

QUAD654CW000x

Dual Band | Quad Port | Panel Antenna | XX-Pol | 68° / 65° | 13.8 / 16.8 dBi | Variable Tilt

- Dual band, quad-port panel antenna with variable electrical tilt
- AWS-3 Ready
- Patented internal RET actuator adds no additional length to the antenna
- Can be ordered with a Multi-Device Dual Unit (MDDU) with two separate inputs for independent control of each band. Ideal for antenna sharing.



Ordering Options	Model Number
When ordering, replace "x" in the model number with one of the options listed below.	
Manual Electrical Tilt	QUAD654CW000M
Remote Electrical Tilt AISG v2.0 / 3GPP with an MDCU RET Actuator	QUAD654CW000G
Remote Electrical Tilt AISG v2.0 / 3GPP with an MDDU RET Actuator	QUAD654CW000L

Mounting bracket kits and other accessories are ordered separately. See options on the following page(s).




Electrical Characteristics	696-960 MHz		1695-2180 MHz		
Frequency Bands (MHz)	696-806	806-960	1695-1850	1850-1990	2100-2180
Polarization	±45°		±45°		
Horizontal Beamwidth	72°	68°	70°	67°	65°
Vertical Beamwidth	19°	16°	8.3°	7.5°	7.0°
Gain	12.9 dBi	13.8 dBi	15.8 dBi	16.5 dBi	16.8 dBi
Electrical Downtilt	0-14°		0-10°		
Impedance	50Ω		50Ω		
VSWR	< 1.5:1		< 1.5:1		
Upper Sidelobe Suppression	> 16 dB Typical		> 15 dB Typical		
Front-to-Back Ratio	> 30 dB		> 28 dB		
In-Band Isolation	> 25 dB		> 28 dB		
Isolation Between Ports	> 30 dB		> 30 dB		
IM3 (2x20W carrier)	< -153 dBc		< -153 dBc		
Input Power	(2x) 500 W		(2x) 250 W		
Total Number of Connectors	Antenna has 4 connectors located at the bottom				
Connectors Per Band	696-960 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)	1298 x 305 x 180 mm		51.1 x 12.0 x 7.1 in	
Weight without Mounting Brackets: MET	11.8 kg		26.0 lbs	
Weight without Mounting Brackets: RET	12.1 kg		26.7 lbs	
Survival Wind Speed	241 km/hr		150 mph	
Wind Loads (160 km/hr or 100 mph)	Front	480 N	108 lbf	
	Side	284 N	64 lbf	

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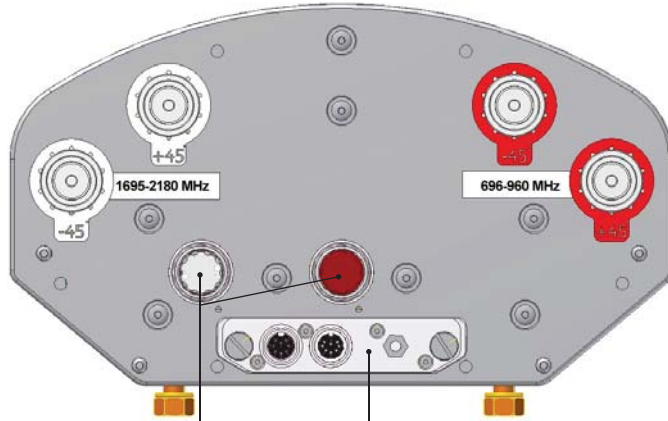
Electrical Downtilt Control				
Electrical downtilt for each band can be controlled separately. Tilt indicator(s) are covered by removable transparent cap(s).				
Manual Electrical Tilt (MET) Control	A colored knob at the end of the tilt indicator allows change of the tilt without need of a tool. The 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 (MDCU)	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	MKS09P01		50-115 mm 2.0-4.5 in	2.7 kg 6 lbs
2-Point Mounting & Downtilt Bracket Kit	MKS09T01		50-115 mm 2.0-4.5 in	4.5 kg 10 lbs

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Bottom View of Antenna



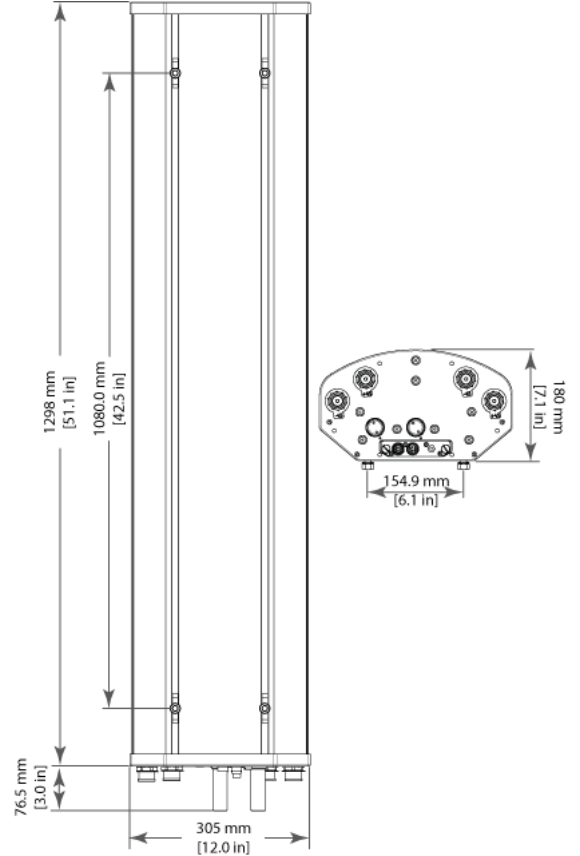
Location of the MDCU or MDDU for RET Control (MDCU shown)

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.

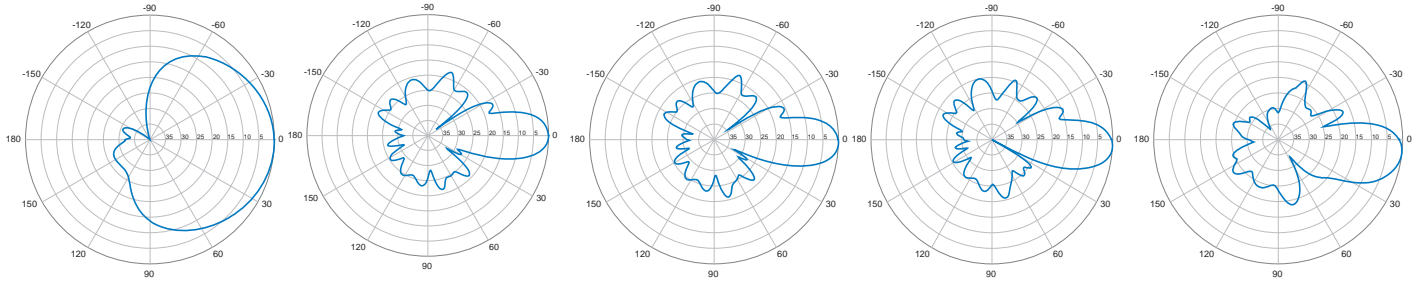
Dimensions



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696-960 MHz



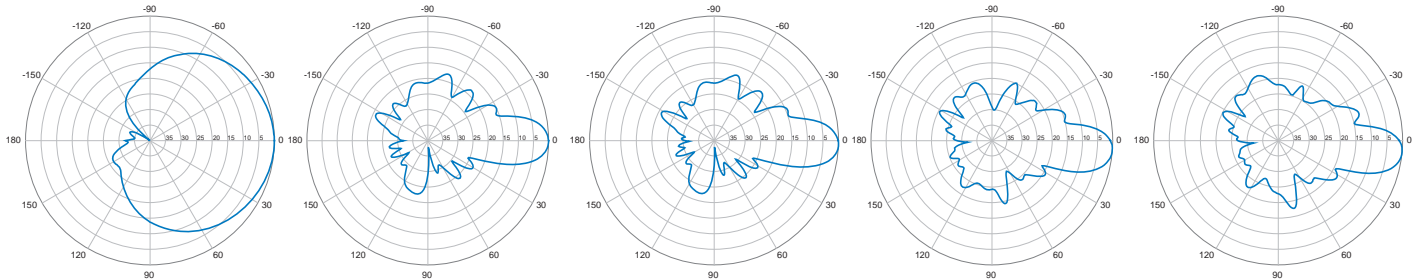
Horizontal | 750 MHz

0° | Vertical | 750 MHz

2° | Vertical | 750 MHz

4° | Vertical | 750 MHz

6° | Vertical | 750 MHz



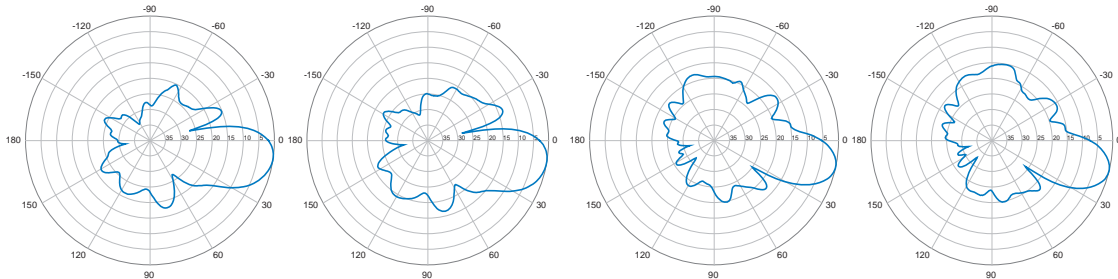
Horizontal | 850 MHz

0° | Vertical | 850 MHz

2° | Vertical | 850 MHz

4° | Vertical | 850 MHz

6° | Vertical | 850 MHz

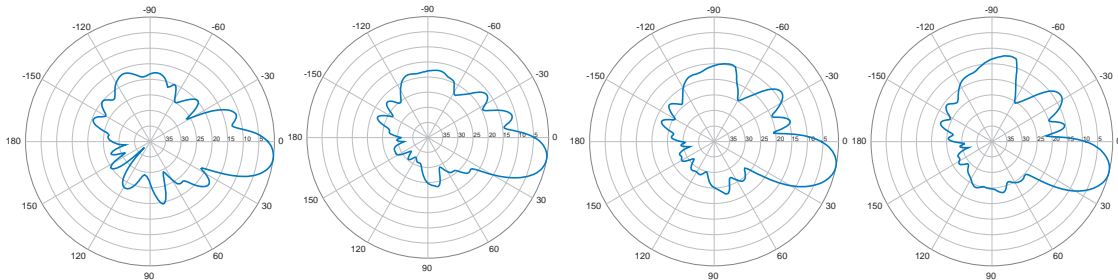


8° | Vertical | 750 MHz

10° | Vertical | 750 MHz

12° | Vertical | 750 MHz

14° | Vertical | 750 MHz



8° | Vertical | 850 MHz

10° | Vertical | 850 MHz

12° | Vertical | 850 MHz

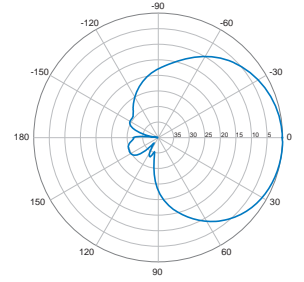
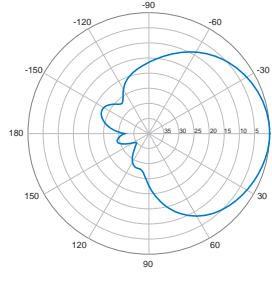
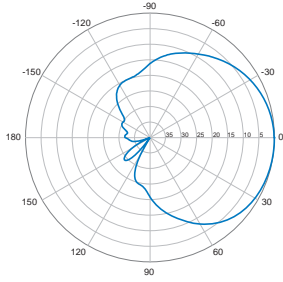
14° | Vertical | 850 MHz

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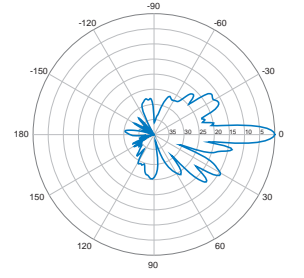
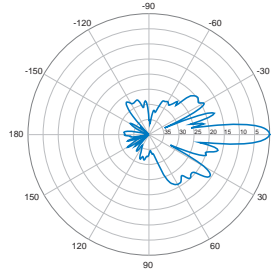
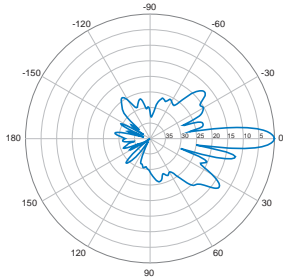
1695-2180 MHz



Horizontal | 1800 MHz

Horizontal | 1900 MHz

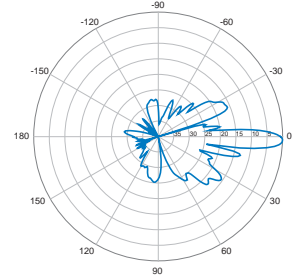
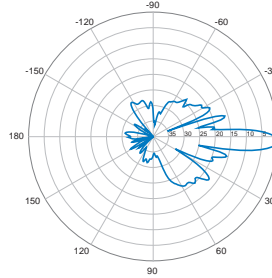
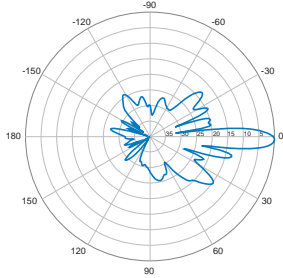
Horizontal | 2100 MHz



0° | Vertical | 1800 MHz

0° | Vertical | 1900 MHz

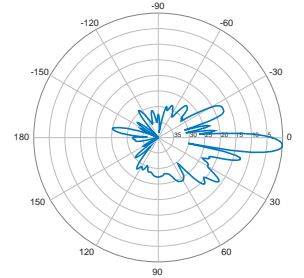
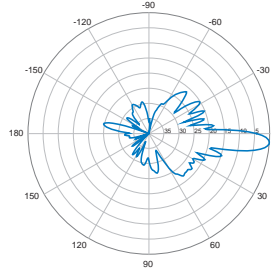
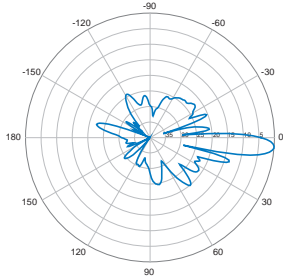
0° | Vertical | 2100 MHz



2° | Vertical | 1800 MHz

2° | Vertical | 1900 MHz

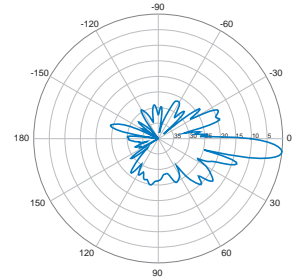
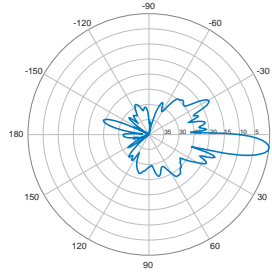
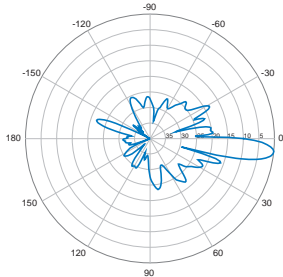
2° | Vertical | 2100 MHz



4° | Vertical | 1800 MHz

4° | Vertical | 1900 MHz

4° | Vertical | 2100 MHz



6° | Vertical | 1800 MHz

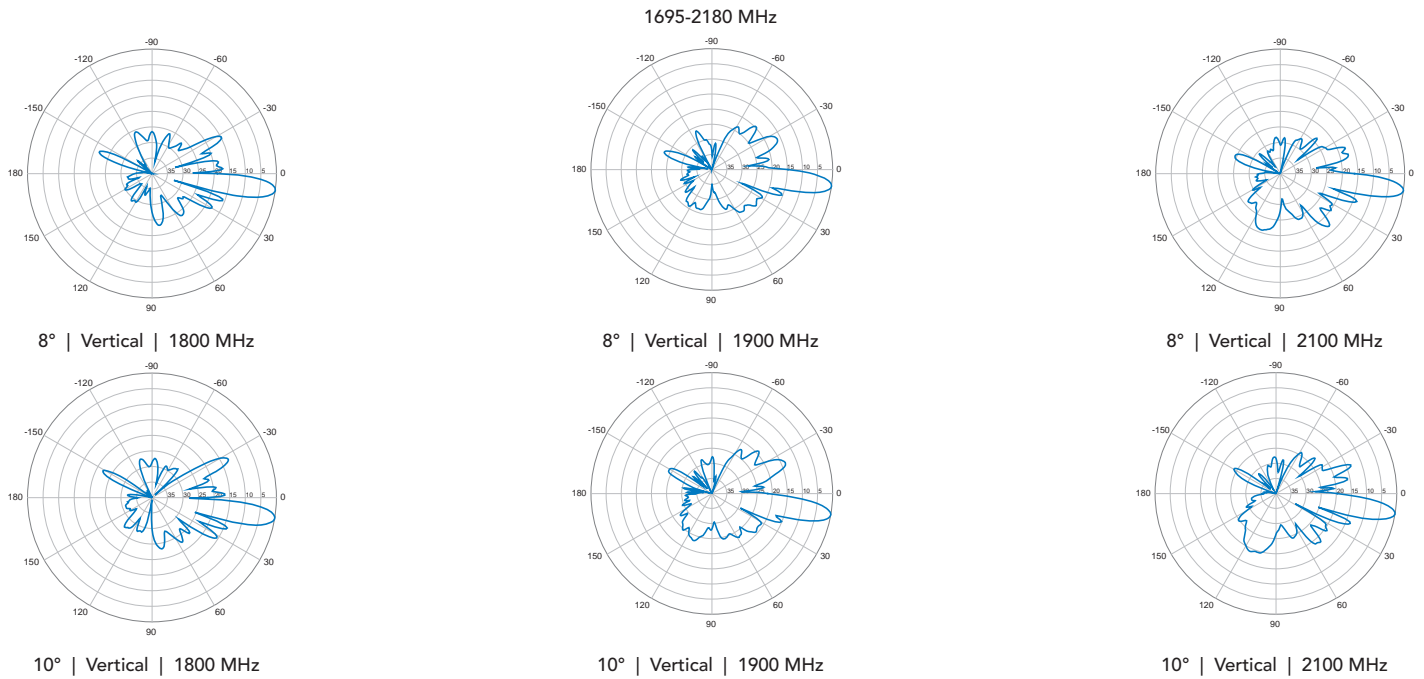
6° | Vertical | 1900 MHz

6° | Vertical | 2100 MHz

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