

## QUAD656W0000x

Twin Band | Quad Port | Panel Antenna | (2x) X-Pol | 65° / 65° | 18.0 / 18.0 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			QUAD656W0000M	
Remote Electrical Tilt AISG v2.0 / 3GPP with an MDCU RET Actuator			QUAD656W0000G	
Remote Electrical Tilt AISG v2.0 / 3GPP with an MDDU RET Actuator			QUAD656W0000L	
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		70°	67°	66°
Vertical Beamwidth		7.0°	6.5°	6.0°
Gain		17.1 dBi	17.7 dBi	18.0 dBi
Electrical Downtilt		0-10°		
Impedance		50Ω		
VSWR		< 1.5:1		
Upper Sidelobe Suppression		> 17 dB Typical		
Front-to-Back Ratio		> 27 dB		
In-Band Isolation		> 30 dB		
Isolation Between Ports		> 30 dB		
IM3 (2x20W carrier)		< -153 dBc		
Input Power		(4x) 250 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)		1906 x 305 x 180 mm	75.0 x 12.0 x 7.1 in	
Weight	Antenna Only	14.8 kg	32.7 lbs	
	Antenna with Mounting Bracket Kit MKS09P02	18.9 kg	41.7 lbs	
	Antenna with Mounting Bracket Kit MKS09T02	21.2 kg	46.7 lbs	
Survival Wind Speed		241 km/hr	150 mph	
Wind Loads (160 km/hr or 100 mph)	Front	707 N	159 lbf	
	Side	419 N	94 lbf	



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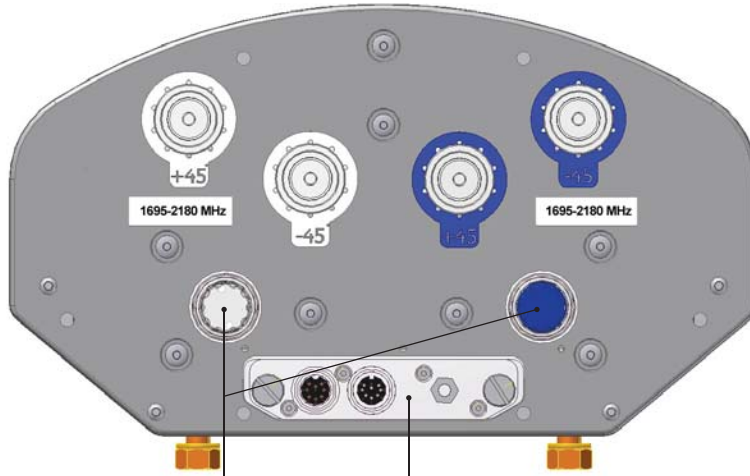
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Electrical Downtilt Control				
Electrical downtilt for each band can be controlled separately. Tilt indicator(s) are covered by removable transparent cap(s).				
Manual Electrical Tilt (MET) Control	A colored knob at the end of the tilt indicator 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	The RET module is factory installed and does not need to be ordered separately.			
	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.				
3-Point Mounting Bracket Kit	MKS09P02		50-115 mm 2.0-4.5 in	4.1 kg 9 lbs
3-Point Mounting & Downtilt Bracket Kit	MKS09T02		50-115 mm 2.0-4.5 in	6.4 kg 14 lbs

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Bottom View of Antenna



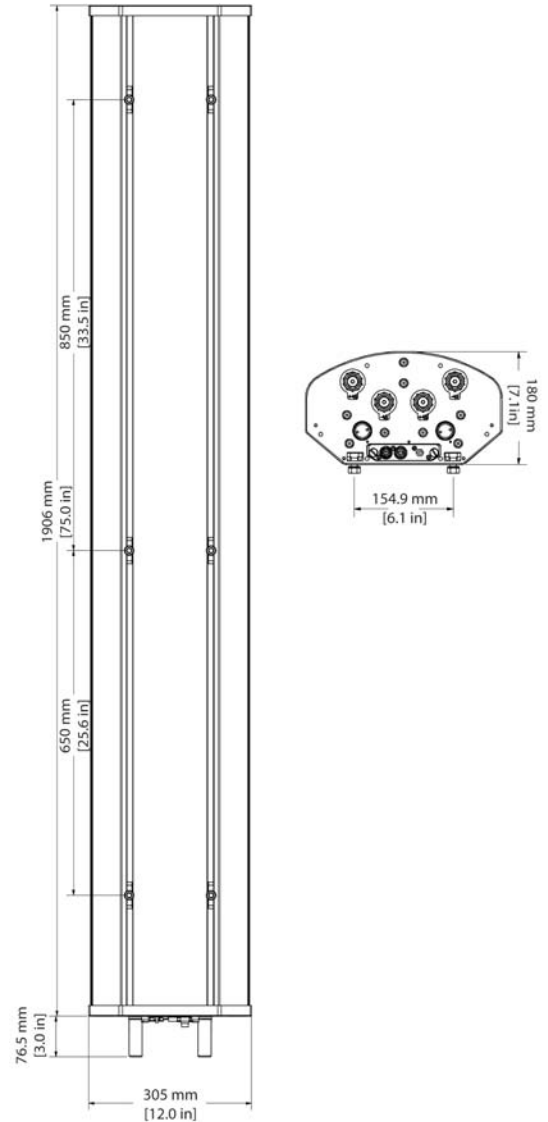
Location of the MDCU or MDDU for RET Control (*MDCU shown*)

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.

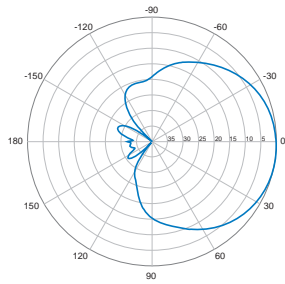
Dimensions



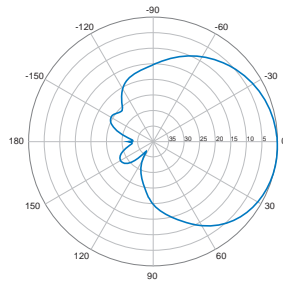
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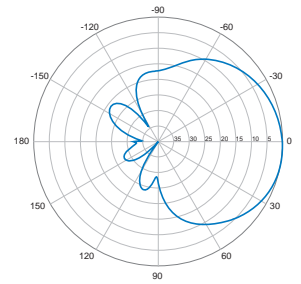
1695-2180 MHz



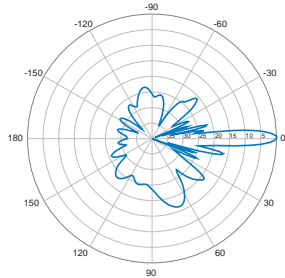
Horizontal | 1800 MHz



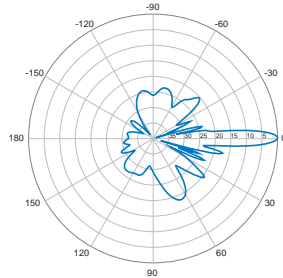
Horizontal | 1900 MHz



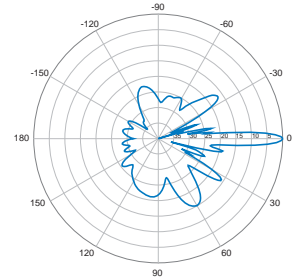
Horizontal | 2100 MHz



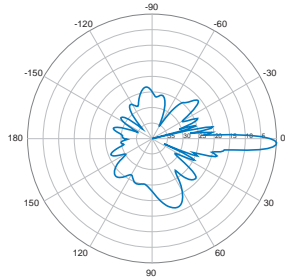
0° | Vertical | 1800 MHz



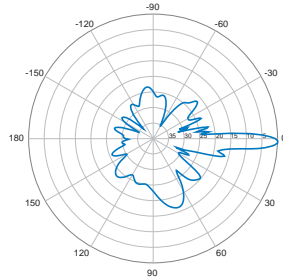
0° | Vertical | 1900 MHz



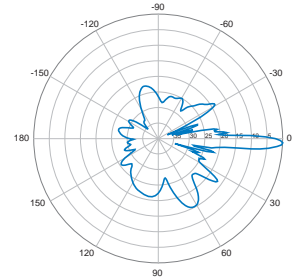
0° | Vertical | 2100 MHz



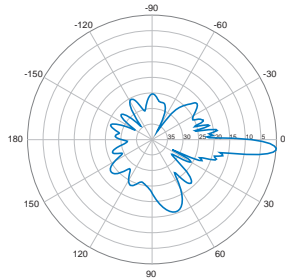
2° | Vertical | 1800 MHz



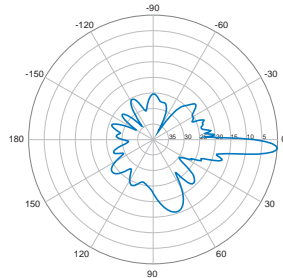
2° | Vertical | 1900 MHz



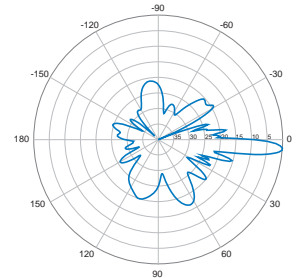
2° | Vertical | 2100 MHz



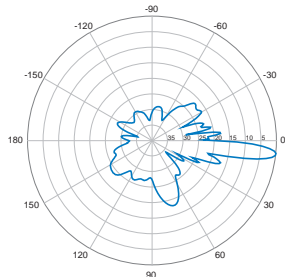
4° | Vertical | 1800 MHz



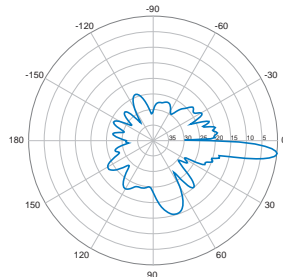
4° | Vertical | 1900 MHz



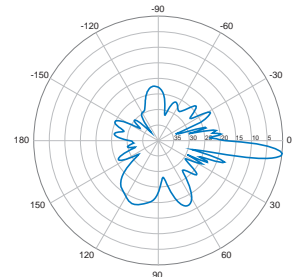
4° | Vertical | 2100 MHz



6° | Vertical | 1800 MHz



6° | Vertical | 1900 MHz



6° | Vertical | 2100 MHz

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