



## *airMAX*® **ae** Sector

2x2 MIMO BaseStation Sector Antenna

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

Advanced Noise Immunity

---

Superior Beam Performance

---

Enhanced Scalability of airMAX® 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.

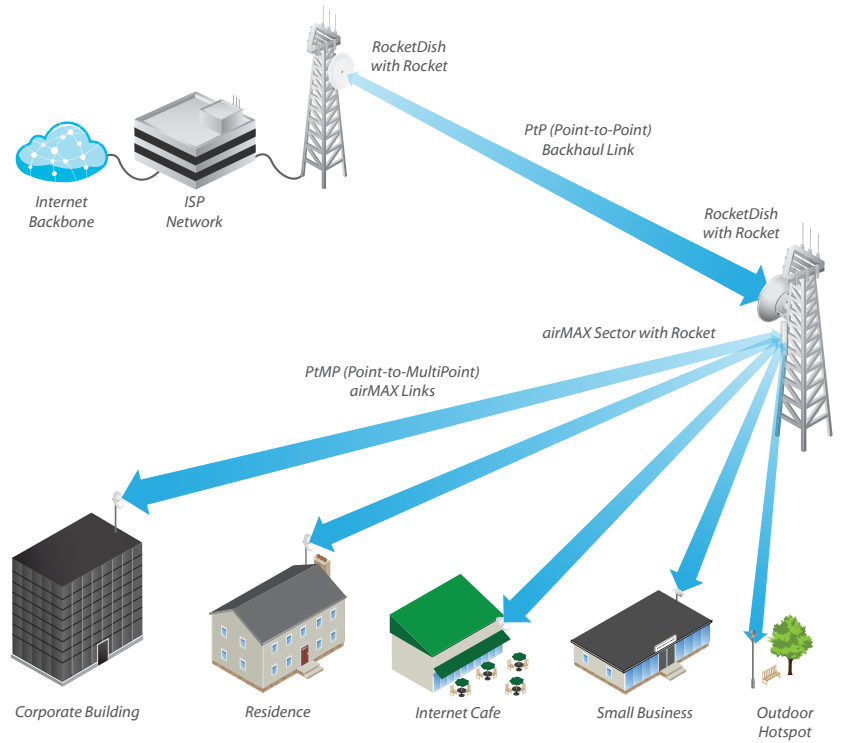
## Breakthrough Performance

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).

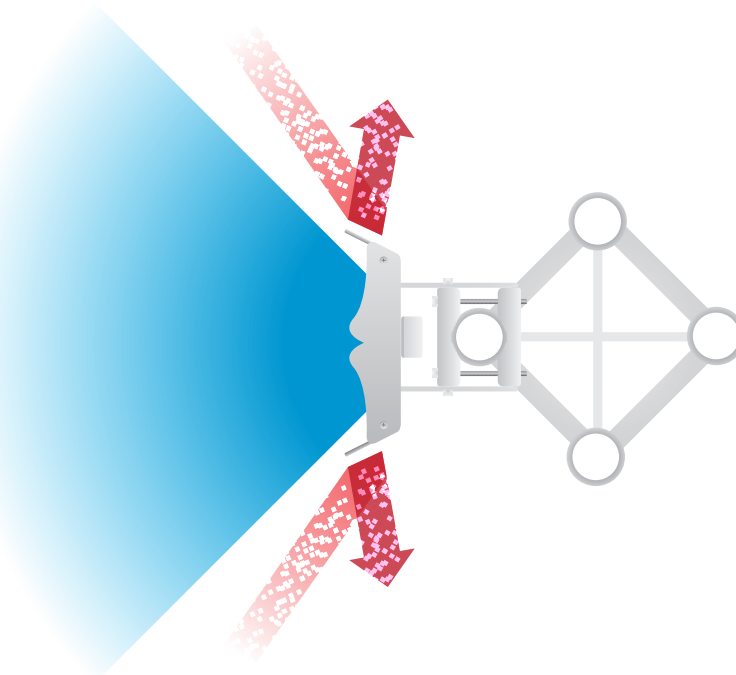
Due to innovative design, the airMAX ac Sector Antennas provide higher gain and superior beam performance for high-capacity, multipoint networks.

## 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

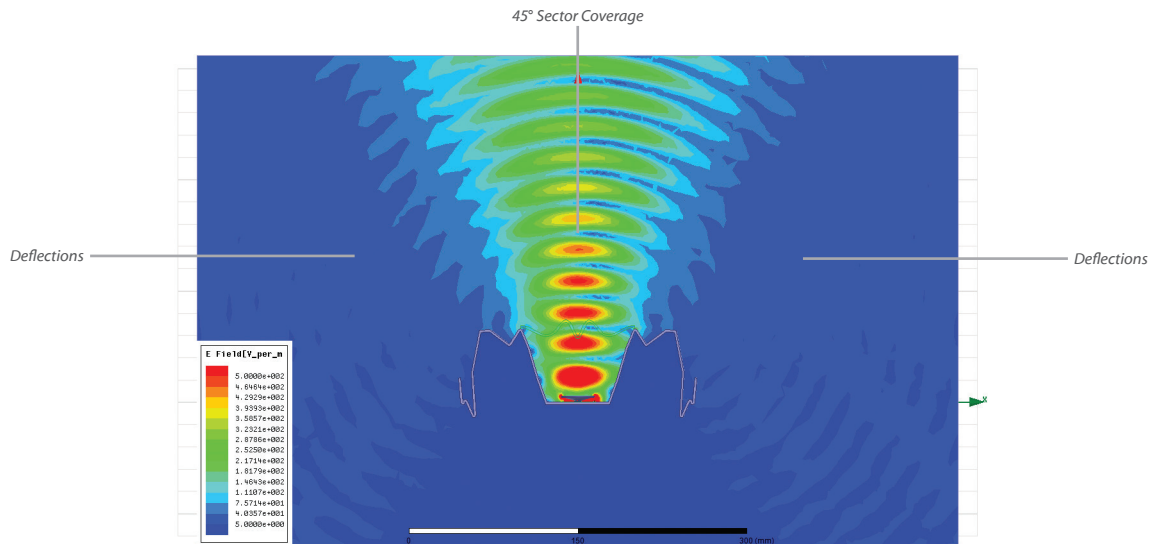


The airMAX ac Sector Antennas are engineered to reject interference and provide enhanced scalability, higher gain, and superior beam performance in PtMP networks.

# 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.)

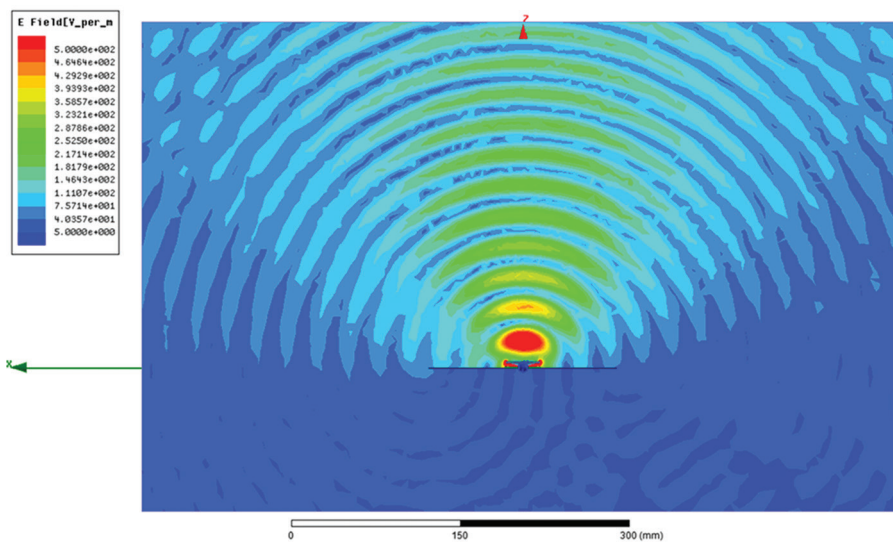
## Near Field of AM-5AC22-45 (displayed in watts)



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.



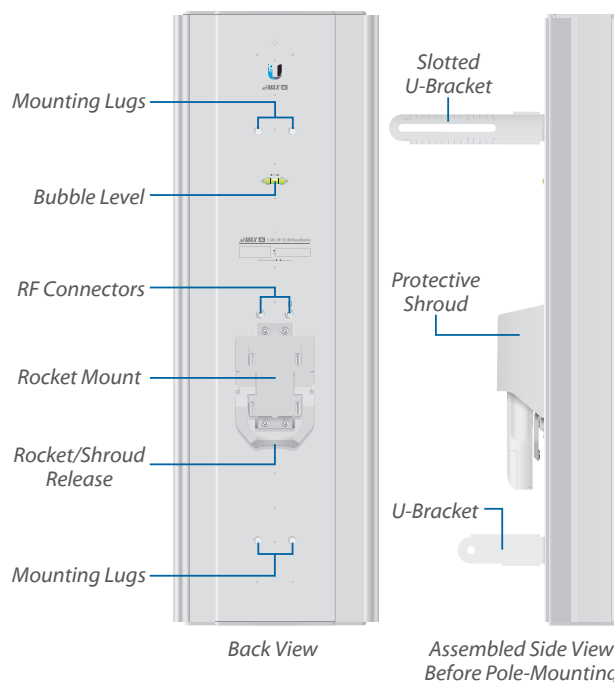
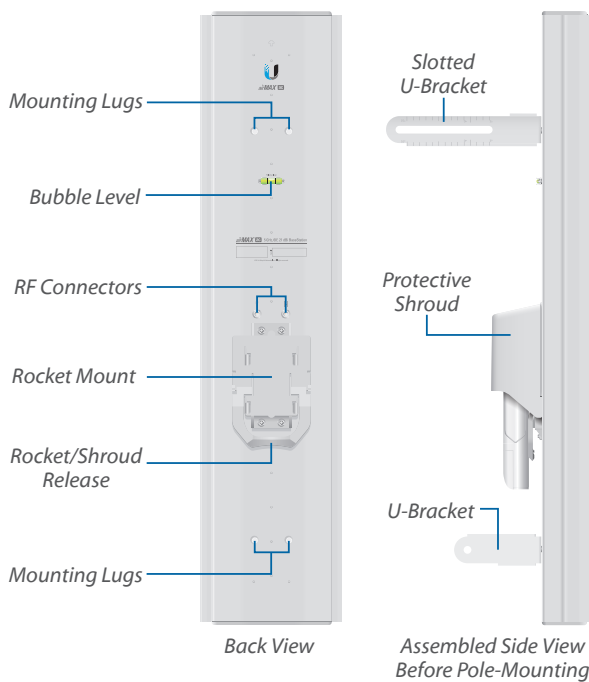
airMAX ac Sector

| 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°       |

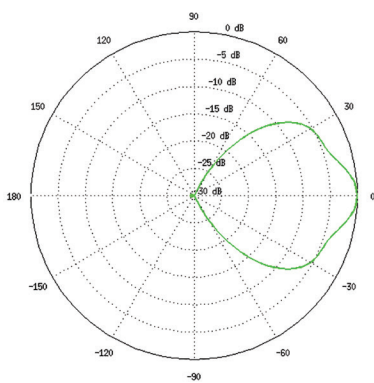


# Specifications

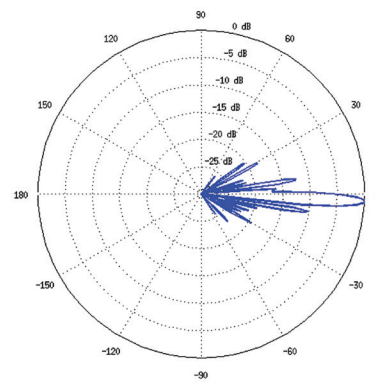
| AM-5AC21-60 Antenna Characteristics |  |
|-------------------------------------|--|
| Dimensions*                         | 750 x 173 x 78 mm<br>(29.53 x 6.81 x 3.07")                                |
| Weight†                             | 4.8 kg<br>(10.58 lbs)  |
| Frequency Range                     | 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<br>(125 mph)  |
| Wind Loading                        | 391 N @ 200 km/h<br>(88 lbf @ 125 mph)                                     |
| Polarization                        | Dual-Linear  |
| Cross-Polarization Isolation        | 25 dB Min.   |
| ETSI Specification                  | EN 302 326 DN2   |
| 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)

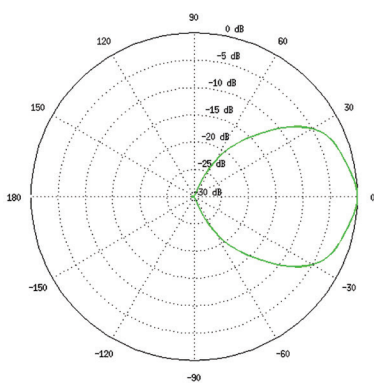
Vertical Azimuth



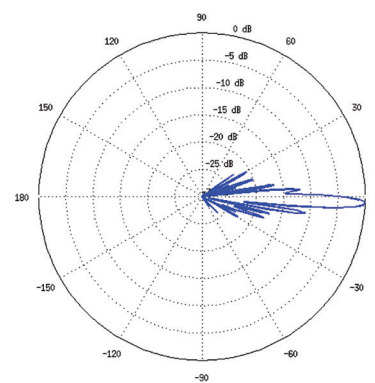
Vertical Elevation



Horizontal Azimuth



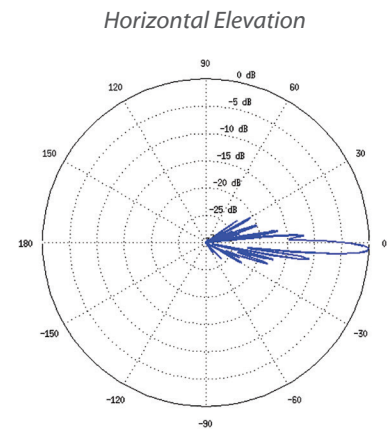
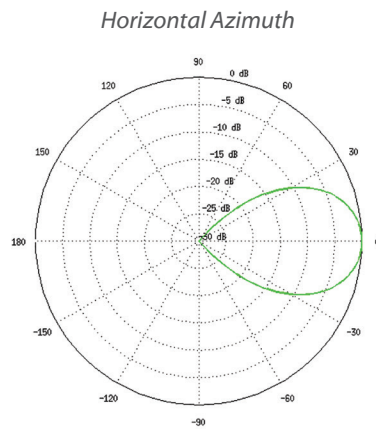
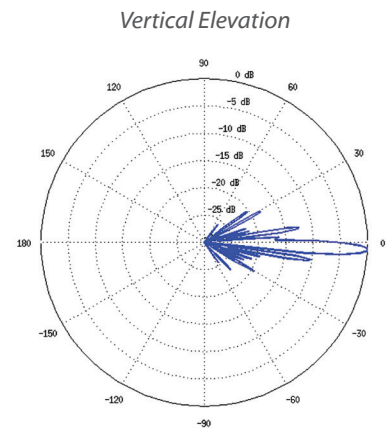
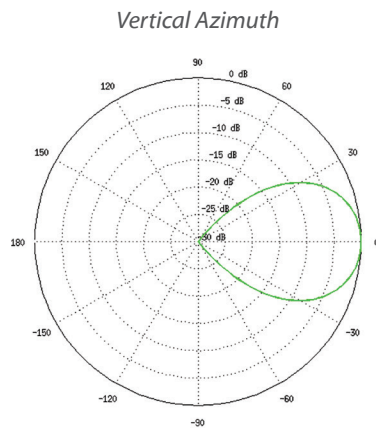
Horizontal Elevation



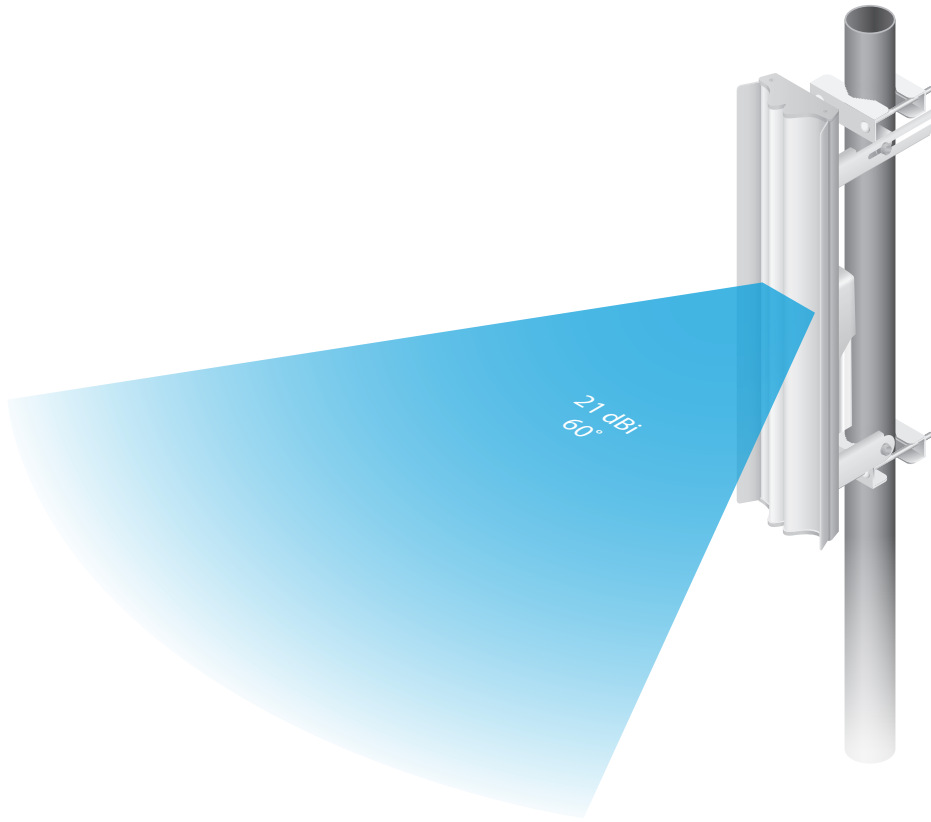
# Specifications

| AM-5AC22-45 Antenna Characteristics |  |
|-------------------------------------|--|
| Dimensions*                         | 750 x 215 x 94 mm<br>(29.53 x 8.47 x 3.70")                                |
| Weight†                             | 6 kg<br>(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<br>(125 mph)  |
| Wind Loading                        | 347 N @ 200 km/h<br>(78 lbf @ 125 mph)                                     |
| Polarization                        | Dual-Linear  |
| Cross-Polarization Isolation        | 30 dB Min.   |
| ETSI Specification                  | EN 302 326 DN2   |
| Mounting                            | Universal Pole Mount, Rocket Bracket, and Weatherproof RF Jumpers Included |

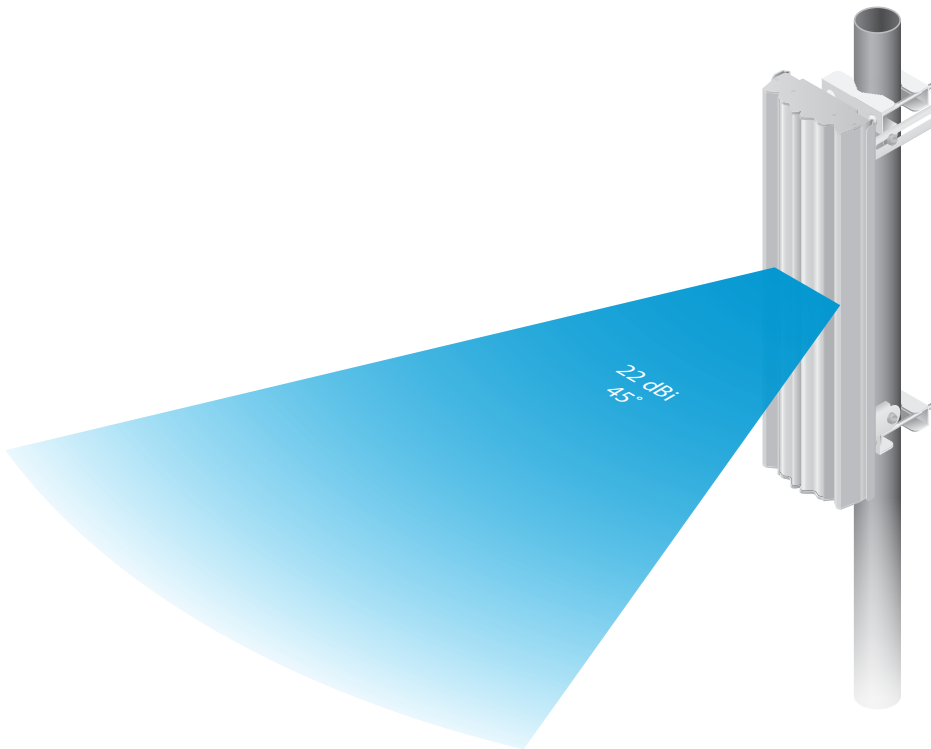
\* Dimensions exclude pole mount and Rocket radio (Rocket sold separately)  
 † Weight includes pole mount and excludes Rocket radio (Rocket sold separately)



# Beamwidth



AM-5AC21-60



AM-5AC22-45

