



Patent pending
AIO-DQ15021

Patent pending AIO-DQ15021 w/
standard articulating mount

This patent pending antenna is a four-port dual-band, dual polarized directional antenna for use in 802.11n MIMO indoor and outdoor applications. The antenna is an excellent choice for high density Wi-Fi applications where adjacent interference is of concern. The dual-band frequency coverage means that a single type of antenna can be deployed with any MIMO radio in the 2400-2500 MHz and 4900-5950 MHz bands. In addition, the uniform and symmetrical radiation patterns provide a high-level signal density into engineered coverage areas.

FEATURES AND BENEFITS

- Ultra-thin, compact ASA UV stable white housing
- Articulating arm mount can be anchored directly to a vertical surface or mast mounted and oriented for optimal signal radiation.
- Four radiating elements optimized for indoor and outdoor 802.11 MIMO applications
- Horizontal and vertical polarization for multipath mitigation

APPLICATIONS

- High density Wi-Fi
- Outdoor stadiums, arenas, and convention centers
- Hotels and casinos
- Airport, bus, and train terminals
- Retail stores and indoor pedestrian malls
- Libraries and museums

ELECTRICAL SPECIFICATIONS

| Model Name | AIO-DQ15021 | |
|--|--|-----------|
| Number of Ports | 4 | |
| Operating Frequency (MHz) | 2400-2500 | 4900-5950 |
| VSWR-Avg | 1.5:1 | 2.0:1 |
| VSWR-Max | <2.0:1 | <2.0:1 |
| Peak Gain -Avg. (dBi) | 10.7 | 13.4 |
| Peak Gain - Max. (dBi) | 11.1 | 15.0 |
| Max. Gain $\pm 30^\circ$ above Horizon (dBi) | | 4.7 |
| Port-to-Port Isolation -Avg. (dB) | >40 | >39 |
| Port-to-Port Isolation - Max. (dB) | >30 | >30 |
| Nominal Impedance (Ohms) | 50 | |
| Max Power - Ambient 25°C (W) | 10 | |
| Polarization | Vertical (2 ports), Horizontal (2 ports) | |
| Vertical Plane 3 dB Beamwidth - V-pol | 48° | 18° |
| Vertical Plane 3 dB Beamwidth - H-pol | 47° | 20° |
| Horizontal Plane 3 dB Beamwidth - V-pol | 48° | 21° |
| Horizontal Plane 3 dB Beamwidth - H-pol | 50° | 21° |
| Front-to-Back Ratio (dB) | >25 | |

MECHANICAL SPECIFICATIONS

| | |
|--|---|
| Dimensions -mm (inches) | 373.3 X 411.4 X 35.8 (14.7 X 16.2 X 1.41) |
| Weight-kg (lbs.)/Weight w/ mount-kg (lbs.) | 1.58 (3.48)/2.28 (5.03) |
| Cable Type | Plenum rated, CMP rated for Plenum per NFPA 262 |
| Mounting | Mast (44-57 mm) or Concrete Wall (HDMNT kit) |
| Radome/Baseplate Material | ASA, White, UV Stable |

ENVIRONMENTAL SPECIFICATIONS

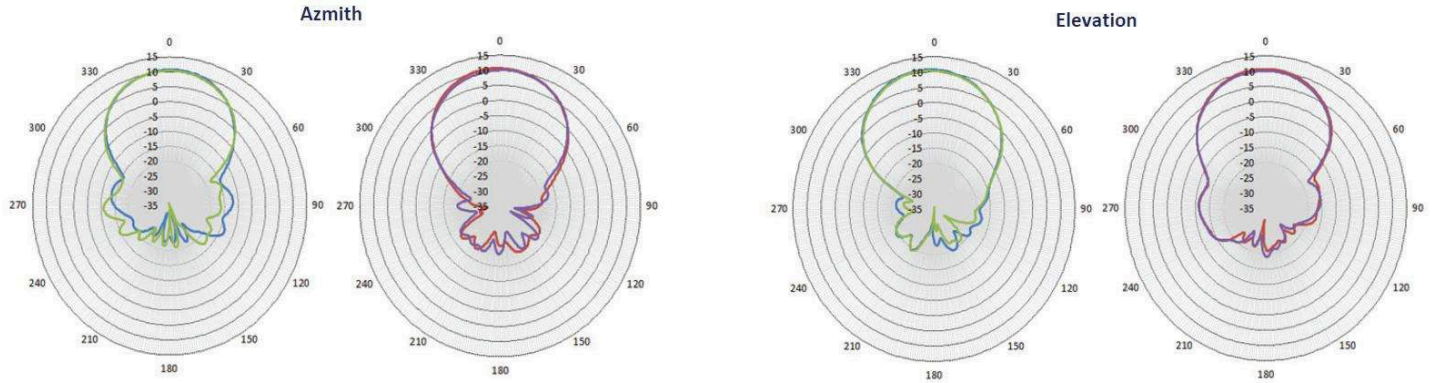
| | |
|---|-------------------------------|
| Operating Environment (Indoor or Outdoor) | Indoor and Outdoor |
| Operating Temperature -° C (° F) | -30 to +70° C (-22 to +158°F) |
| Storage Temperature -° C (° F) | -40 to +85° C (-40 to +185°F) |
| Ingress Protection Rating | IP67 |
| Material Substance Compliance | RoHS |

CONFIGURATION

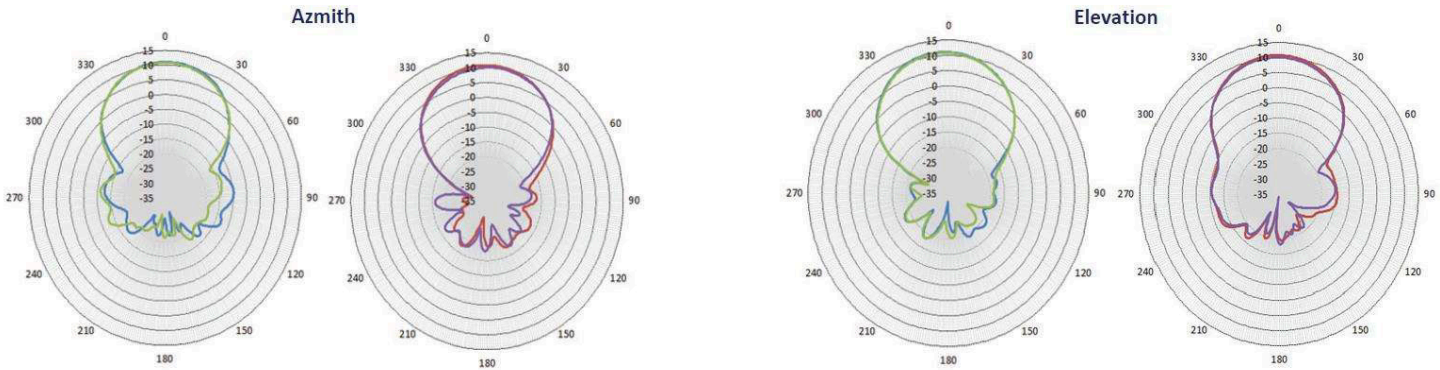
| PART NUMBER | CABLE LENGTH | CONNECTOR |
|-------------------|---------------------|------------------|
| AIO-DQ15021-N | 4x- 91 cm (3.0 ft.) | 4x - Type N-Male |
| AIO-DQ15021-RPSMA | 4x- 91 cm (3.0 ft.) | 4x - Type RPSMA |

RADIATION PATTERNS

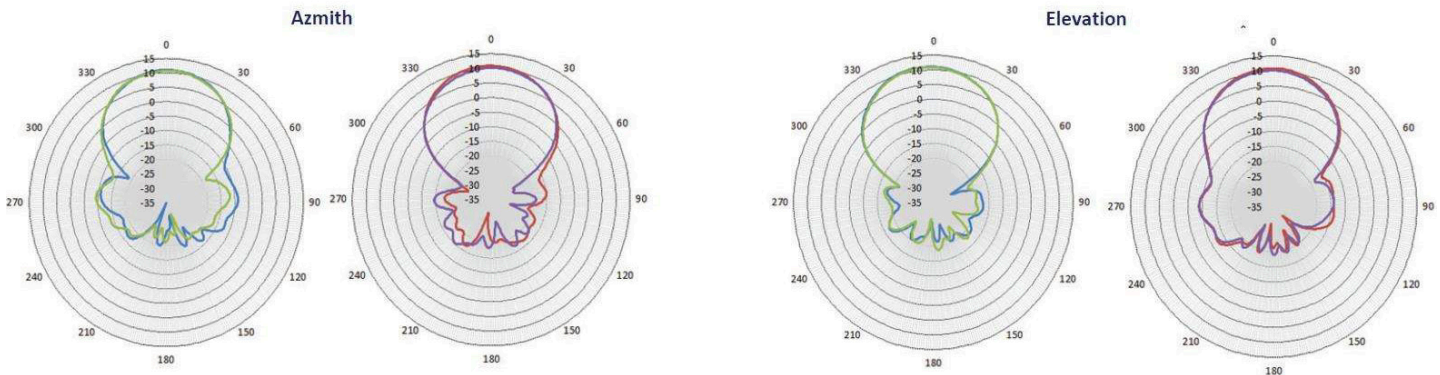
2400 MHz



2450 MHz



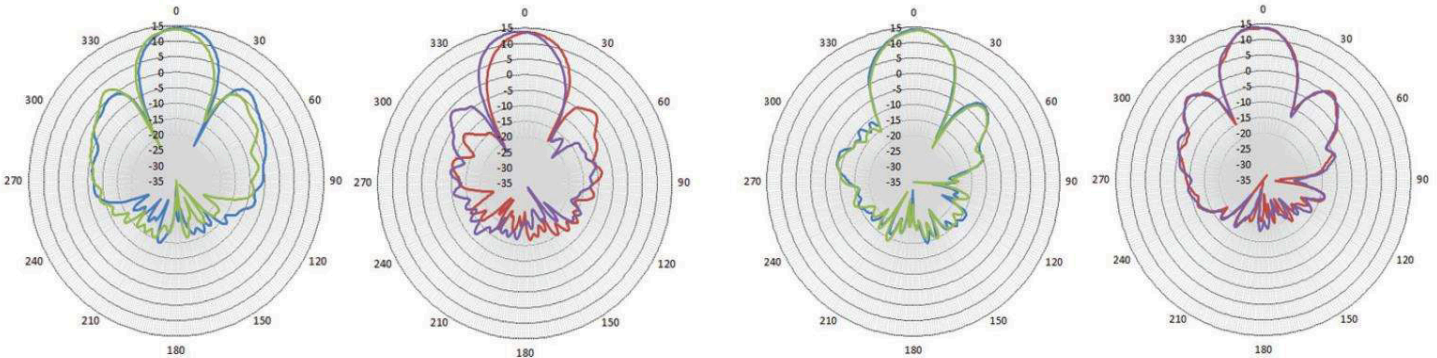
2500 MHz



4900 MHz

Azimuth

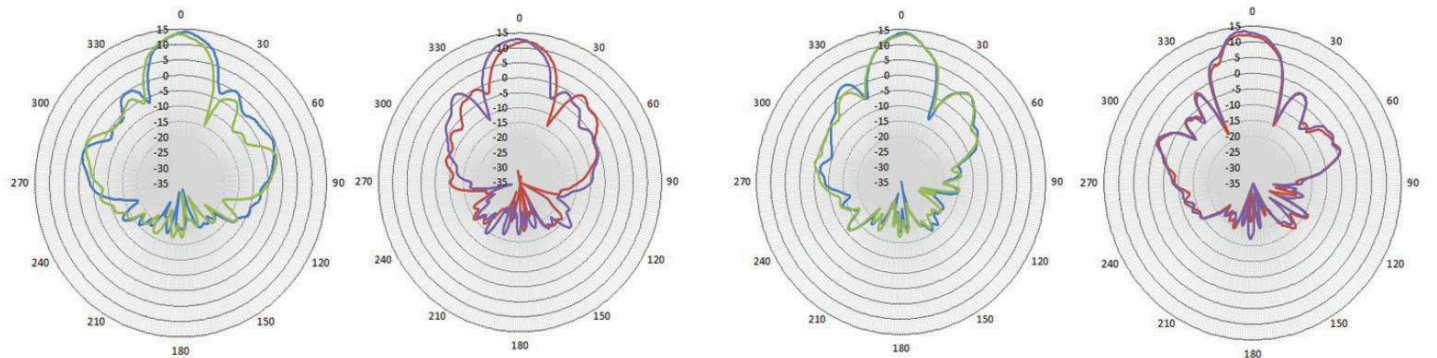
Elevation



5500 MHz

Azimuth

Elevation



5950 MHz

Azimuth

Elevation

