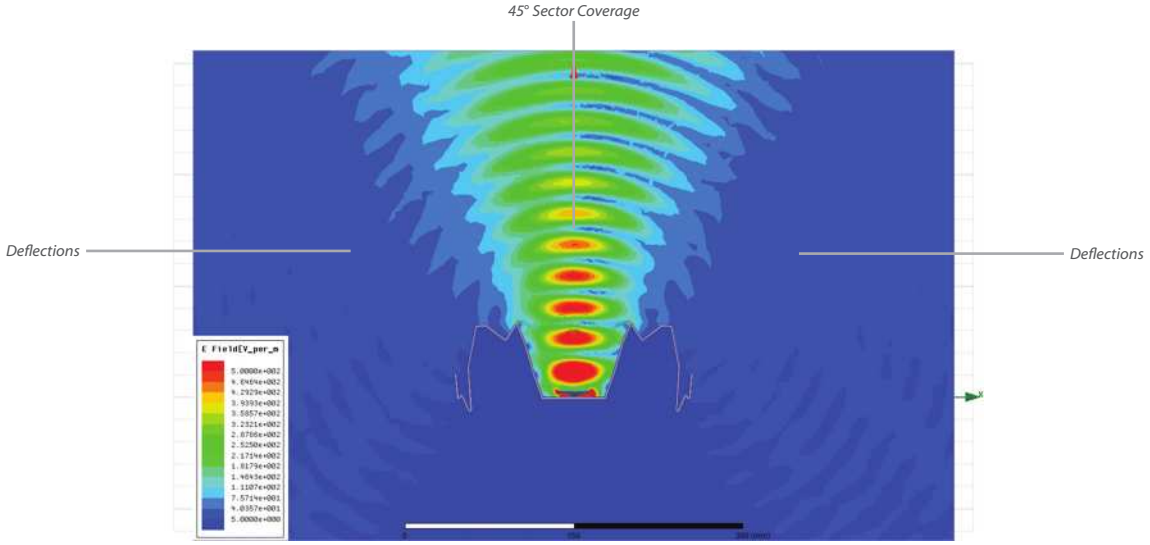


The airMAX ac Sector Antennas are engineered to reject interference and provide enhanced scalability, higher gain, and superior beam performance in PtMP networks.

Market-Leading Isolation Performance

The airMAX ac Sector Antennas are designed to provide advanced noise isolation performance. Compare the diagram of the AM-5AC22-45 to the diagram of a standard sector antenna, and note the superior noise immunity and beam performance of the AM-5AC22-45. (Both diagrams use a linear scale.)

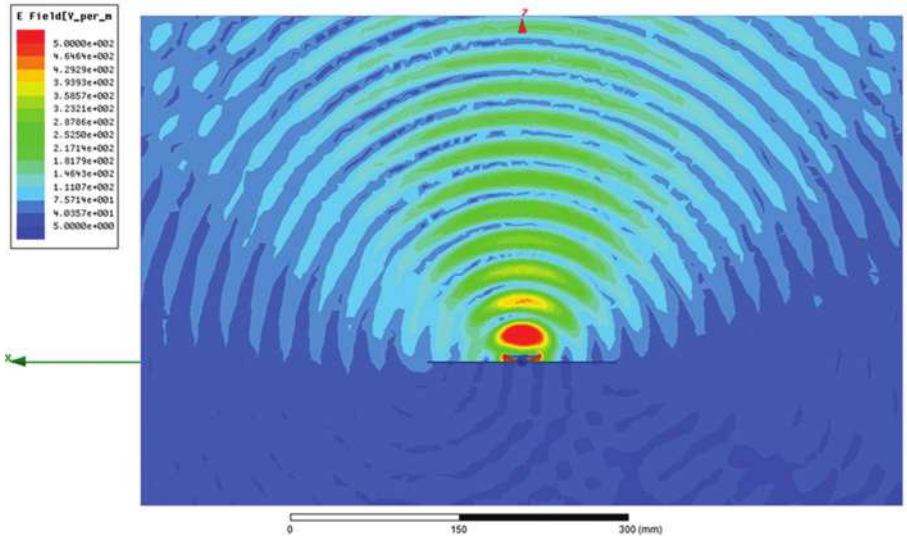
Near Field of AM-5AC22-45 (displayed in watts)



The strength of the electromagnetic field is color-coded.

- *Red: Highest strength*
- *Green: Medium strength*
- *Indigo: Weakest strength*

Near Field of Standard Sector Antenna (displayed in watts)



The strength of the electromagnetic field is color-coded.

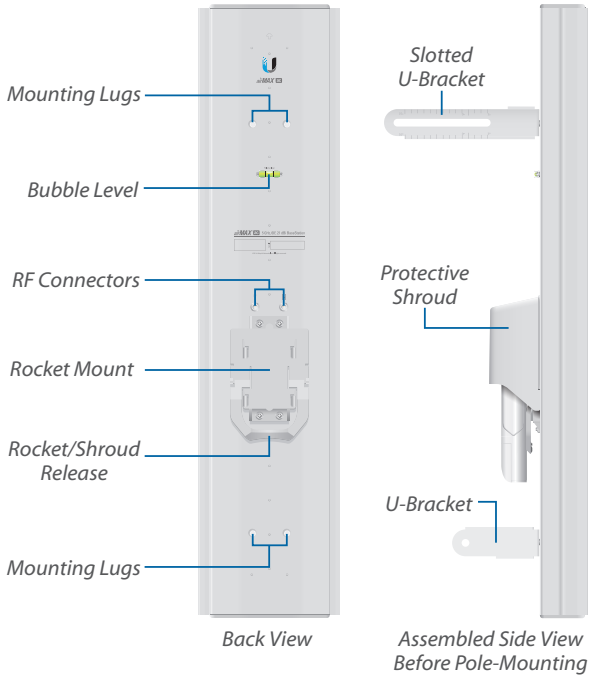
- *Red: Highest strength*
- *Green: Medium strength*
- *Indigo: Weakest strength*

Hardware Overview

The airMAX ac Sector Antenna features robust construction for industrial-strength durability during outdoor use.

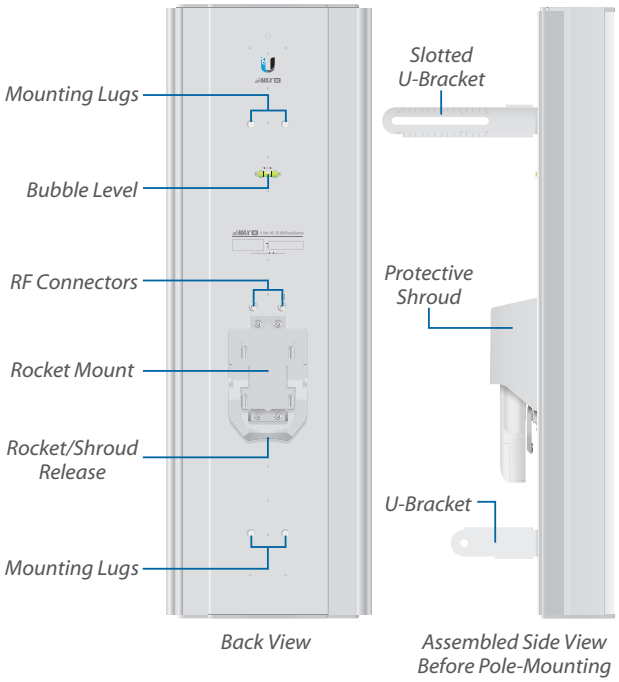
airMAX ac Sector

Model	Frequency	Gain	Beamwidth
AM-5AC21-60	5 GHz	21 dBi	60°



airMAX ac Sector

Model	Frequency	Gain	Beamwidth
AM-5AC22-45	5 GHz	22 dBi	45°



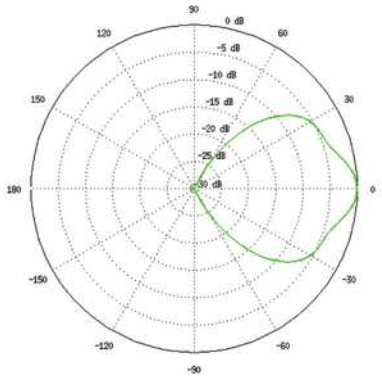
Specifications

AM-5AC21-60 Antenna Characteristics	
Dimensions*	750 x 173 x 78 mm (29.53 x 6.81 x 3.07")
Weight†	4.8 kg (10.58 lbs)
Frequency Range	5.10 - 5.85 GHz
Gain	21 dBi
HPOL Beamwidth	60° (6 dBi)
VPOL Beamwidth	60° (6 dBi)
Electrical Beamwidth	4°
Electrical Downtilt	2°
Max. VSWR	1.5:1
Wind Survivability	200 km/h (125 mph)
Wind Loading	391 N @ 200 km/h (88 lbf @ 125 mph)
Polarization	Dual-Linear
Cross-Polarization Isolation	25 dB Min.
ETSI Specification	EN 302 326 DN1
Mounting	Universal Pole Mount, Rocket Bracket, and Weatherproof RF Jumpers Included

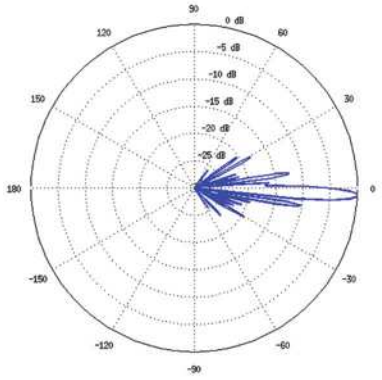
** Dimensions exclude pole mount and Rocket radio (Rocket sold separately)*

† Weight includes pole mount and excludes Rocket radio (Rocket sold separately)

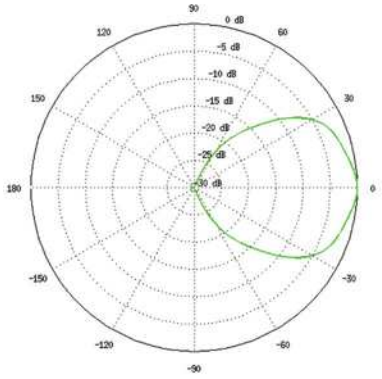
Vertical Azimuth



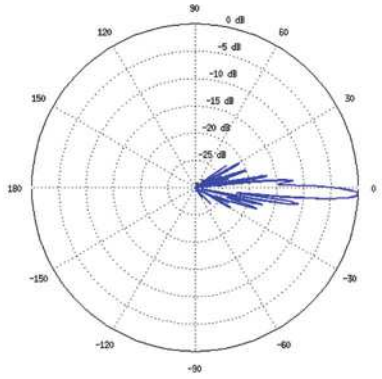
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation



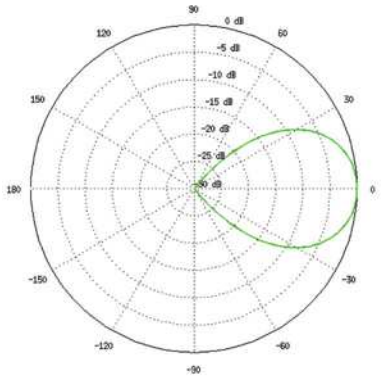
Specifications

AM-5AC22-45 Antenna Characteristics	
Dimensions*	750 x 215 x 94 mm (29.53 x 8.47x 3.70")
Weight†	6 kg (13.23 lbs)
Frequency Range	5.10 - 5.85 GHz
Gain	22 dBi
HPOL Beamwidth	45° (6 dBi)
VPOL Beamwidth	45° (6 dBi)
Electrical Beamwidth	4°
Electrical Downtilt	2°
Max. VSWR	1.5:1
Wind Survivability	200 km/h (125 mph)
Wind Loading	347 N @ 200 km/h (78 lbf @ 125 mph)
Polarization	Dual-Linear
Cross-Polarization Isolation	30 dB Min.
ETSI Specification	EN 302 326 DN1
Mounting	Universal Pole Mount, Rocket Bracket, and Weatherproof RF Jumpers Included

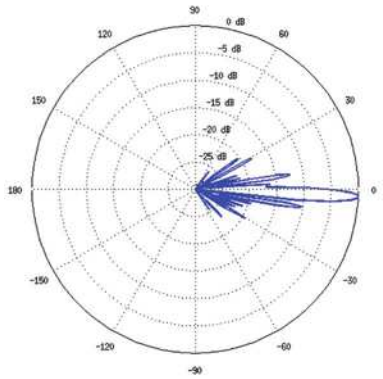
* *Dimensions exclude pole mount and Rocket radio (Rocket sold separately)*

† *Weight includes pole mount and excludes Rocket radio (Rocket sold separately)*

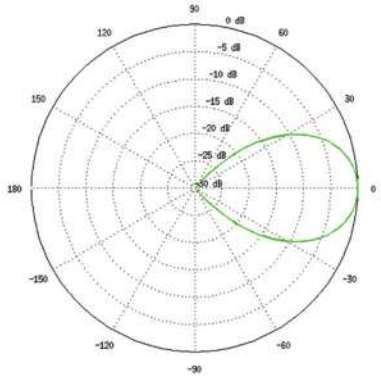
Vertical Azimuth



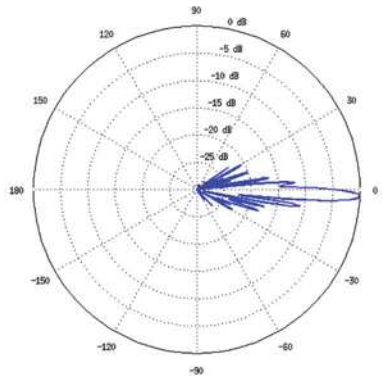
Vertical Elevation



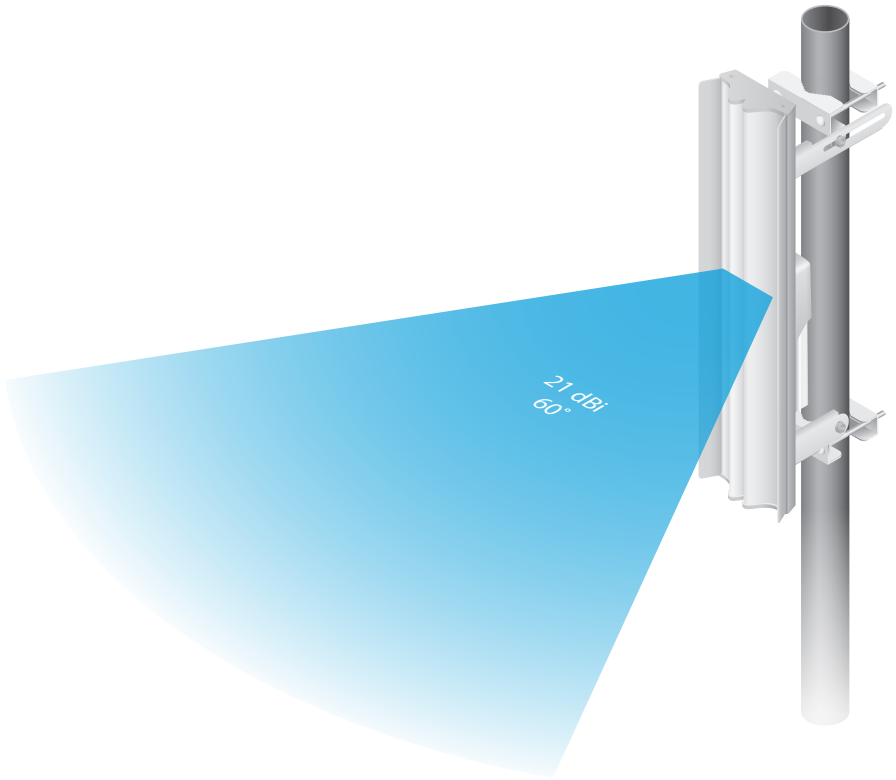
Horizontal Azimuth



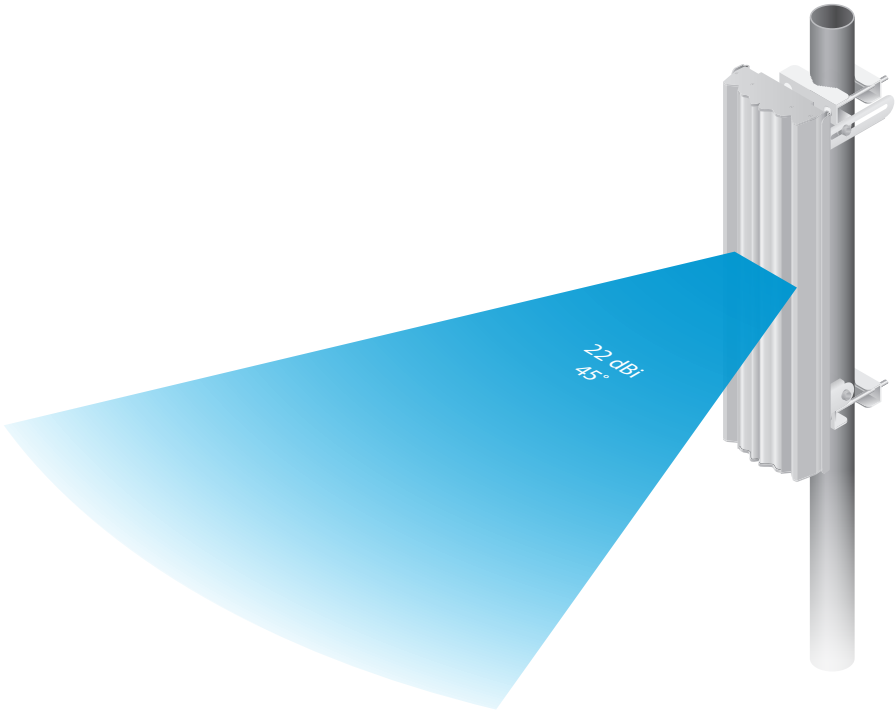
Horizontal Elevation



Beamwidth



AM-5AC21-60



AM-5AC22-45

Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: 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.
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