# QUAD454W0000x

Twin Band | Quad Port | Panel Antenna | (2x) X-Pol | 45° / 45° | 19.0 / 19.0 dBi | Variable Tilt

- Twin band, quad-port panel antenna with variable electrical tilt
- AWS-3 Ready
- 4x4 MIMO
- Patented internal RET actuator adds no additional length to the antenna

| Ordering Options | Model Number |
|---|---|
| When ordering, replace "x" in the model number with one of the options listed below. | |
| Manual Electrical Tilt | QUAD454W0000M |
| Remote Electrical Tilt AISG v2.0 / 3GPP with an MDCU RET Actuator | QUAD454W0000G |
| Remote Electrical Tilt AISG v2.0 / 3GPP with an MDDU RET Actuator | QUAD454W0000L |
| Mounting bracket kits and other accessories are ordered separately. | |

| Electrical Characteristics | | (2x) 1695-2180 MHz | | |
|---|---|---|---|---|
| Frequency Bands | | 1695-1880 MHz | 1850-1990 MHz | 1900-2180 MHz |
| Polarization | | (2x) ±45° (Quad-Pol) | | |
| Horizontal Beamwidth | | 48° | 44° | 40° |
| Vertical Beamwidth | | 8.0° | 7.5° | 7.0° |
| Gain | | 18.0 dBi | 18.5 dBi | 19.0 dBi |
| Electrical Downtilt | | 0-10° | | |
| Impedance | | 50Ω | | |
| VSWR | | < 1.4:1 | | |
| Upper Sidelobe Suppression | | 18 dB | | |
| Front-to-Back Ratio (±15° from 180°) | | > 30 dB | | |
| Inter-port Isolation | at 0° | > 25 dB | | |
| | all other tilts | > 28 dB | | |
| IM3 (2x20W carrier) | | < -153 dBc | | |
| Input Power | | (4x) 300 W | | |
| Total Number of Connectors | | Antennas has 4 connectors located at the bottom | | |
| Connectors Per Band | 1695-2180 MHz | (2x) 7/16-DIN Female | | |
| | 1695-2180 MHz | (2x) 7/16-DIN Female | | |
| Diplexed | | No | | |
| Lightning Protection | | Direct Ground | | |
| Operating Temperature | | -40° to +60° C (-40° to +140° F) | | |

| Mechanical Characteristics | | | |
|---|---|---|---|
| Dimensions (Length x Width x Depth) | | 1306.3 x 407 x 98 mm | 51.4 x 16.0 x 3.9 in |
| Weight without Mounting Brackets: MET | | 17.0 kg | 37.5 lbs |
| Weight without Mounting Brackets: RET | | 17.3 kg | 38.1 lbs |
| Survival Wind Speed | | 201 km/hr | 125 mph |
| Wind Loads (160 km/hr or 100 mph) | Front | 649 N | 146 lbf |
| | Side | 148 N | 33 lbf |

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| **Electrical Downtilt Control** | | |
|---|---|---|
| Electrical downtilt for each band can be controlled separately. Tilt indicator(s) are covered by removable transparent cap(s). | | |
| Manual Electrical Tilt (MET) Control | A colored knob at the end of the tilt indicator allows change of the tilt without need of a tool. The knob color is identical to the corresponding connector ring color. To access the knob, remove the cap by turning it counter-clockwise. It is re-installed by opposite rotation. Do not remove the transparent cap(s) from the antenna. | |
| Remote Electrical Tilt (RET) Control | The remote control of the electrical tilt is managed by either a Multi-Device Control Unit (MDCU) or a Multi-Device Dual Unit (MDDU) inserted in the bottom of the antenna. A single actuator individually controls the tilt of each band (no need for daisy chain cables between the bands). This module does not add any additional length to the antenna. For RET control, the transparent caps must be in place and locked. The tilt angle indicators always remain visible and the antenna still has manual tilt control (manual override). | |
| RET Actuator | Select one of the following RET actuators when ordering this antenna. | |
| | Multi-Device Control Unit (MCDU) | The MDCU is an electronic module that allows the remote control of the electrical downtilt (RET) in Amphenol antennas with factory embedded motors. The MDCU is factory installed. Refer to ordering options. |
| | Multi-Device Dual Unit (MDDU) | The MDDU allows two separate RET Controllers to independently drive the RETs in Amphenol antennas with factory installed motors (for antenna sharing). The MDDU is factory installed. Refer to ordering options. |
| Important Installation Instructions  | In order to operate RET control, the transparent caps covering the tilt adjustment indicators must be engaged and locked. Do not cut them from the antenna. | |
| | Do not install the antenna with the connectors facing upward. | |

| Mounting Options | Part Number | Image | Fits Pipe Diameter | Weight |
|---|---|---|---|---|
| All mounting bracket kits are ordered separately unless otherwise indicated. Select from the options listed below. | | | | |
| 2-Point Mounting Bracket Kit | MKS04P01 |  | 40-115 mm 1.6-4.5 in | 2.6 kg 5.8 lbs |
| 2-Point Mounting & Downtilt Bracket Kit | MKS04T02 |  | 40-115 mm 1.6-4.5 in | 3.9 kg 8.5 lbs |

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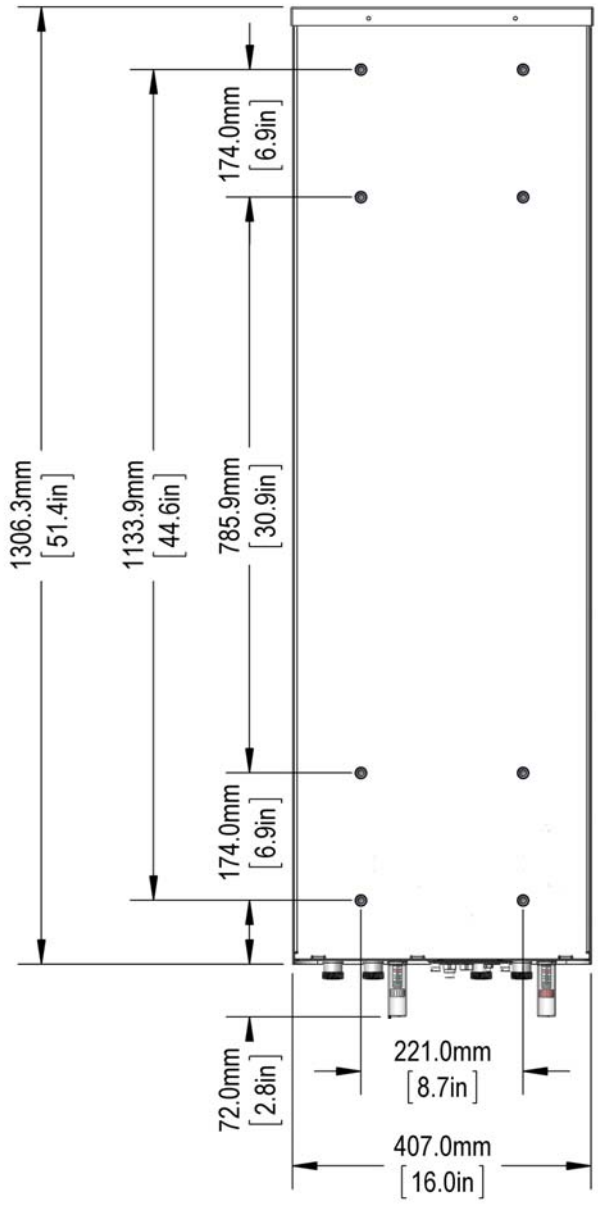
**Bottom View of Antenna**

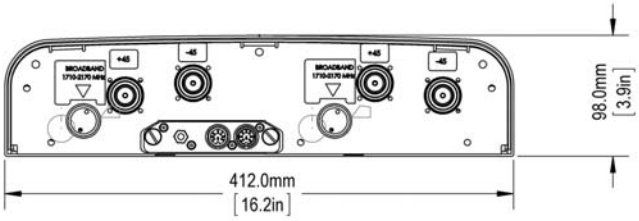
Location of the MDCU or MDDU for RET Control *(MDCU shown)*

Tilt indicators covered by transparent caps. Manual adjustment is accessed by removing the caps. Knob colors are the same as the connectors.

In order to operate RET control, the transparent caps covering the tilt adjustment indicators must be engaged and locked. Do not cut them from the antenna.

**Dimensions**

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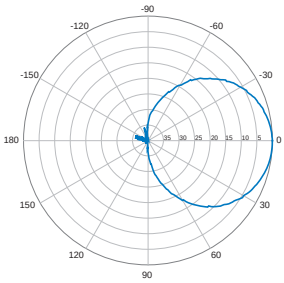
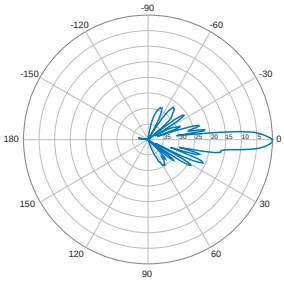
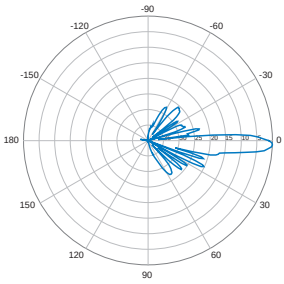
1695-2180 MHz



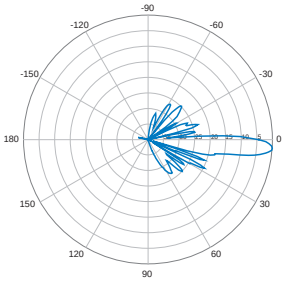
Horizontal | 1800 MHz



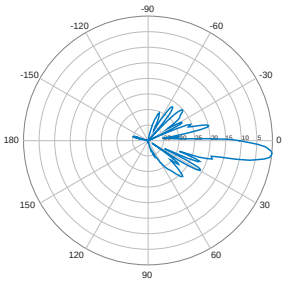
0° | Vertical | 1800 MHz



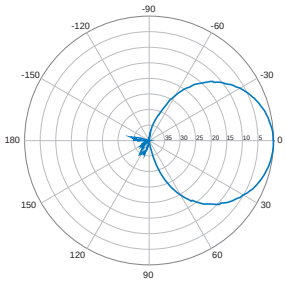
2° | Vertical | 1800 MHz



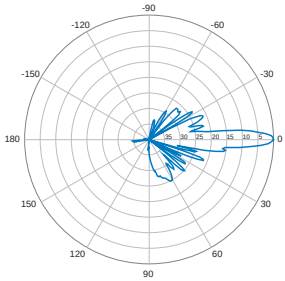
4° | Vertical | 1800 MHz



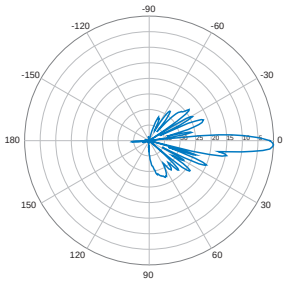
6° | Vertical | 1800 MHz



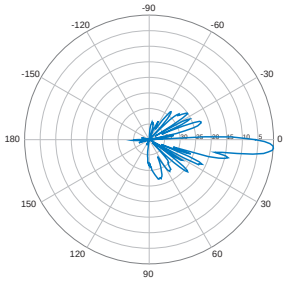
Horizontal | 1900 MHz



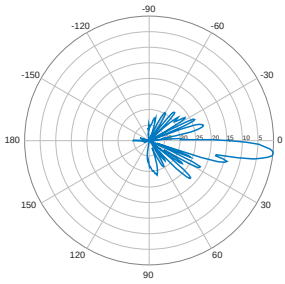
0° | Vertical | 1900 MHz



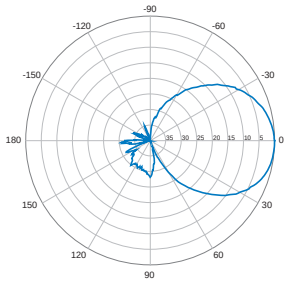
2° | Vertical | 1900 MHz



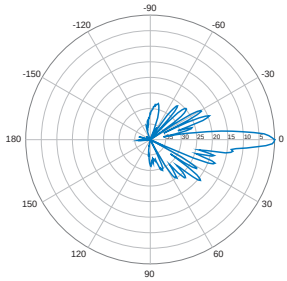
4° | Vertical | 1900 MHz



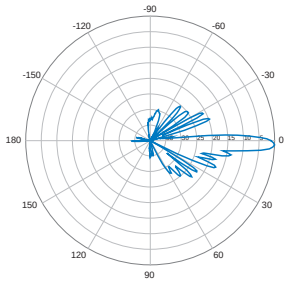
6° | Vertical | 1900 MHz



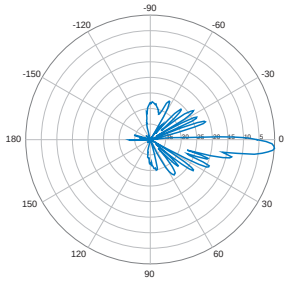
Horizontal | 2100 MHz



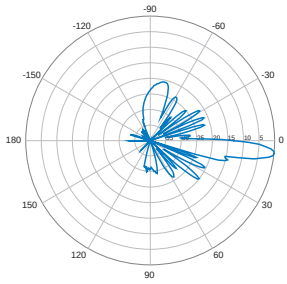
0° | Vertical | 2100 MHz



2° | Vertical | 2100 MHz



4° | Vertical | 2100 MHz



6° | Vertical | 2100 MHz

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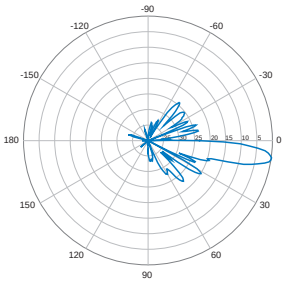
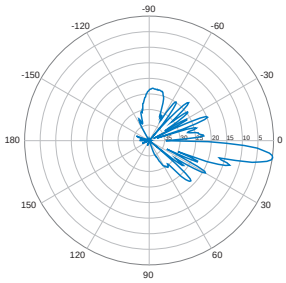
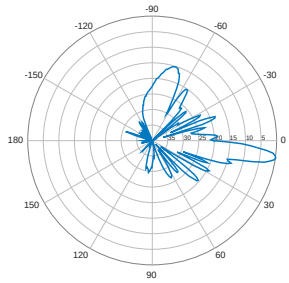


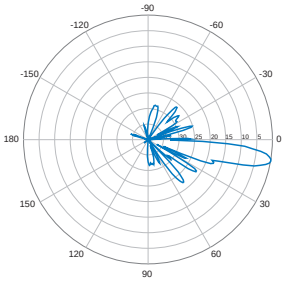
8° | Vertical | 1800 MHz



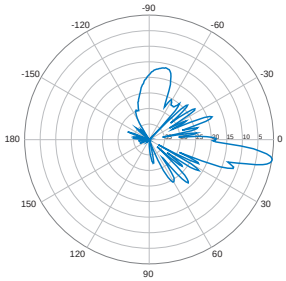
8° | Vertical | 1900 MHz



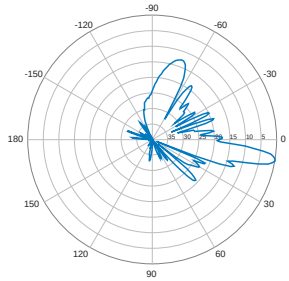
8° | Vertical | 2100 MHz



10° | Vertical | 1800 MHz



10° | Vertical | 1900 MHz



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