TWIN654CU000x

Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt

- Twin dual band, oct-port panel antenna with variable electrical tilt
- Ultra-wideband frequency
- 4x4 MIMO low band & high band compatible
- 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	TWIN654CU000**M**
Remote Electrical Tilt AISG v2.0 / 3GPP with an MDCU RET Module	TWIN654CU000**G**
Remote Electrical Tilt AISG v2.0 / 3GPP with an MDDU RET Module	TWIN654CU000**L**

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

Electrical Characteristics	(2x) 696-960 MHz		(2x) 1695-2400 MHz			
Frequency Bands (MHz)	696-806	806-960	1695-1850	1850-1990	2100-2180	2200-2400
Polarization	(2x) ±45°		(2x) ±45°			
Horizontal Beamwidth	72°	68°	70°	67°	65°	65°
Vertical Beamwidth	19°	16°	8.3°	7.5°	7.0°	6.1°
Gain	12.9 dBi	13.8 dBi	15.8 dBi	16.5 dBi	16.8 dBi	17.0 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	(4x) 500 W		(4x) 250 W			
Total Number of Connectors	Antenna has 8 connectors located at the bottom					
Connectors Per Band 696-960 MHz	(2x) 7/16-DIN Female					
Connectors Per Band 696-960 MHz	(2x) 7/16-DIN Female					
Connectors Per Band 1695-2400 MHz	(2x) 7/16-DIN Female					
Connectors Per Band 1695-2400 MHz	(2x) 7/16-DIN Female					
Diplexed	No					
Lightning Protection	Direct Ground					
Operating Temperature	-40° to +60° C (-40° to +140° F)					

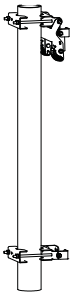
Mechanical Characteristics					
Dimensions (Length x Width x Depth)		1364 x 521 x 180	mm	53.7 x 20.5 x 7.1	in
Weight without Mounting Brackets: MET		26.4	kg	58.2	lbs
Weight without Mounting Brackets: RET		27.0	kg	59.7	lbs
Survival Wind Speed		241	km/hr	150	mph
Wind Area	Front	0.71	m²	7.6	ft²
Wind Area	Side	0.25	m²	2.6	ft²
Wind Loads (160 km/hr or 100 mph)	Front	953	N	214	lbf
Wind Loads (160 km/hr or 100 mph)	Side	300	N	67	lbf

Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

TWIN654CU000x

Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt

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 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 & Downtilt Bracket Kit	36210006		40-115 mm 1.6-4.5 in	4.1 kg 9.0 lbs

TWIN654CU000x

Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt

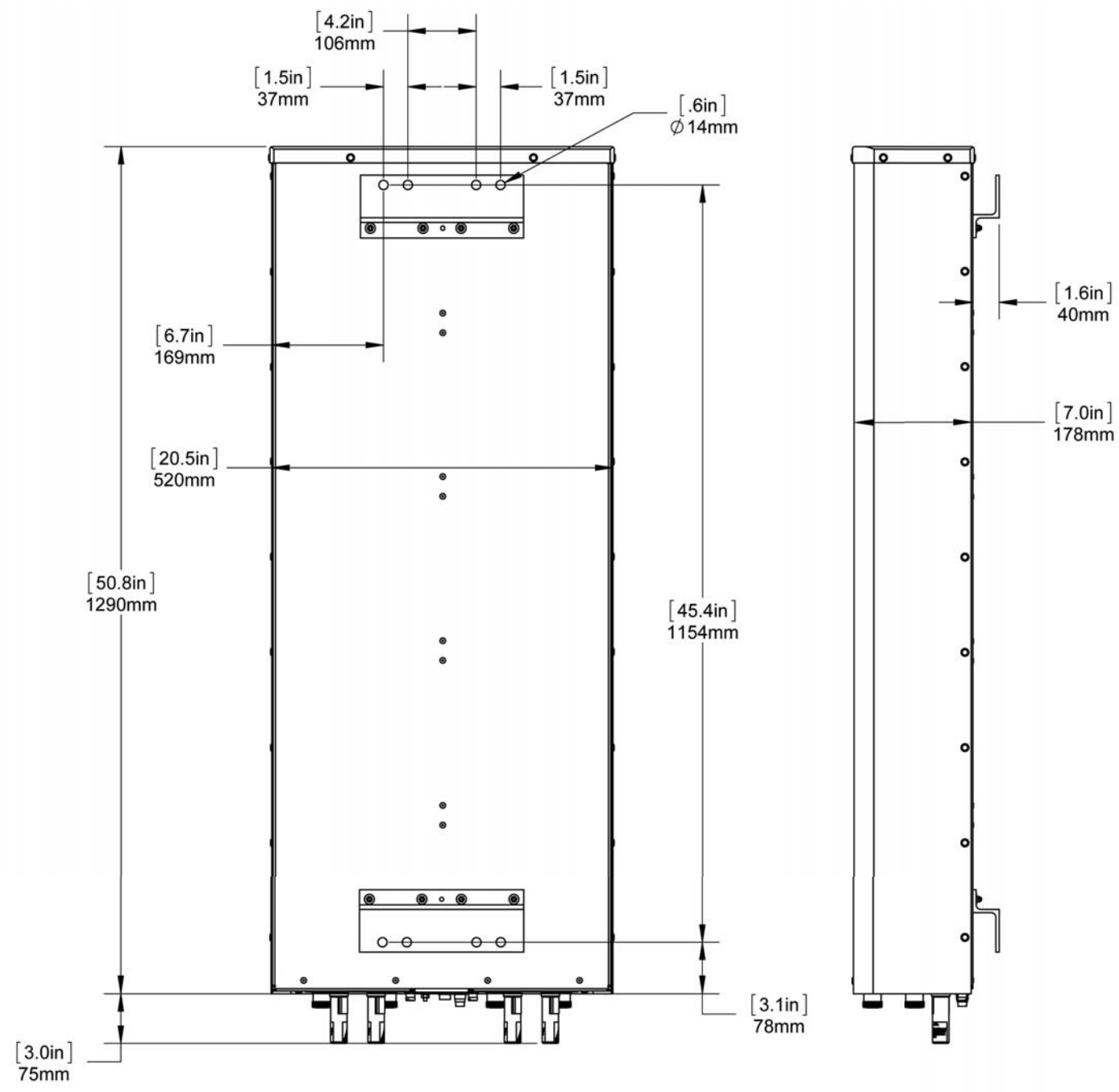
Location of the MDCU or MDDU for RET Control *(MDCU shown)*

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.

TWIN654CU000x

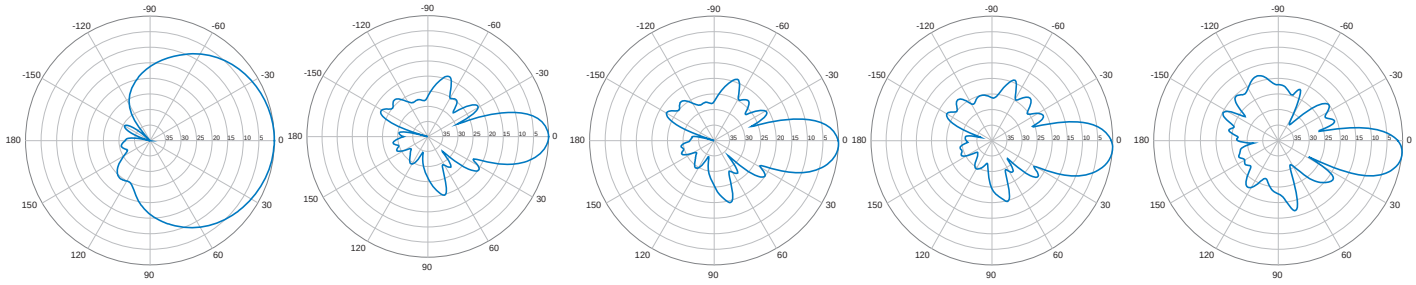
Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt



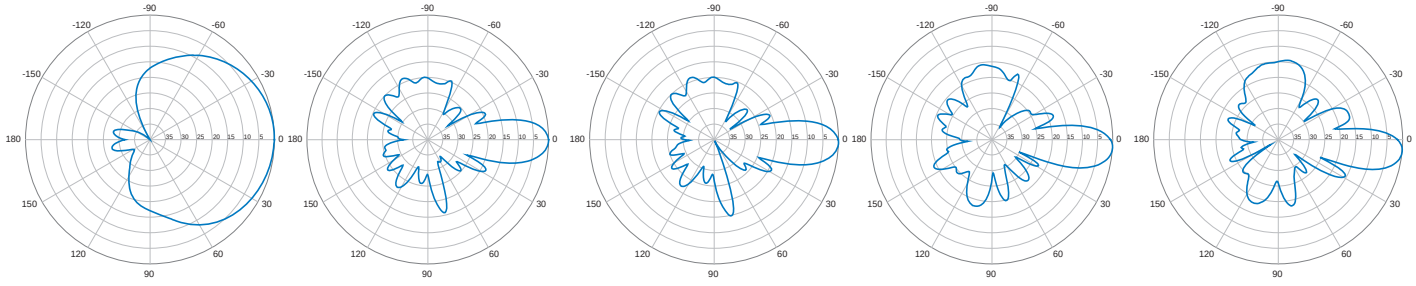
TWIN654CU000x

Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt

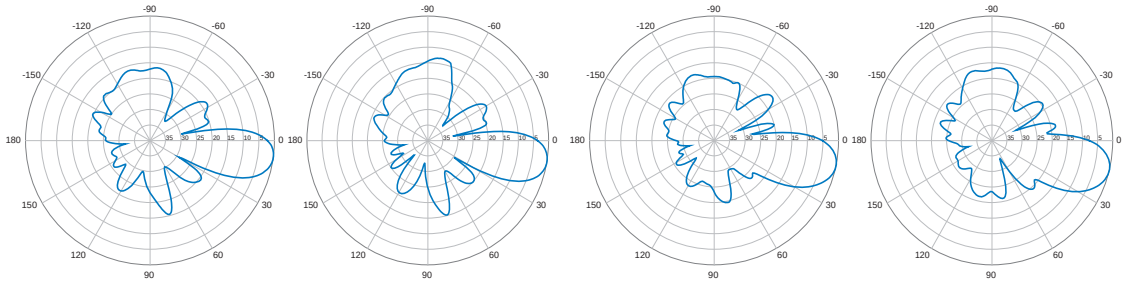
696-960 MHz



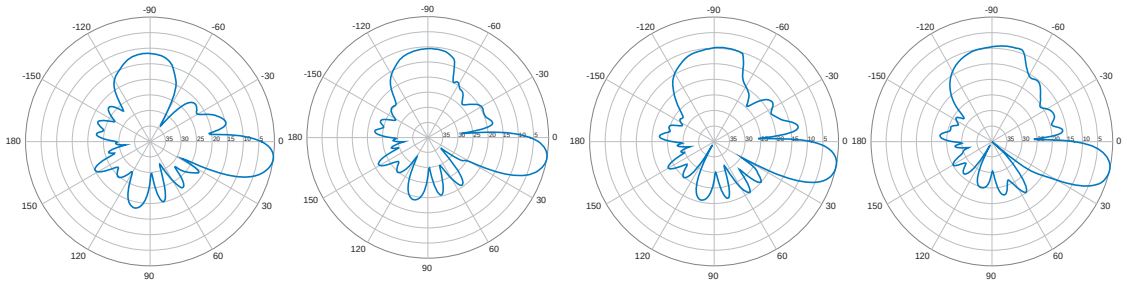
Horizontal | 750 MHz | 0° | Vertical | 750 MHz | 2° | Vertical | 750 MHz | 4° | Vertical | 750 MHz | 6° | Vertical | 750 MHz



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

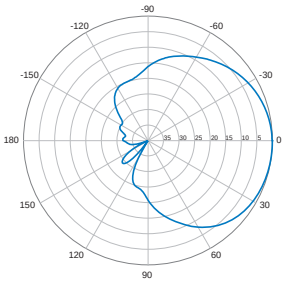


8° | Vertical | 850 MHz | 10° | Vertical | 850 MHz | 12° | Vertical | 850 MHz | 14° | Vertical | 850 MHz

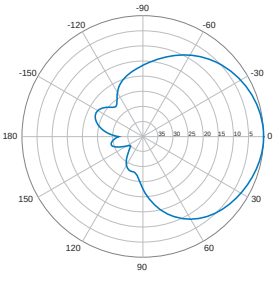
TWIN654CU000x

Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt

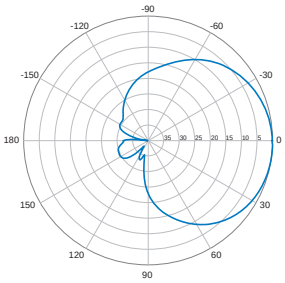
1695-2400 MHz



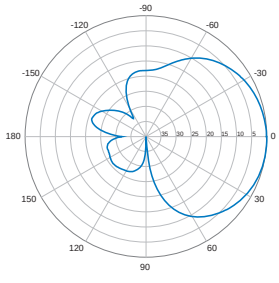
Horizontal | 1800 MHz



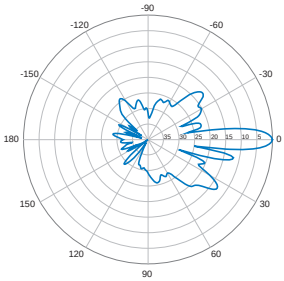
Horizontal | 1900 MHz



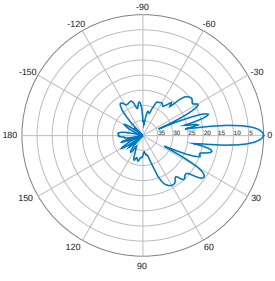
Horizontal | 2100 MHz



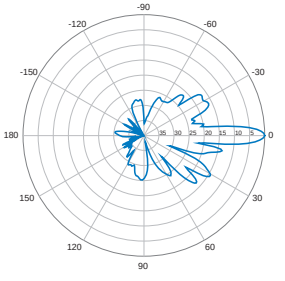
Horizontal | 2400 MHz



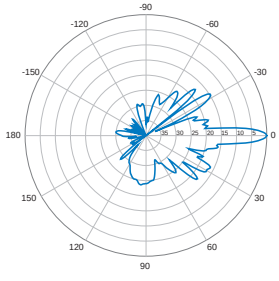
0° | Vertical | 1800 MHz



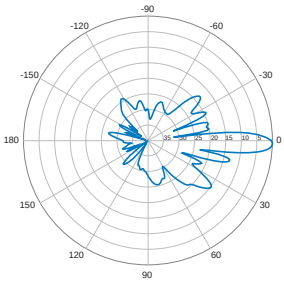
0° | Vertical | 1900 MHz



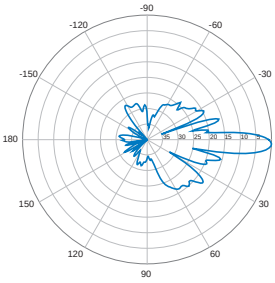
0° | Vertical | 2100 MHz



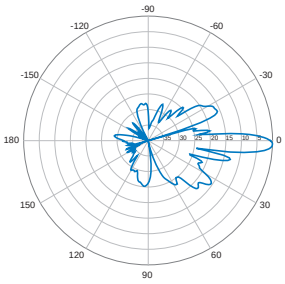
0° | Vertical | 2400 MHz



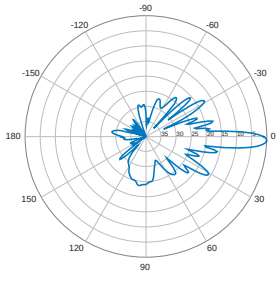
2° | Vertical | 1800 MHz



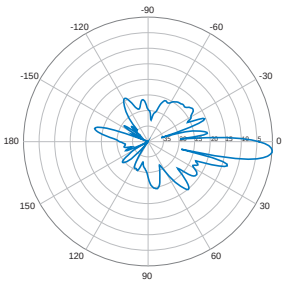
2° | Vertical | 1900 MHz



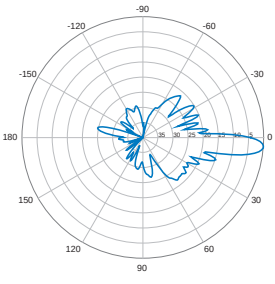
2° | Vertical | 2100 MHz



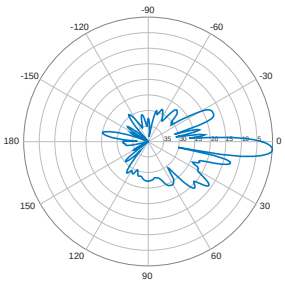
2° | Vertical | 2400 MHz



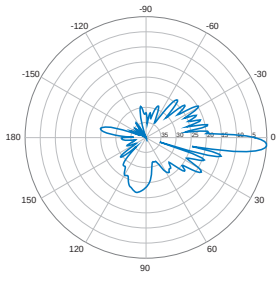
4° | Vertical | 1800 MHz



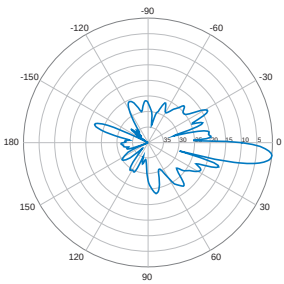
4° | Vertical | 1900 MHz



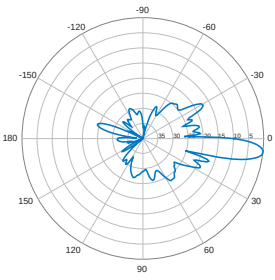
4° | Vertical | 2100 MHz



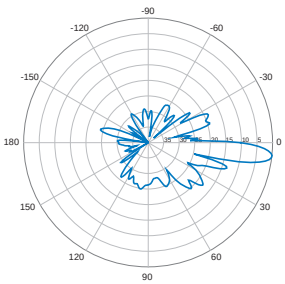
4° | Vertical | 2400 MHz



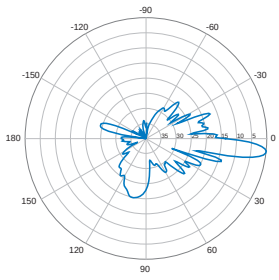
6° | Vertical | 1800 MHz



6° | Vertical | 1900 MHz



6° | Vertical | 2100 MHz



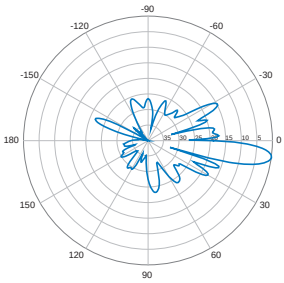
6° | Vertical | 2400 MHz

Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

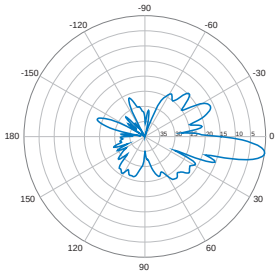
TWIN654CU000x

Twin Dual Band | Oct Port | Panel Antenna | (2x) XX-Pol | 68° / 68° / 65° / 65° | 13.8 / 13.8 / 17.0 / 17.0 dBi | Variable Tilt

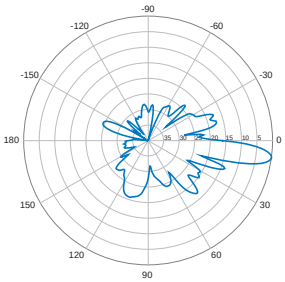
1695-2400 MHz



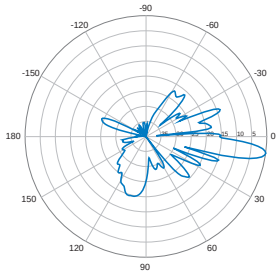
8° | Vertical | 1800 MHz



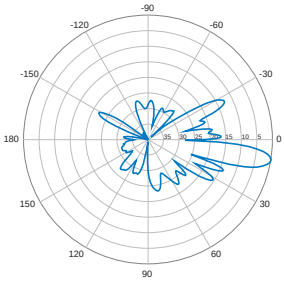
8° | Vertical | 1900 MHz



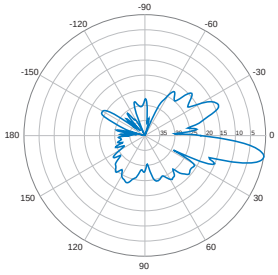
8° | Vertical | 2100 MHz



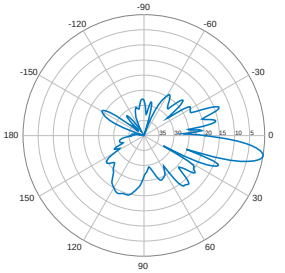
8° | Vertical | 2400 MHz



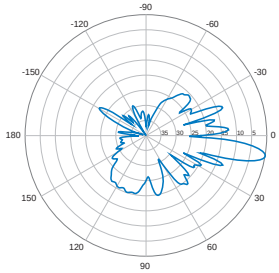
10° | Vertical | 1800 MHz



10° | Vertical | 1900 MHz



10° | Vertical | 2100 MHz



10° | Vertical | 2400 MHz