



## 5G PHANTOM NO GROUND PLANE REQUIRED ANTENNAS

### Ground Plane Independent Low Profile Omni Antennas

The 5G Phantom no ground plane antenna series cover either 617-7125 or 698-7125 MHz in a ground plane independent format. Offering global cellular coverage, without the need for a fixed ground plane, even for regions where the lower 600 MHz band is required. They deliver high levels of average efficiency, over 95% up to 4200 MHz, and gain up to 8.0 dBi in an IP67-rated, compact form factor.

A direct-mount, threaded stud, with superior quality and integrated N-female connector provides tamper-resistant installation. The direct coaxial connection ensures performance remains consistent, even at the higher frequencies, avoiding the performance losses of other mounting methods.

### FEATURES AND BENEFITS

- Global cellular coverage – Available in 617-7125 MHz and 698-7125 MHz variants
- Minimum gain ripple around the horizon (Azimuth Plane) there is excellent consistency with minimal shifting gain
- Connectivity where you need it – Uniform azimuth patterns reduce the chance of signal drop outs
- Rugged, robust construction – Tamper-resistant and highly durable with IP67-rated enclosure and UL 94 flammability rating

#### ELECTRICAL SPECIFICATION

Part Number	FTRA6171M6PBN-001/ FTRA6171M6PWN-001						
Operating Frequency (MHz)	617-960	1427-1695	1695-2700	3300-4200	4400-6000	6000-6500	6500-7125
VSWR - Max	2.5:1	2.0:1	2.0:1	2.5:1	3.5:1	3.5:1	3.5:1
Peak Gain - Average (dBi)	0.2	1.6	3.3	6.1	7.5	7.9	8.6
Efficiency (%) Avg.	59	94	86	95	84	78	87
Part Number	FTRA6971M6PBN-001/ FTRA6971M6PWN-001						
Operating Frequency (MHz)	698-960	1427-1695	1695-2700	3300-4200	4400-6000	6000-6500	6500-7125
VSWR - Max	2.5:1	2.0:1	2.0:1	2.5:1	3.5:1	3.5:1	3.5:1
Peak Gain - Average (dBi)	0.4	1.1	2.7	5.7	6.6	7.4	8.1
Efficiency (%) Avg.	61	87	93	96	80	80	88
Polarization	Vertical						
Azimuth Beamwidth (All Models)	360 °, Omnidirectional						
Nominal Impedance (Ohms)	50						

## MECHANICAL SPECIFICATION

Dimensions - height x circumference - mm (in.)	113 x 47.3Ø (4.45 x 1.86) - 617-7125 MHz Models 96.5 x 47.3 Ø (3.80 x 1.86) - 698-7125 MHz Models
Weight - g (oz.)	280.9 (9.91)
Connector	Type N (female)
Radome	PolyCarbonate

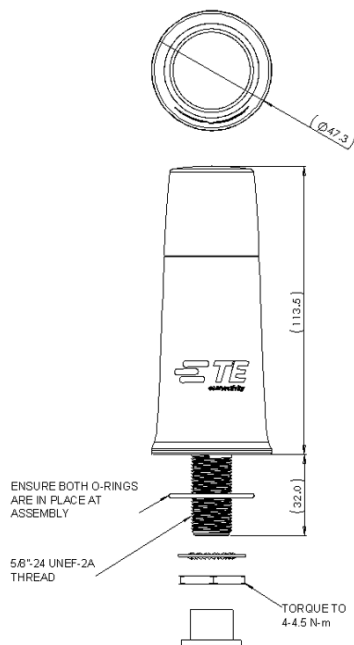
## ENVIRONMENTAL SPECIFICATION

Operating Temperature - °C (°F)	-55 to +85°C (-67 to +185°F)
Storage Temperature - °C (°F)	-55 to +85°C (-67 to +185°F)
Ingress Protection (IP Rating)	IP67
Flammability Rating	UL94
Material Substance Compliance	RoHS Compliant

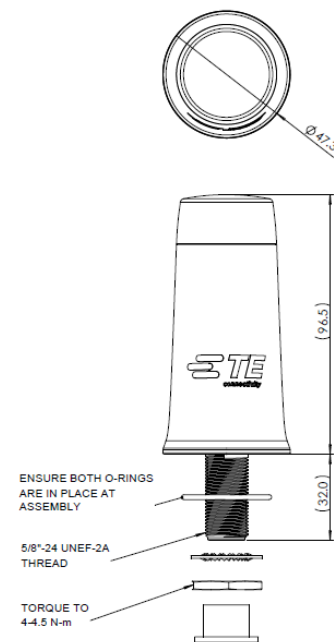
PART NUMBER	CONNECTOR	COLOR	FREQUENCY
FTRA6171M6PBN-001	Type N (female)	Black	617-7125 MHz
FTRA6171M6PWN-001	Type N (female)	White	617-7125 MHz
FTRA6971M6PBN-001	Type N (female)	Black	698-7125 MHz
FTRA6971M6PWN-001	Type N (female)	White	698-7125 MHz

## MECHANICAL DRAWINGS

FTRA6171M6PBN-001 & FTRA6171M6PWN-001



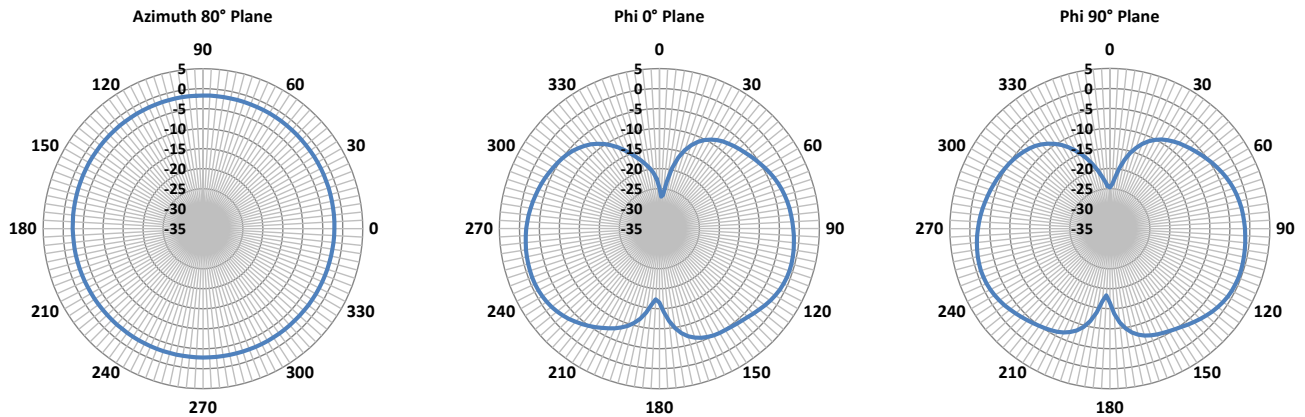
FTRA6971M6PBN-001 & FTRA6971M6PWN-001



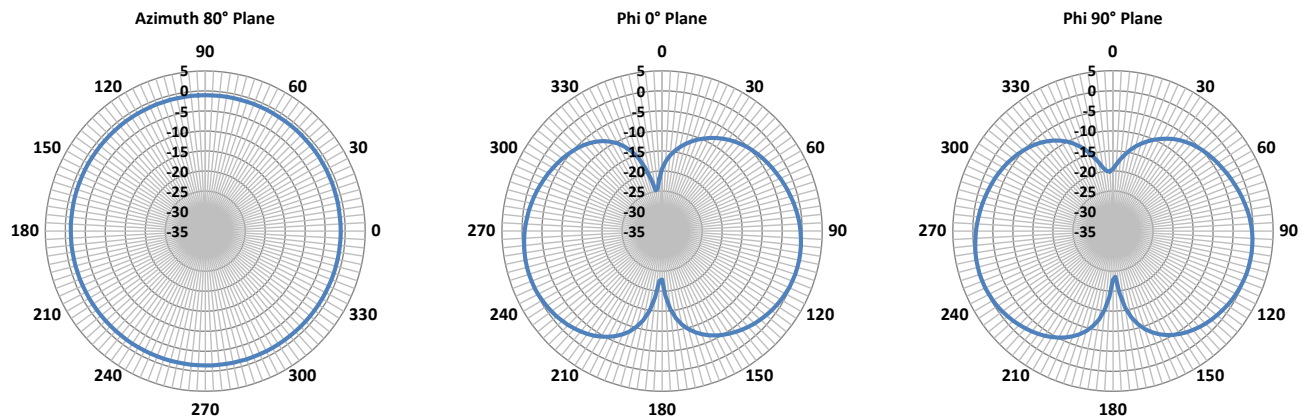
## RADIATION PATTERNS

The radiation patterns below are representative of both the 617-7125 and 698-7125 5G Phantom ground plane independent models. If required a full data set can be made available via our experience engineering teams.

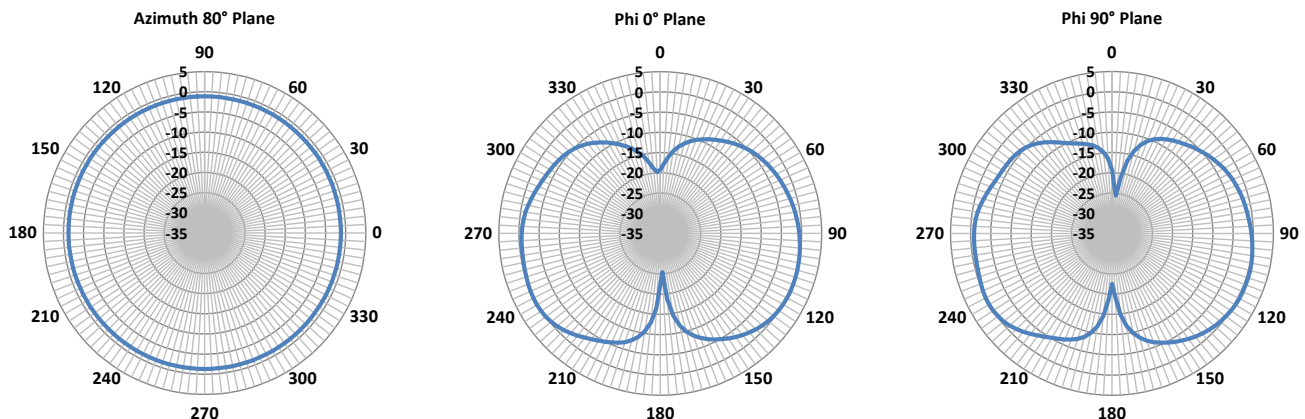
### Radiation Patterns at 617 MHz (FTRA6171M6 Models Only)



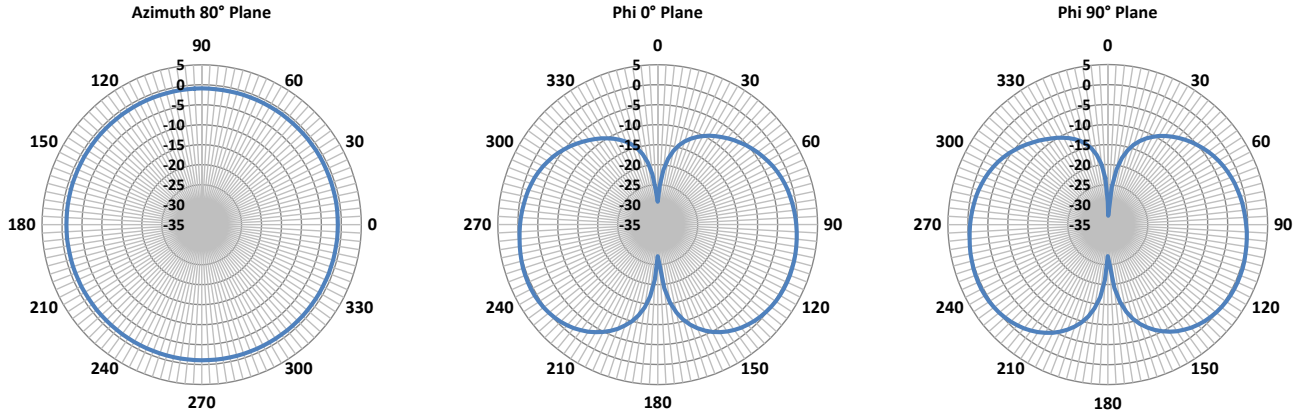
### Radiation Patterns at 698 MHz (All Models)



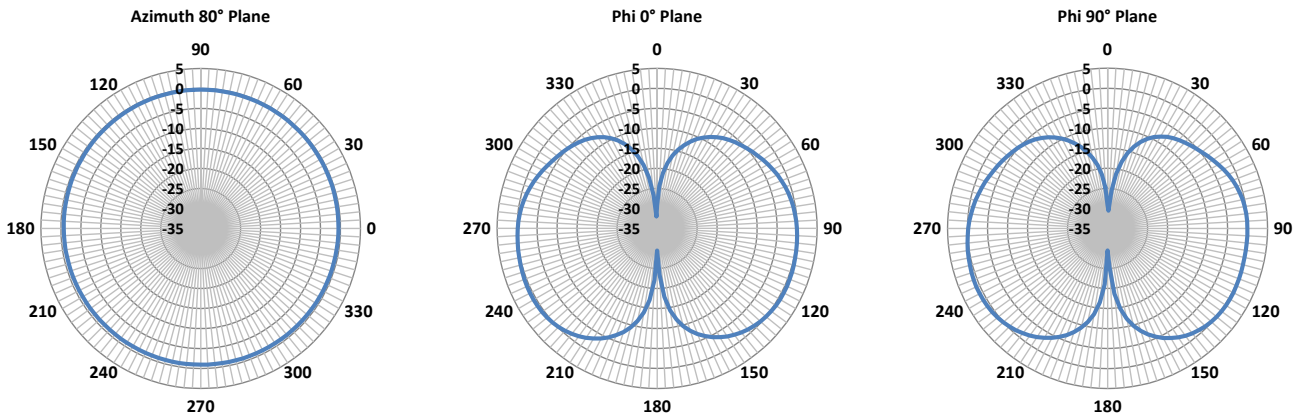
### Radiation Pattern at 746 MHz (All Models)



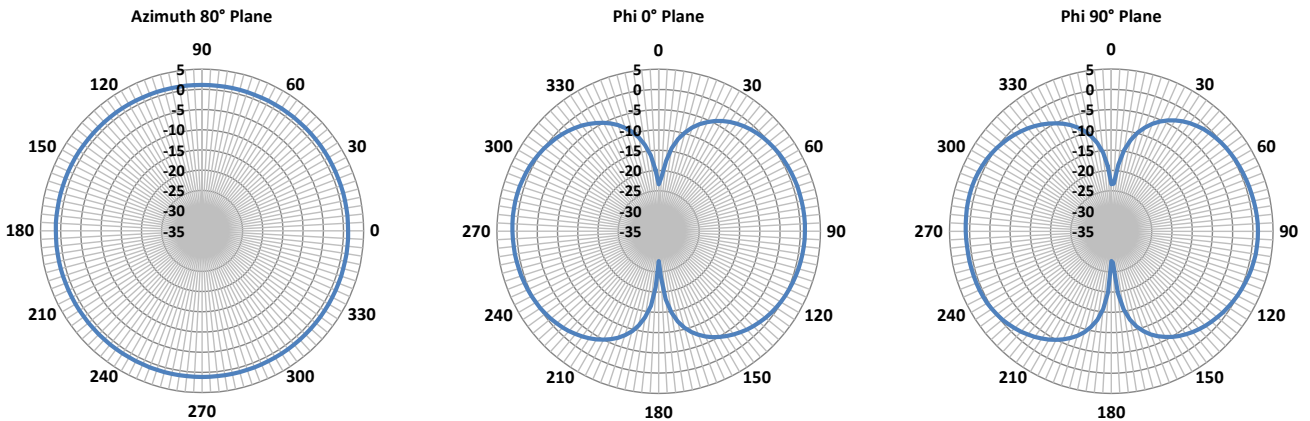
## Radiation Pattern at 824 MHz (All Models)



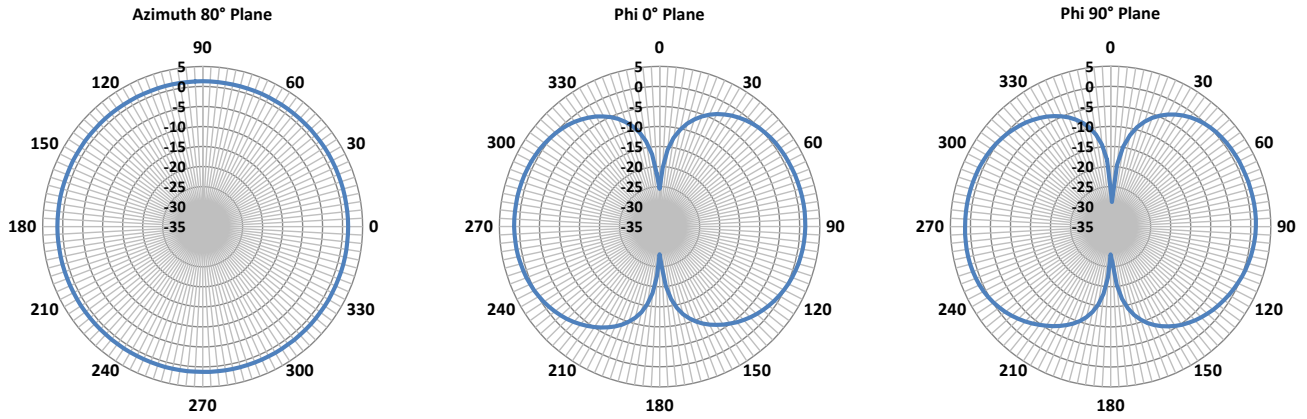
## Radiation Pattern at 960 MHz (All Models)



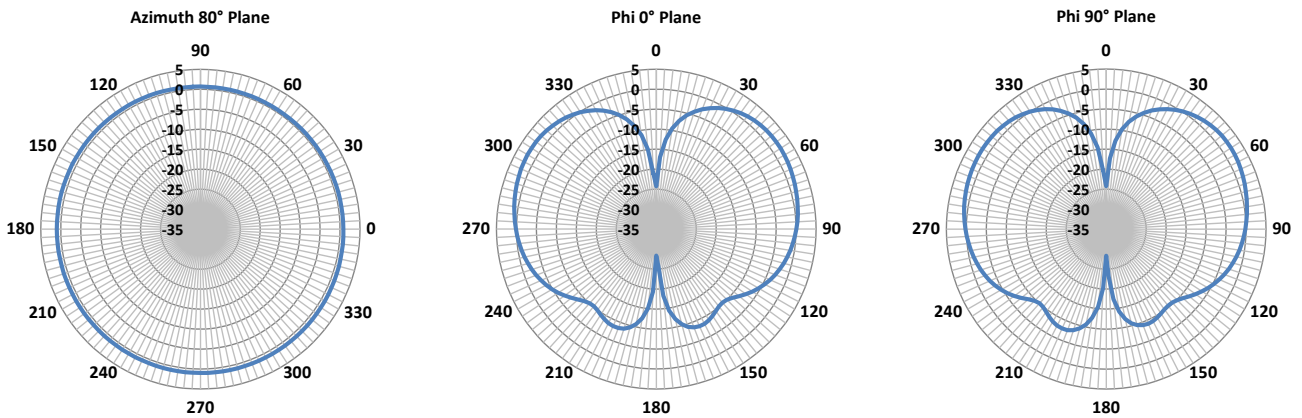
## Radiation Pattern at 1427 MHz (All Models)



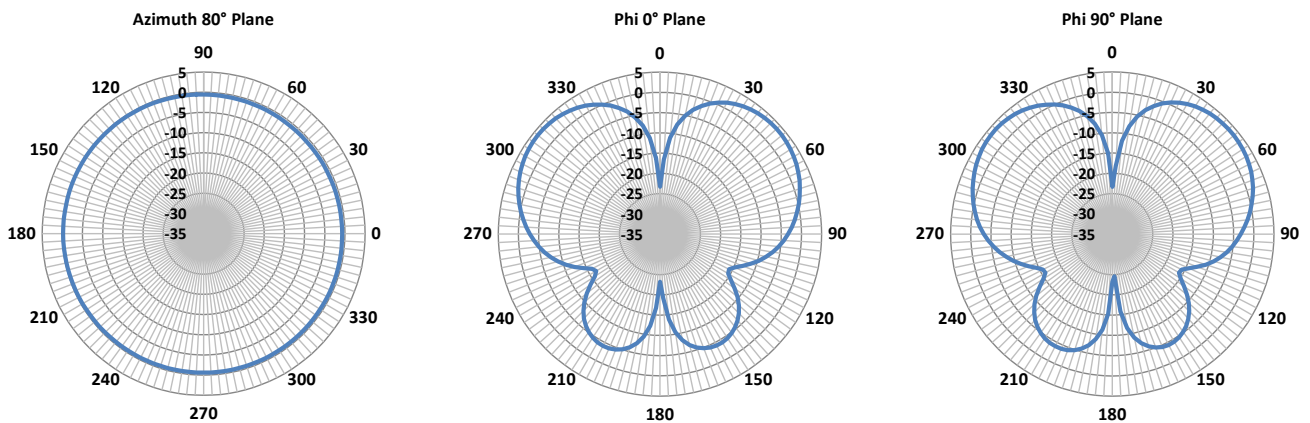
## Radiation Pattern at 1500 MHz (All Models)



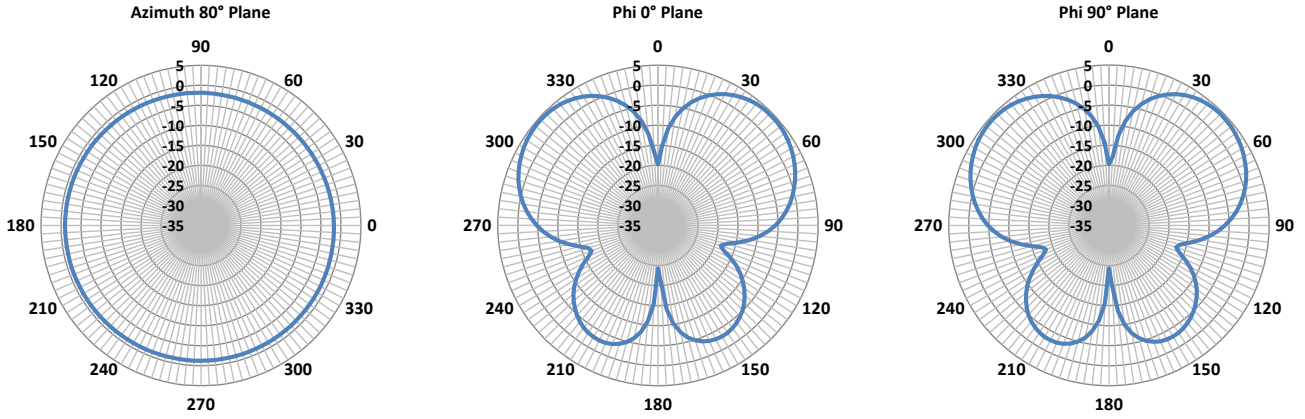
## Radiation Pattern at 1850 MHz (All Models)



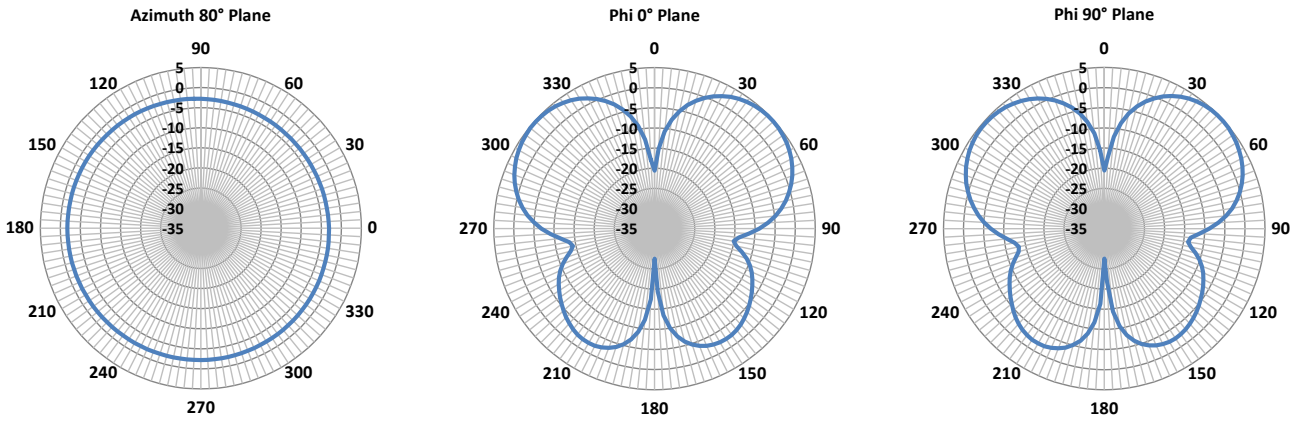
## Radiation Pattern at 2170 MHz (All Models)



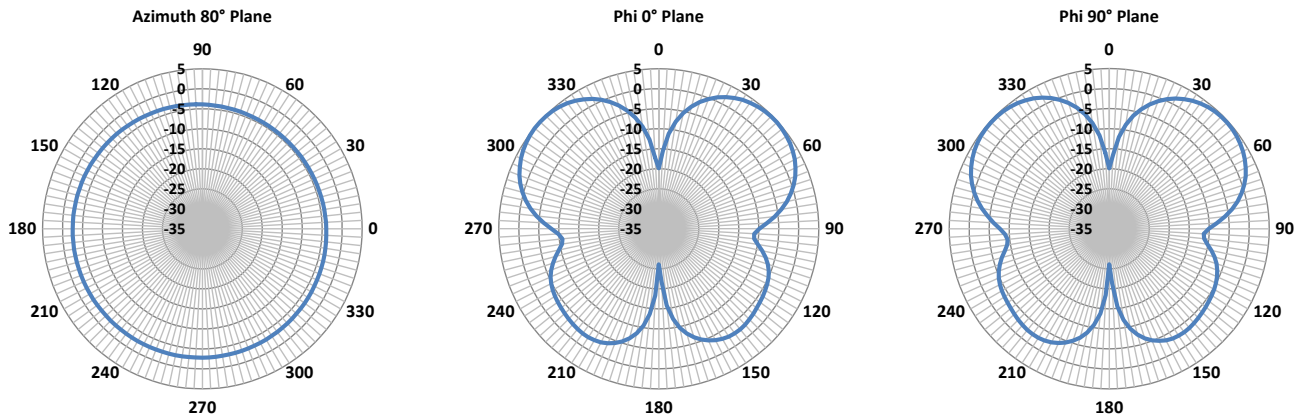
## Radiation Pattern at 2310 MHz (All Models)



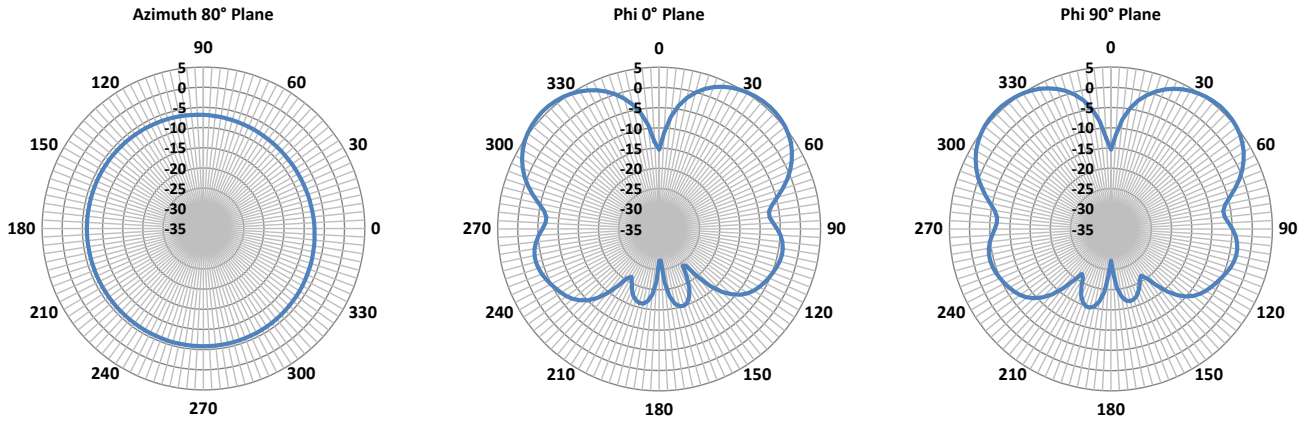
## Radiation Pattern at 2506.5 MHz (All Models)



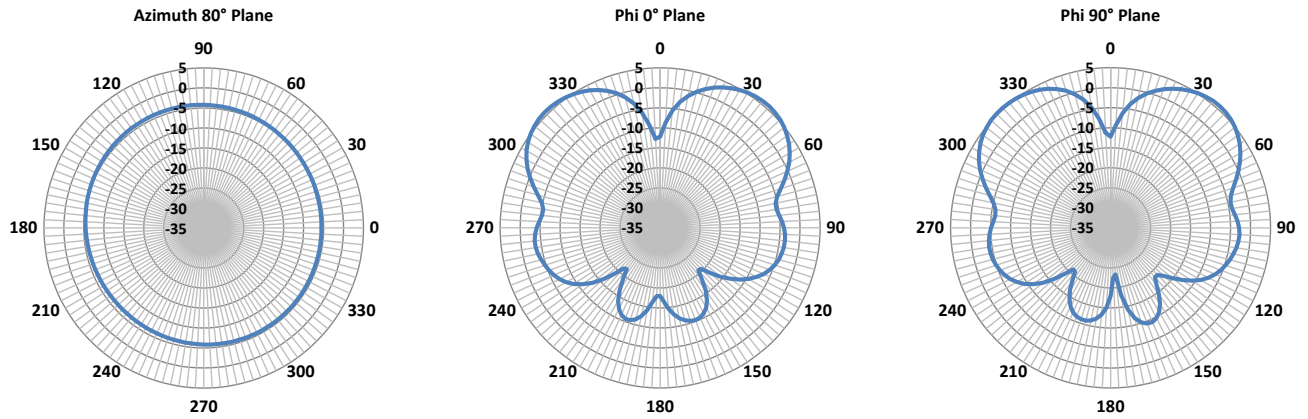
## Radiation Pattern at 2700 MHz (All Models)



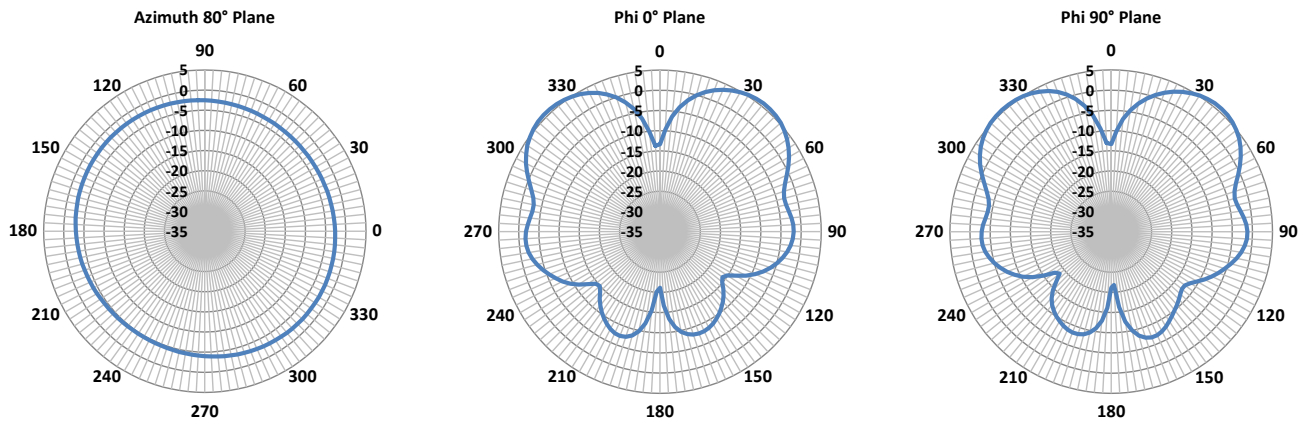
## Radiation Pattern at 3300 MHz (All Models)



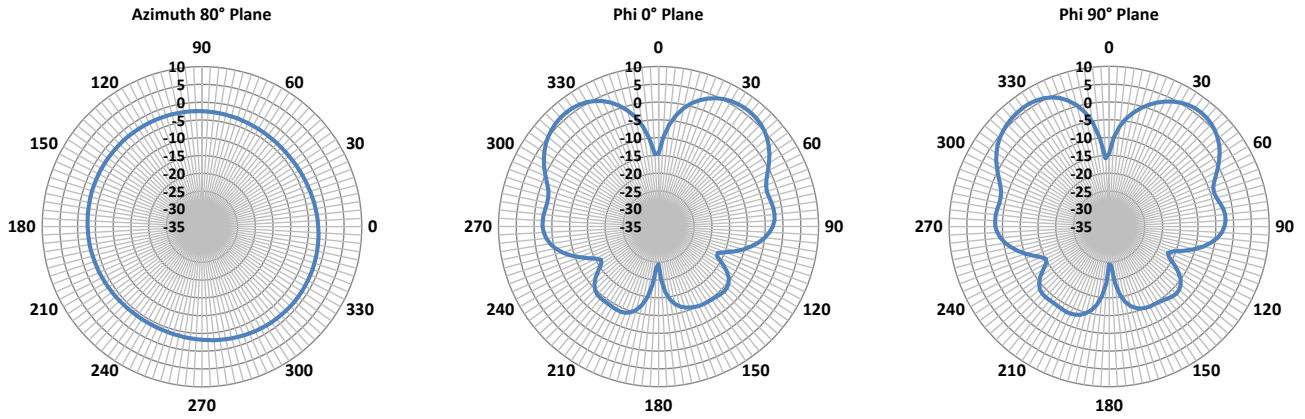
## Radiation Pattern at 3500 MHz (All Models)



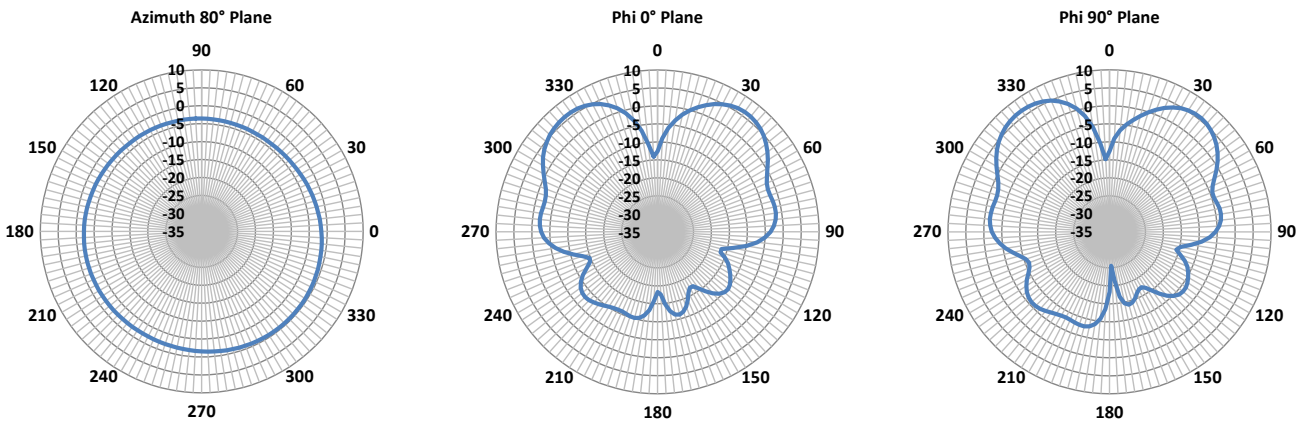
## Radiation Pattern at 3800 MHz (All Models)



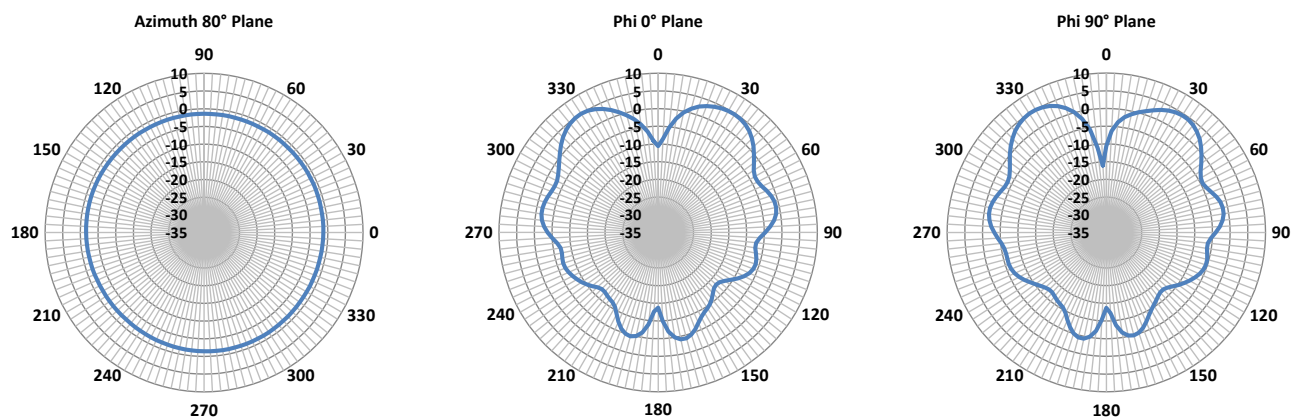
## Radiation Pattern at 4200 MHz (All Models)



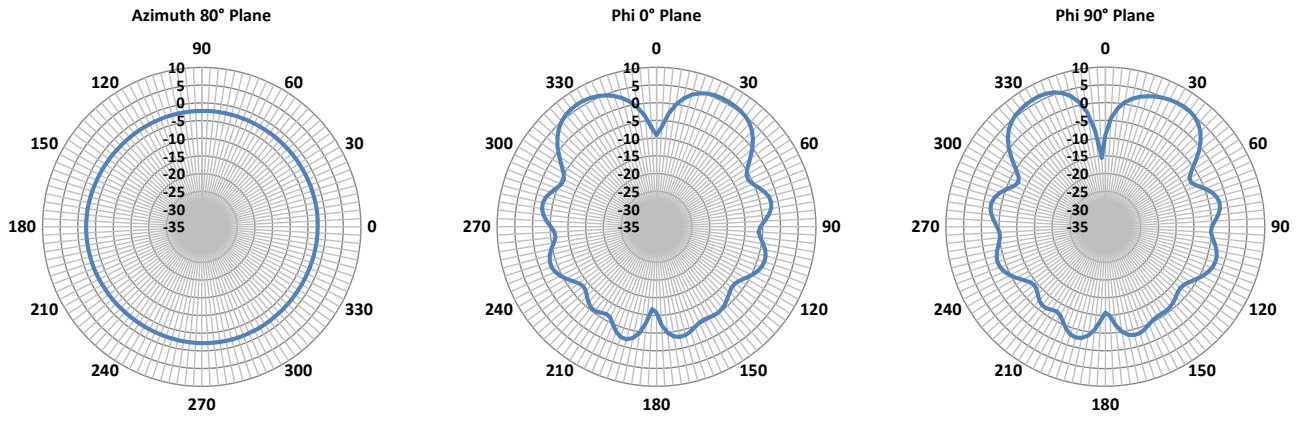
## Radiation Pattern at 4400 MHz (All Models)



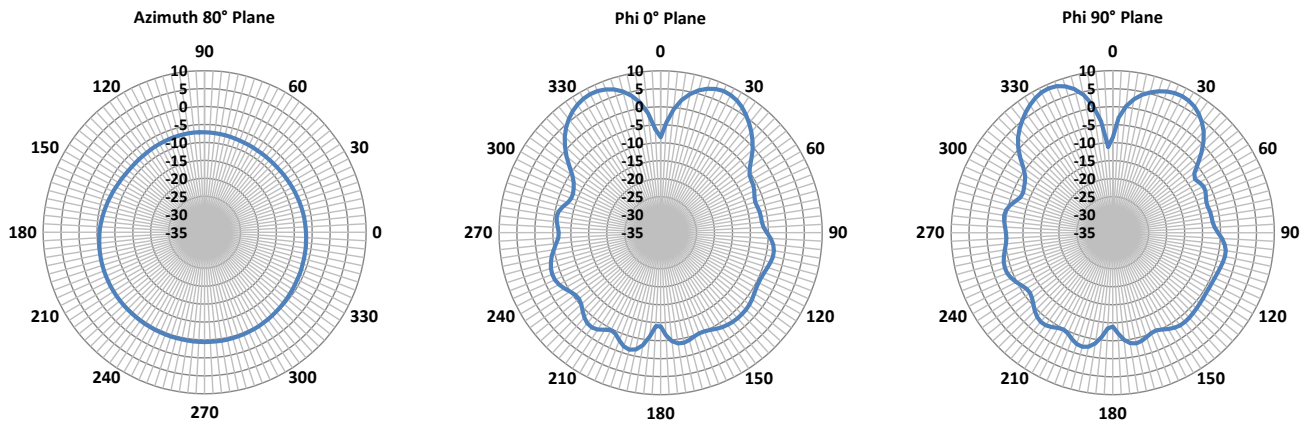
## Radiation Pattern at 5150 MHz (All Models)



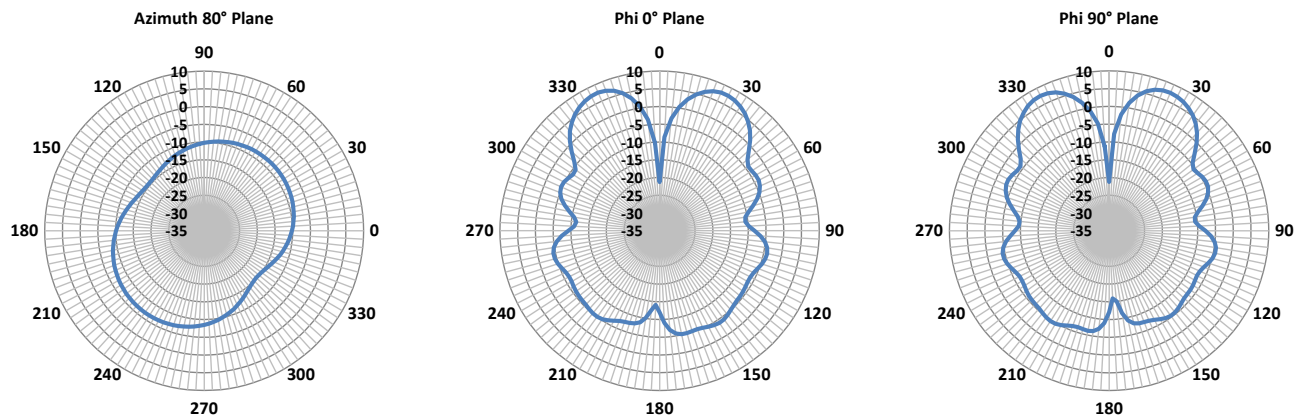
## Radiation Pattern at 5470 MHz (All Models)



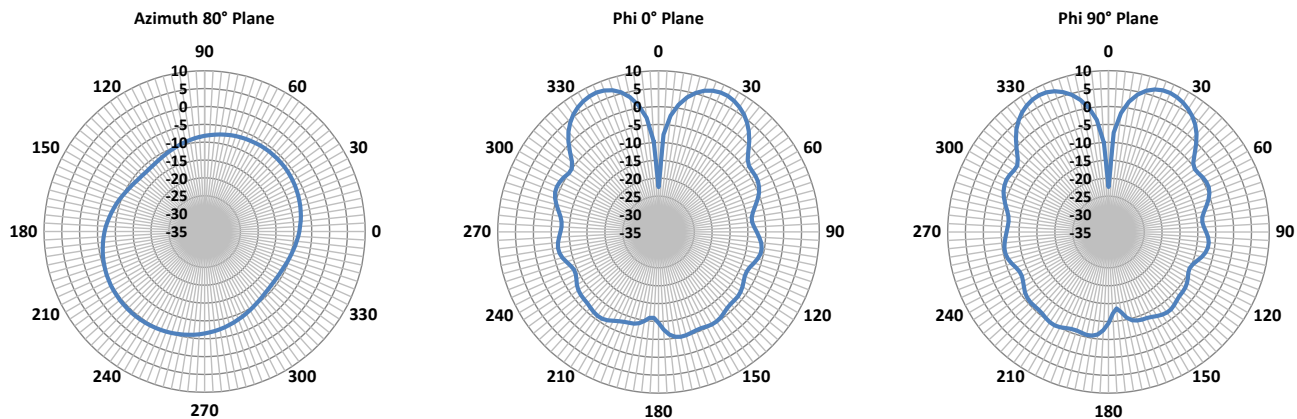
## Radiation Pattern at 5925 MHz (All Models)



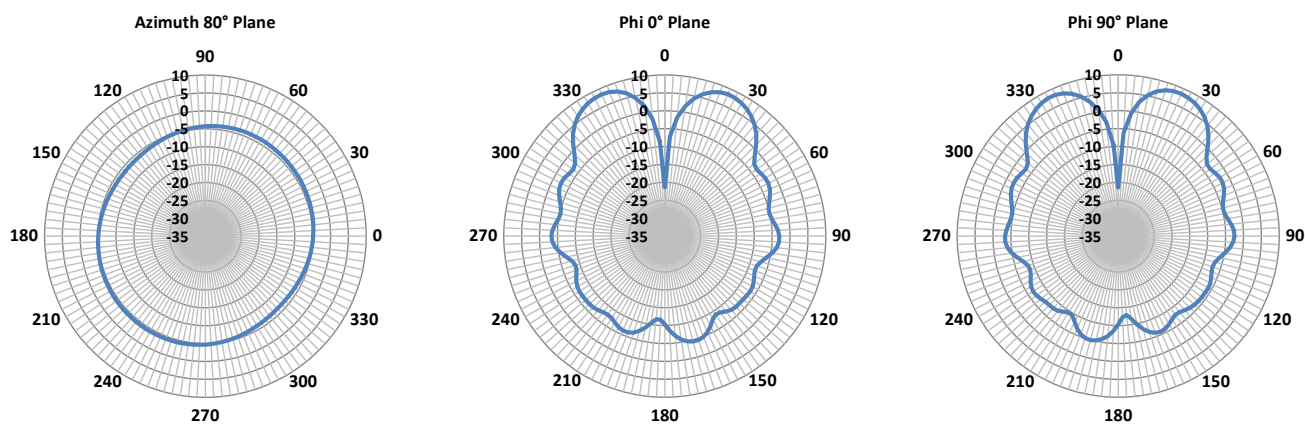
## Radiation Pattern at 6300 MHz (All Models)



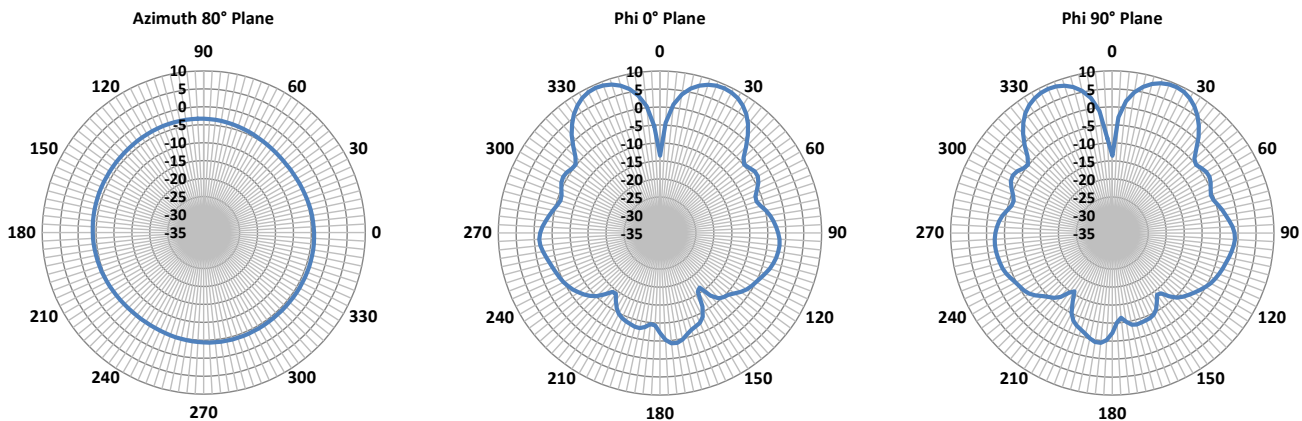
## Radiation Pattern at 6500 MHz (All Models)



## Radiation Pattern at 6800 MHz (All Models)

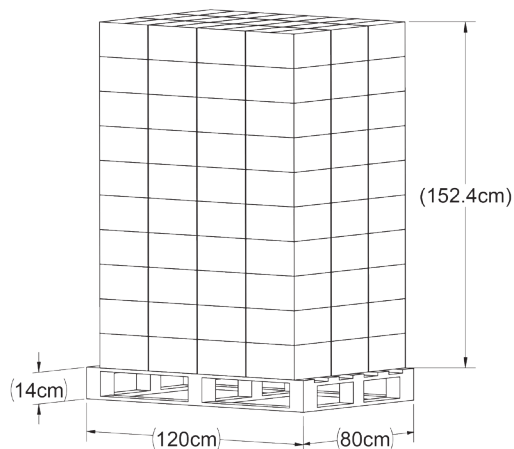


## Radiation Pattern at 7100 MHz (All Models)



## PACKING INFORMATION

### PACKAGING - INDIVIDUAL CARTON

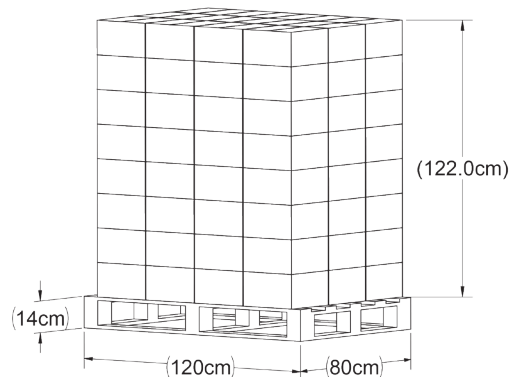


#### Ocean Shipping

Standard configuration information.

- Pallet 120cm X 80cm X 14cm, Weight 12kg
- Master carton @ 1 unit: Weight 8.23kg
- For ocean shipments 120 master carton with pallet: Weight 999.6kg (120cm x 80 cm x 152.4cm) 3000 total unit per pallet

### PACKAGING - BULK PACK

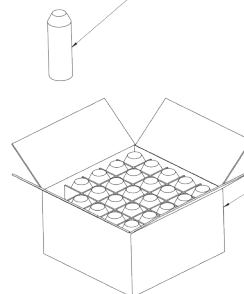


#### Air Shipping

Standard configuration information.

- Pallet 120cm X 80cm X 14cm, Weight 12kg
- Master carton @ 1 unit: Weight 8.23kg
- For Air shipments 96 master carton with pallet: Weight 802kg (120cm x 80 cm x 122.0cm) 2400 total unit per pallet

Antenna with bag pack



#### Master Carton

Internal Size (mm)  
:L260 X W260 X H150  
Total 25 unit Antennas pack

## TE TECHNICAL SUPPORT CENTER

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