L000340-01

Ultra-Flexible Tri-Band Vehicle Whip Antenna VHF, UHF, 700/800/900 MHz

The L000340-01 tri-band vehicle whip antenna has been designed as an addition or replacement for existing vehicle whip antennas which accept an M6 x 0.75mm stud.

This antenna operates over VHF, UHF and 700/800/900 MHz bands with impressive gain and consistent radiation patterns across all frequencies.

FEATURES AND BENEFITS

- Tri-band coverage from a single antenna
- M6 x 0.75 stud compatible with the TE Connectivity FP20 auto and other popular vehicular antenna bases
- Rigorously tested for humidity, shock, vibration, impact, bend, pull and more
- Increased flexibility compared to competing products

APPLICATIONS

- Public Safety
- Emergency Services
- First Responders
- Freight
- Transportation

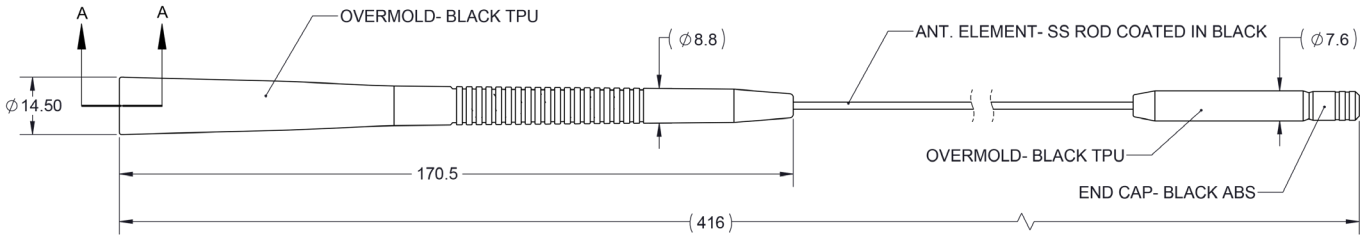
ELECTRICAL SPECIFICATION							
Operating Frequency (MHz)	150-160	160-175	450-485	485-512	735-806	806-870	870-960
VSWR - Typ.	<1.5:1	<1.8:1	<1.5:1	<1.8:1	<1.5:1	<1.5:1	<2.2:1
Peak Gain - Max (dBi)	0.52	0.7	3.80	2.94	3.40	3.40	2.26
Input Max Power (W)	60	60	45	45	35	35	35
Polarization	Linear, Vertical						
Azimuth Beamwidth	360 °, Omnidirectional						
Nominal Impedence (Ohms)	50						

MECHANICAL SPECIFICATION	
Dimensions – height x circumference at base – mm (in.)	416 x 14.5Ø (16.38 x 0.57Ø)
Weight – g (oz.)	38 (1.34)
Connector	M6 x 0.75mm Stud

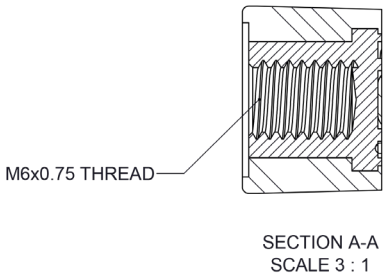
ENVIRONMENTAL SPECIFICATION	
Operating Temperature – °C (°F)	-30 to +85°C (-22 to +185°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Temperature Cycling	IEC 68-2-14; -40°C to +85°C (Storage)
Ingress Protection (IP Rating)	IP67
Humidity	MIL-STD-810G, 507.5, Procedure II, Aggravated Humidity
Thermal Shock	IEC 68-2-14; -25°C to +70°C
Corrosive Atmosphere (Salt Fog/Mist)	MIL-STD-810G, Method 509.5
Vibration	MIL-STD-810G, Method 514.6, Category 4, Highway Truck Vibration
Mechanical Shock	IEC 60068-2-27, Secured Cross Country Vehicles
Impact Test	Fix antenna and strike 3/4 of a distance from the base of the antenna. 1500 strikes, 1 strike per second
Pull Test	20 pound pull on antenna for a duration of 30 seconds
Bend Test	1095 rotary cycles with the antenna bent at a 90° angle
Torque Test	15 lb-in Torque
Material Substance Compliance	RoHS Compliant

MECHANICAL DRAWINGS

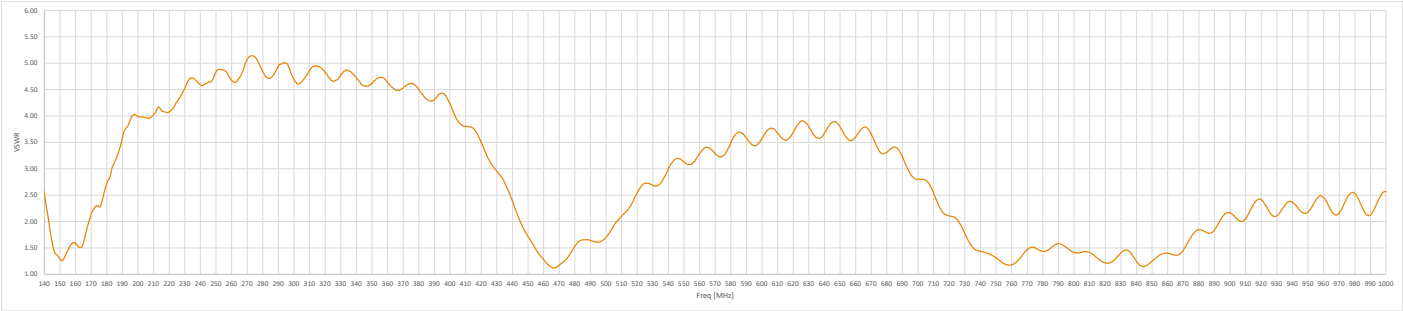
Antenna



M6 Stud Connector

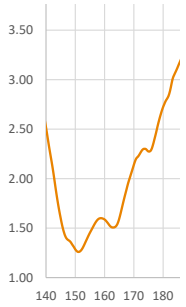


VSWR

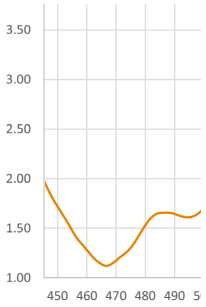


VSWR AT KEY FREQUENCY BANDS

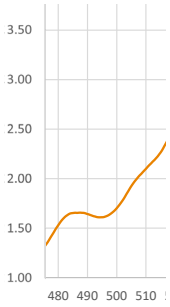
150-175 MHz



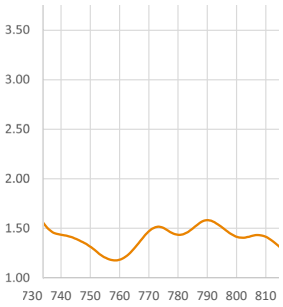
450-485 MHz



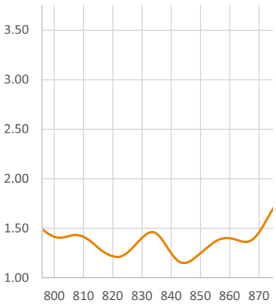
485-512 MHz



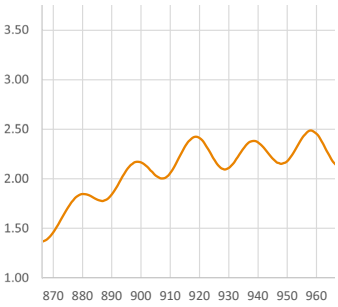
735-806 MHz



806-870 MHz



870-960 MHz



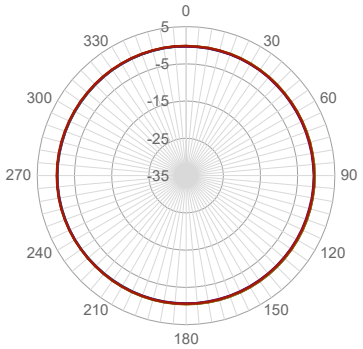
RADIATION PATTERNS

Key

- Test 1
- Test 2
- Test 3
- Test 4
- Test 5
- Test 6

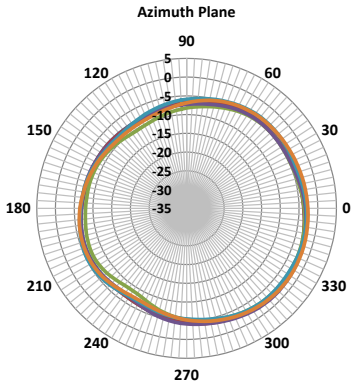
VHF RADIATION PATTERNS

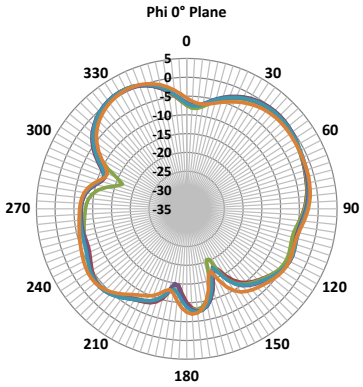
Radiation Pattern at 150-160 MHz

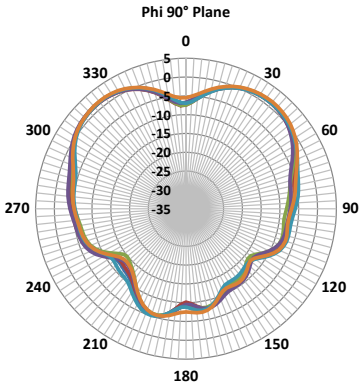


UHF RADIATION PATTERNS

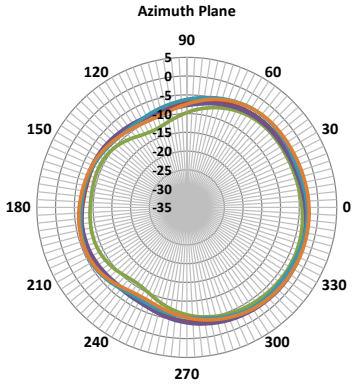
Radiation Pattern at 450 MHz

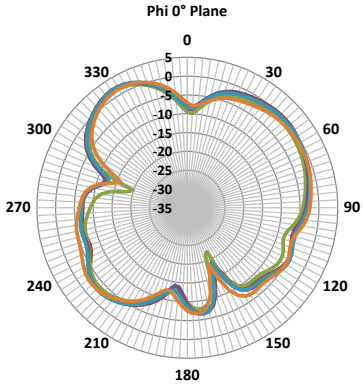


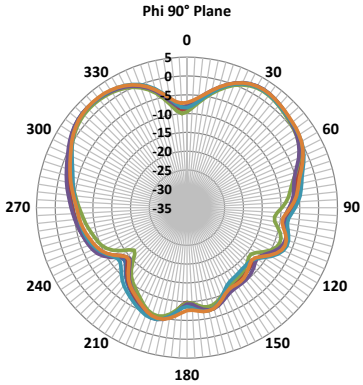




Radiation Pattern at 460 MHz

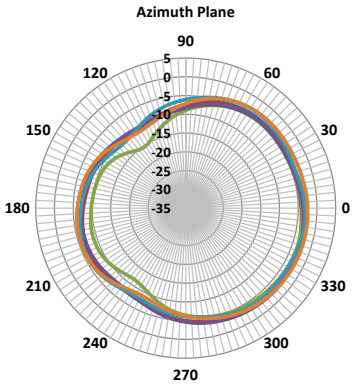


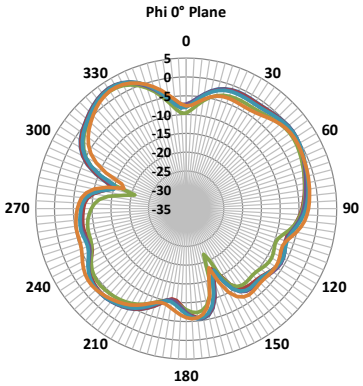


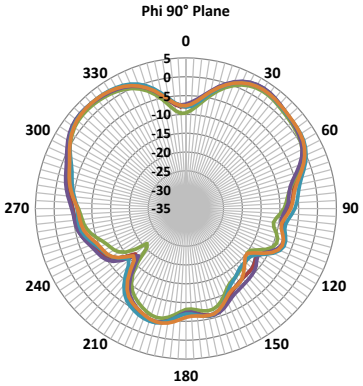


UHF RADIATION PATTERNS

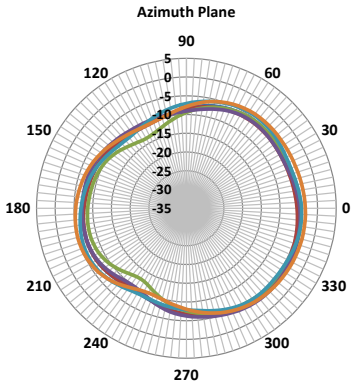
Radiation Pattern at 470 MHz

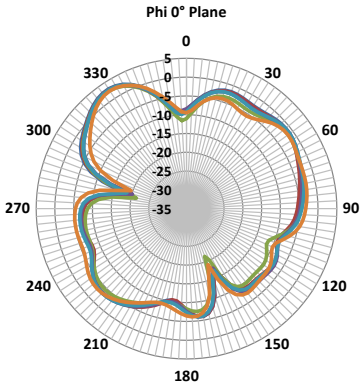


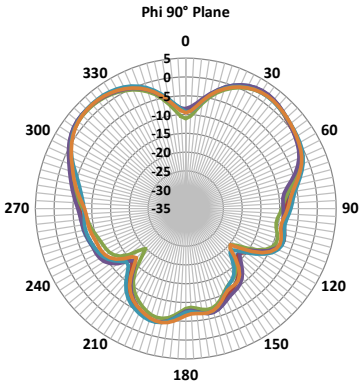




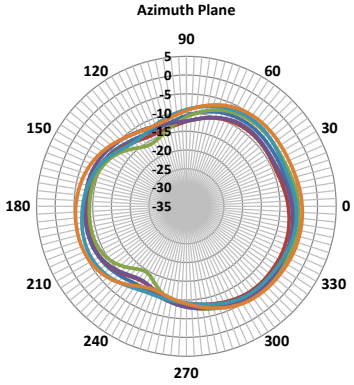
Radiation Pattern at 480 MHz

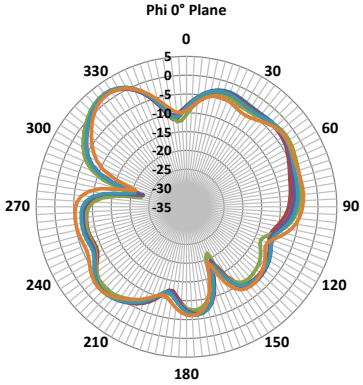


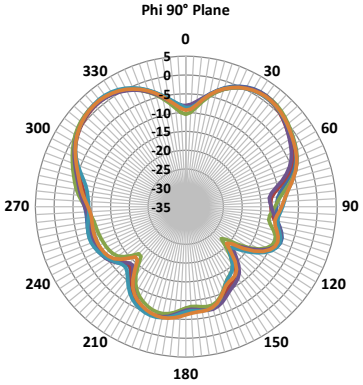




Radiation Pattern at 490 MHz

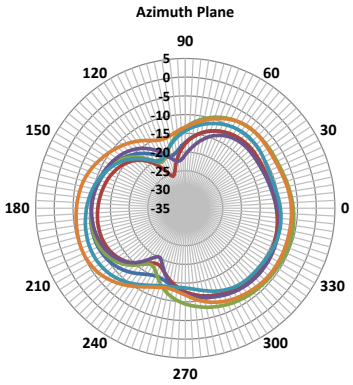


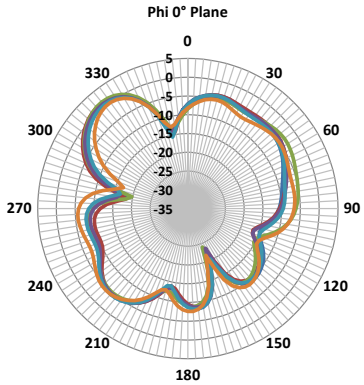


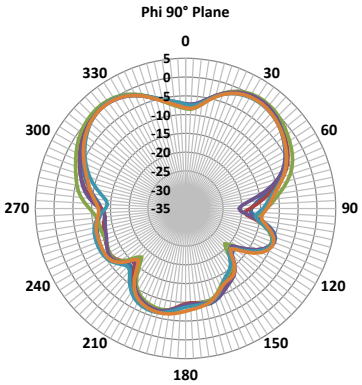


UHF RADIATION PATTERNS

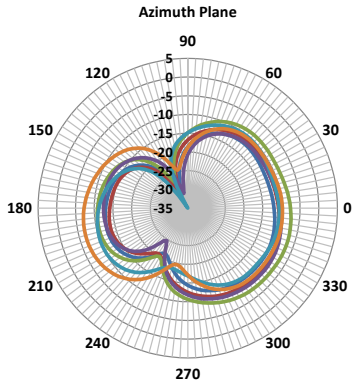
Radiation Pattern at 500 MHz

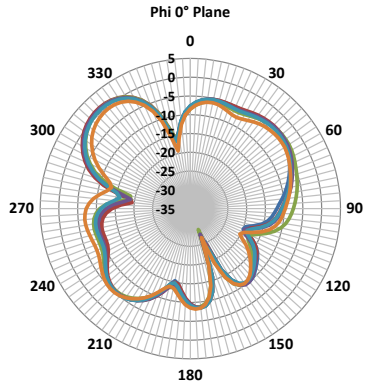


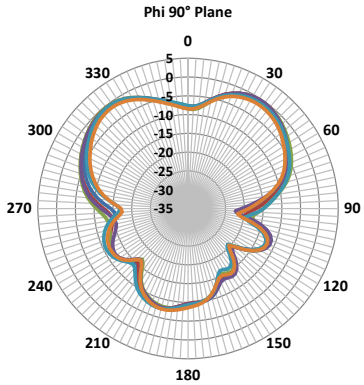




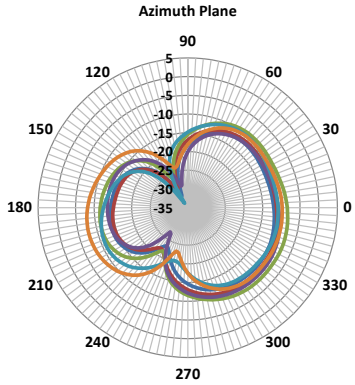
Radiation Pattern at 510 MHz

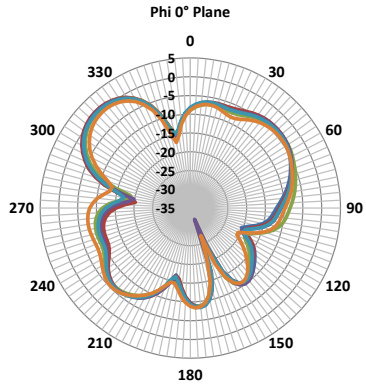


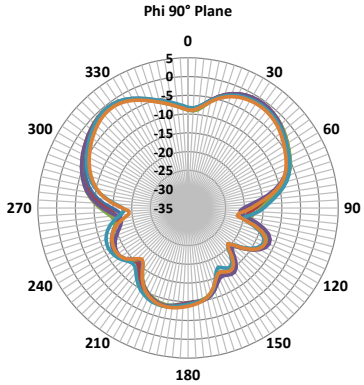




Radiation Pattern at 515 MHz

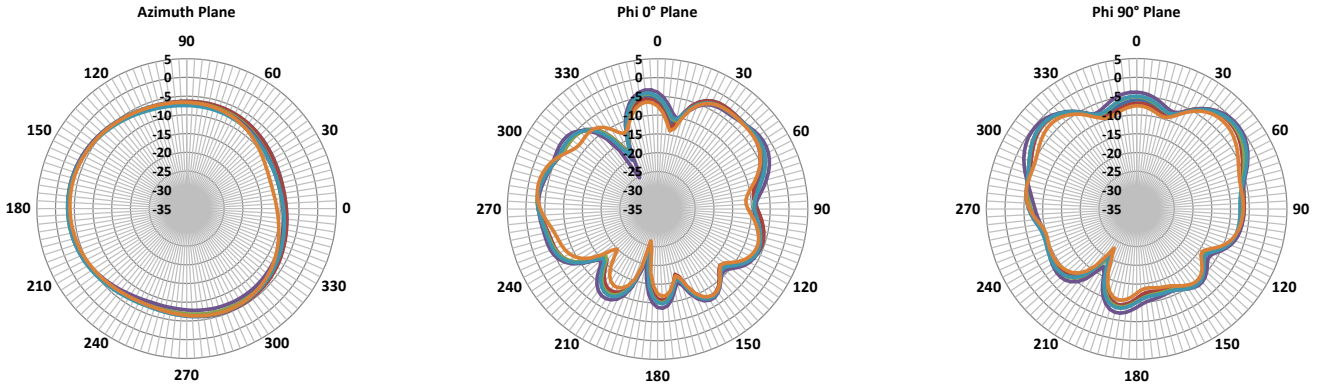




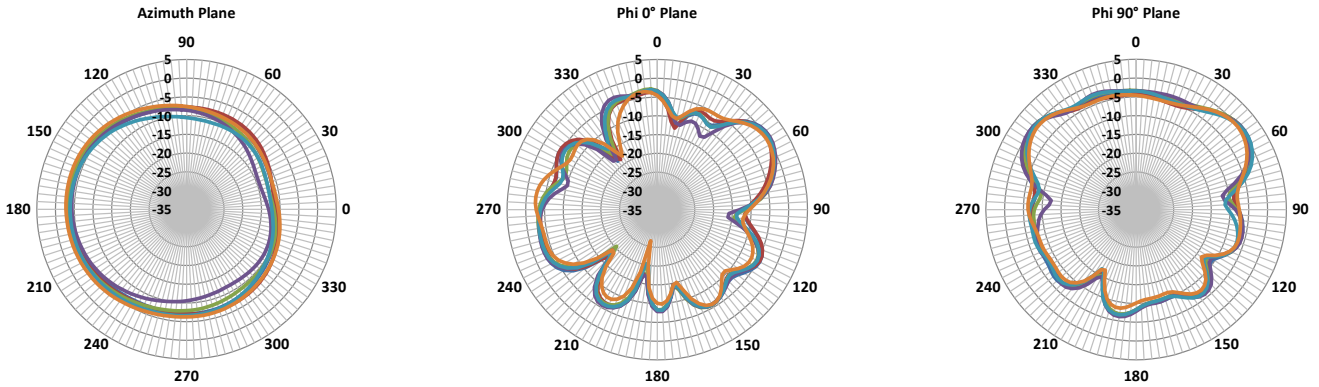


700/800 MHZ RADIATION PATTERNS

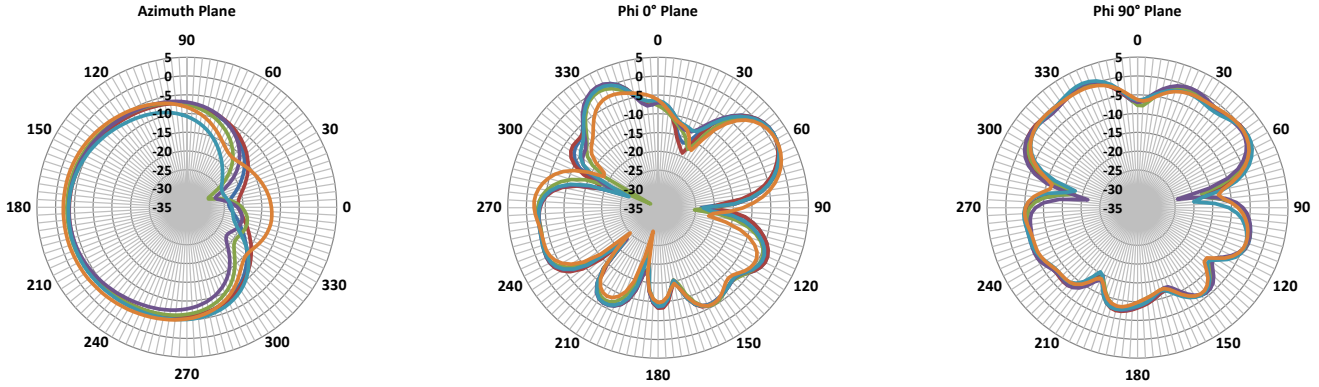
Radiation Pattern at 745 MHz



Radiation Pattern at 770 MHz

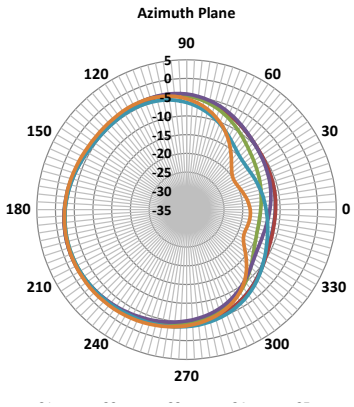


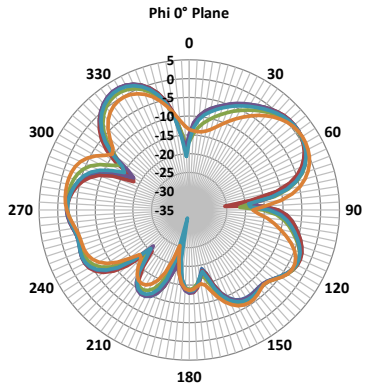
Radiation Pattern at 790 MHz

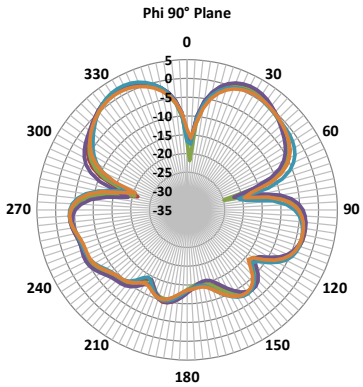


7/800 MHZ RADIATION PATTERNS

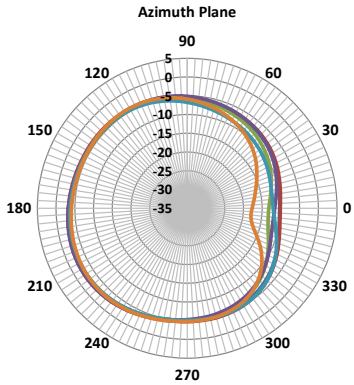
Radiation Pattern at 810 MHz

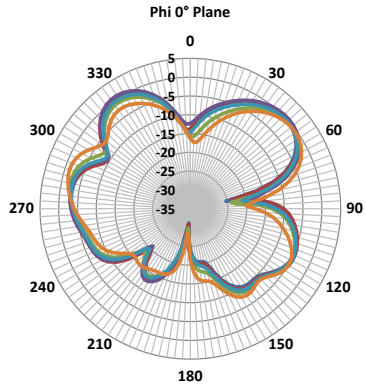


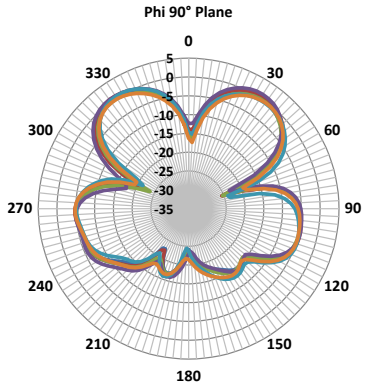




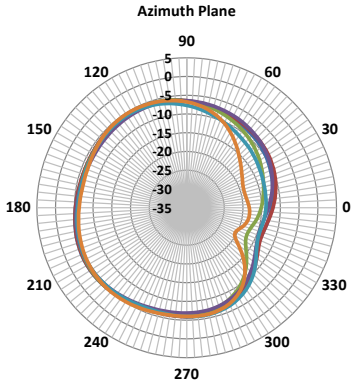
Radiation Pattern at 830 MHz

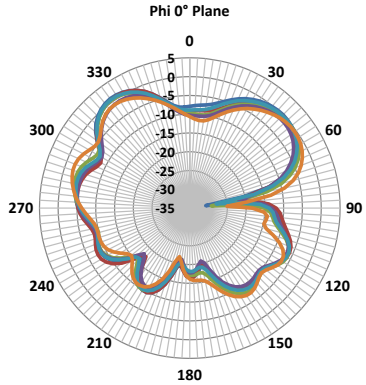


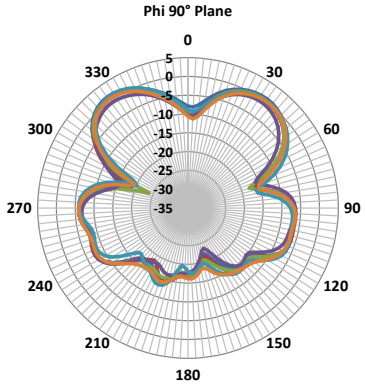




Radiation Pattern at 850 MHz

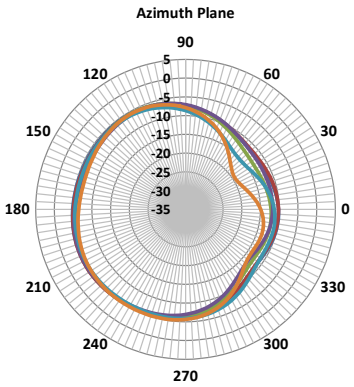


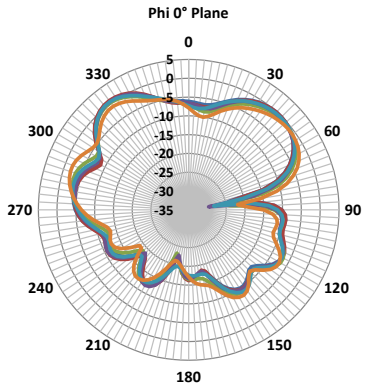


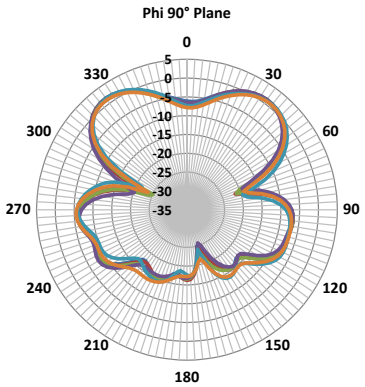


7/800 MHZ RADIATION PATTERNS

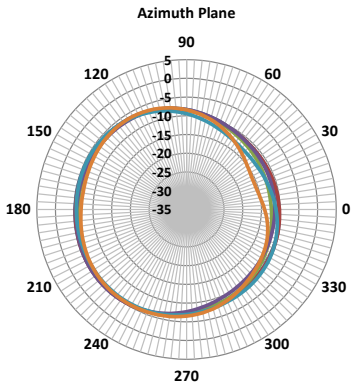
Radiation Pattern at 860 MHz

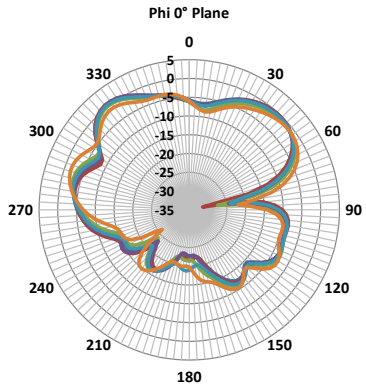


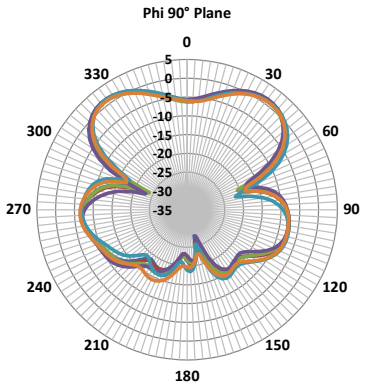




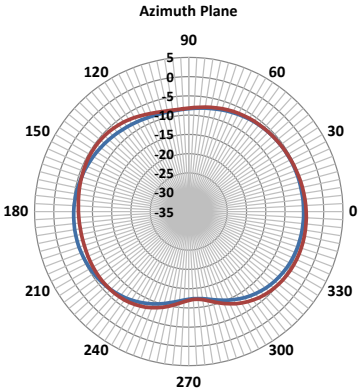
Radiation Pattern at 870 MHz

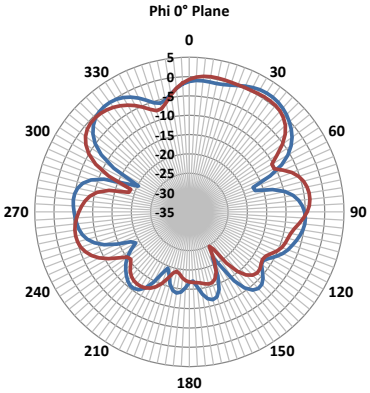


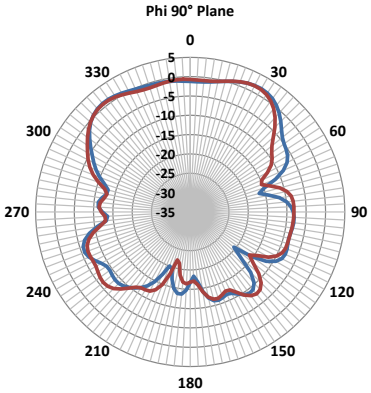




Radiation Pattern at 880 MHz

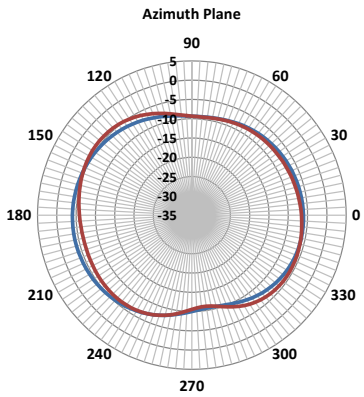


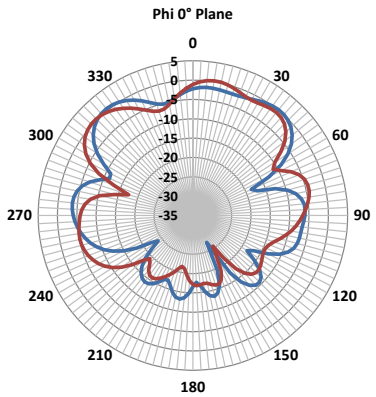


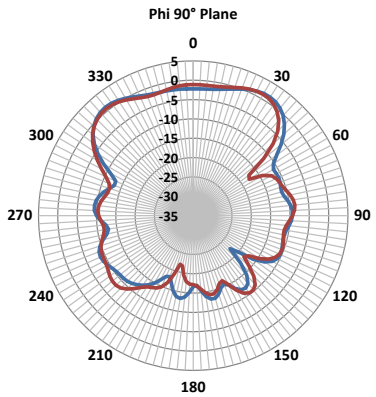


880-960 MHZ RADIATION PATTERNS

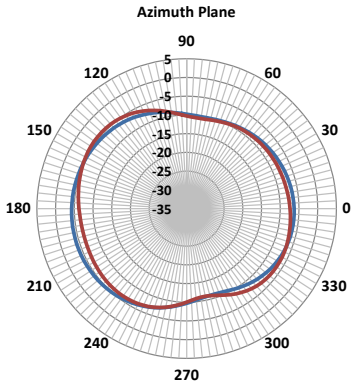
Radiation Pattern at 896 MHz

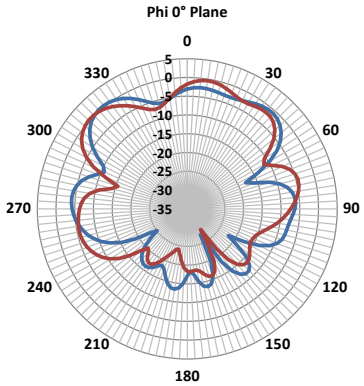


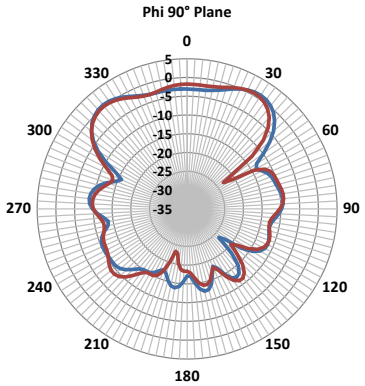




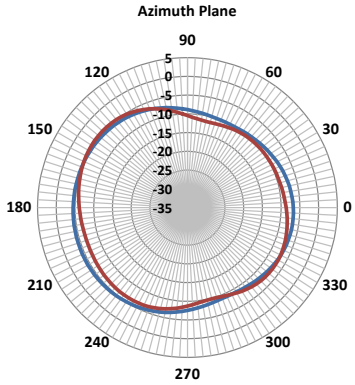
Radiation Pattern at 902 MHz

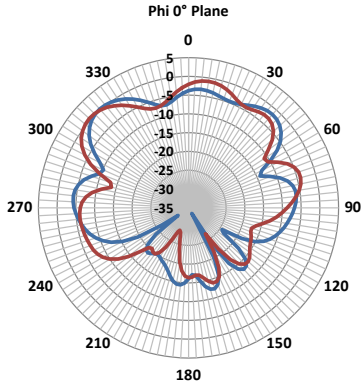


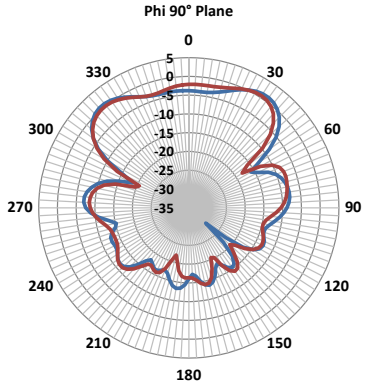




Radiation Pattern at 915 MHz

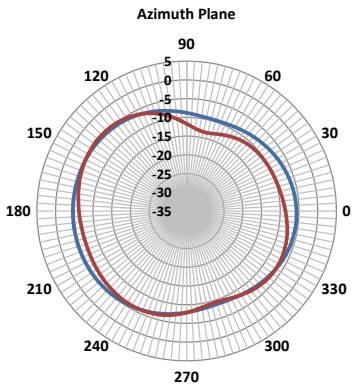


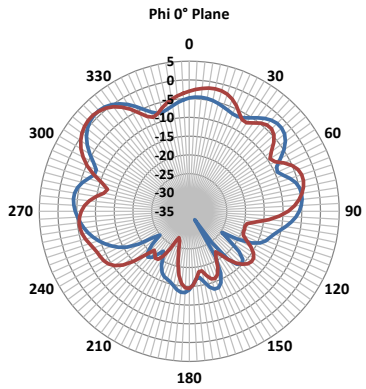


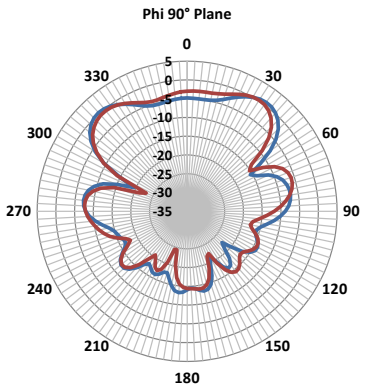


880-960 MHZ RADIATION PATTERNS

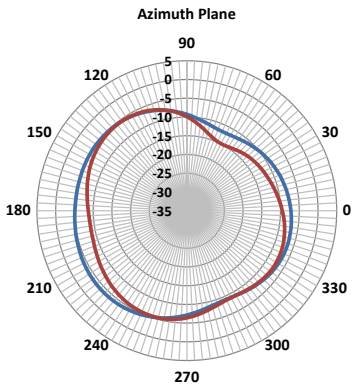
Radiation Pattern at 935 MHz

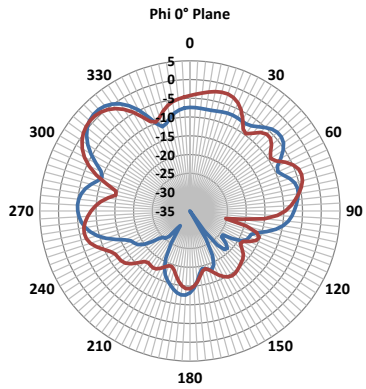


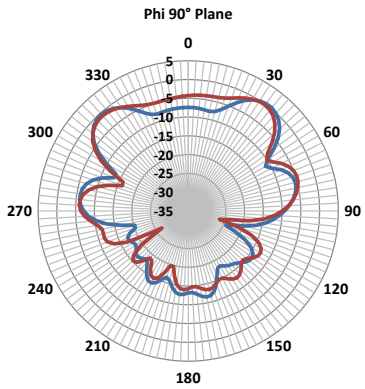




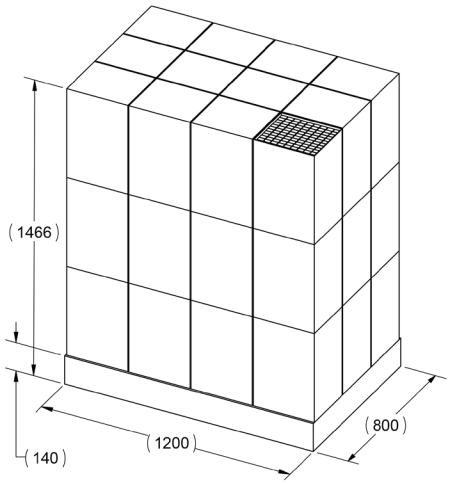
Radiation Pattern at 960 MHz



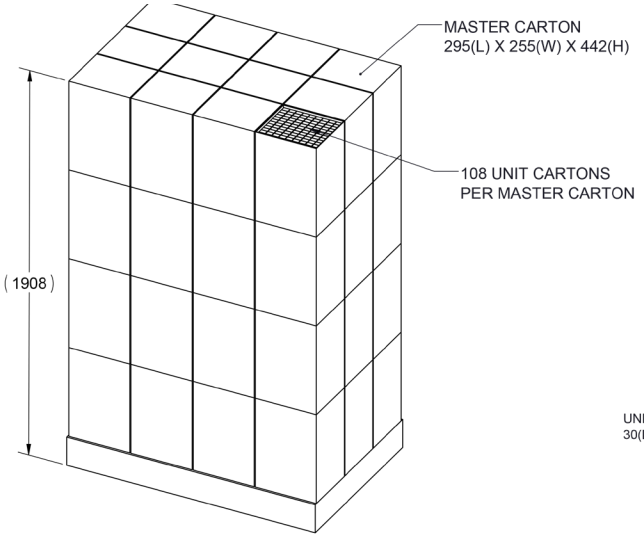




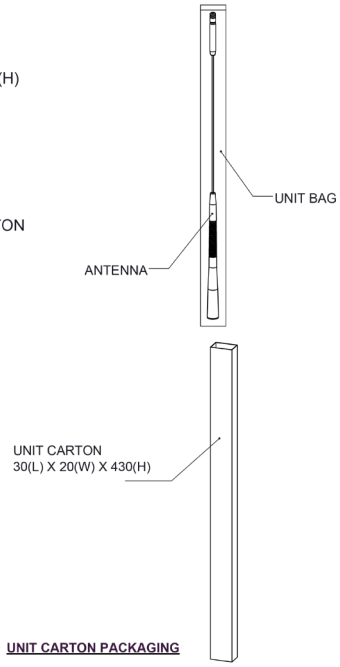
PACKING INFORMATION



AIR PALLET



OCEAN PALLET



UNIT CARTON PACKAGING

PACKAGED DIMENSIONS	UNIT CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	108	3888	5184
Height mm(in)	430 (16.93)	442 (17.40)	1466 (57.71)	1908 (75.12)
Length mm(in)	30 (1.18)	295 (11.61)	1200 (47.24)	1200 (47.24)
Width mm(in)	20 (0.79)	255 (10.04)	800 (31.50)	800 (31.50)
Est. Shipping Weight kg (lbs)	0.06 (0.13)	6.8 (14.50)	275 (606.27)	356 (784.85)

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