



VLQ69273x21J

Vehicular 4-Port MIMO Antenna
698-960 MHz/1710-2700 MHz/2300-2700
MHz/4900-5900 MHz/GNSS

The Laird Connectivity vehicular four-port MIMO antenna covers the 698-960/1710-2700 MHz and 2300-2700/4900-5900 MHz frequency ranges with an added global navigational antenna. Configured with two 3G/4G ports, one dual band Wi-Fi port and a fourth port configured with a GNSS navigational antenna.

Connector options include, but not limited to, SMA male connectors for 3G/4G LTE and GNSS ports with an RPSMA male connector for the Wi-Fi port. The housing incorporates a low-profile, rugged design that meets IP67, EN61373 Shock & Vibration and EN50155 Temperature and Humidity standards. The antenna also features high impact, UV-resistant polycarbonate plastic radome available in black or white.

APPLICATIONS

- FirstNet/Public Safety
- Passenger Fleet
- Commercial Vehicle Fleet
- Rail Transit

ELECTRICAL SPECIFICATIONS

Number of Ports	2x- 3G/4G LTE		1x- Wi-Fi	
	698-960	1710-2700	2300-2700	4900-5900
Operating Frequency, (MHz)	698-960	1710-2700	2300-2700	4900-5900
Peak Gain - Average* (dBi)	2.0	3.6	4.8	4.4
Peak Gain - Max* (dBi)	3.3	4.6	5.5	5.3
Gain Horizon 30° - Max (dBi)*	N/A	N/A	N/A	4.1
VSWR- Average**	1.3	1.3	1.3	1.2
VSWR- Max**	2.0	2.0	2.0	2.0
Isolation** LTE1 to LTE2 (dB)	-13	-19	-23	-38
Isolation** LTE1 to Wi-Fi (dB)	-24	-18	-22	-38
Isolation** LTE2 to Wi-Fi (dB)	-24	-19	-24	-39
Nominal Impedance (Ohms)	50			
Max Power - Ambient 25°C/77°F (W)	50			
Polarization	Vertical Linear			
Azimuth Beamwidth	360°- Omnidirectional			

* Measured on 1 ft (30.48 cm) diameter ground plane

** Measured on 1 ft (30.48 cm) diameter ground plane and 17 ft (518 cm)

MECHANICAL SPECIFICATIONS

Dimensions - diameter x height - mm (in.)	132 x 75 (5.20 x 2.9)
Weight - kg (lbs)	0.95 (2.1)
Cable Type	LMR [®] -195 or equivalent
Mounting	P- Mount
Radome and Base Plate Material	PC, UL94 - V0 Rating, UV Stable

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature - °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature - °C (°F)	-40 to +85 (-40 to +185)
Shock and Vibration Tests	EN61373 Compliant
Temperature and Humidity Tests	EN50155 Compliant
Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

GNSS ANTENNA SPECIFICATIONS

Model Number	VHP69273x21J		
Number of Ports	1x- GNSS		
Frequency Band (MHz)	Beidou	GPS	GLONASS
Frequency of Operation (MHz)	1561.098 ± 2.046	1.575.42 ± 1.023	1602.0 ± 5.0
Amplifier Gain (dB)	28 dB ± 3		
Nominal Impedance (Ohms)	50 Ω		
Output VSWR	< 2:1		
DC Voltage	2.5 - 7 Vdc		
Current Consumption, mA	8.5 ± 3 (at 3.0V)		
Input Max Power, dBm	-10		
Out of Band Rejection, dBc	> 80 (698- 960 MHz)	> 80 (1428- 2700 MHz)	> 70 (4900- 5800 MHz)
Working/Storage Temperature	-40°C - +85°C (-40°F - +185°F)		
Connector	SMA-Male		
Cable - Exposed Length	RG174-518.2 cm (17 ft.)		

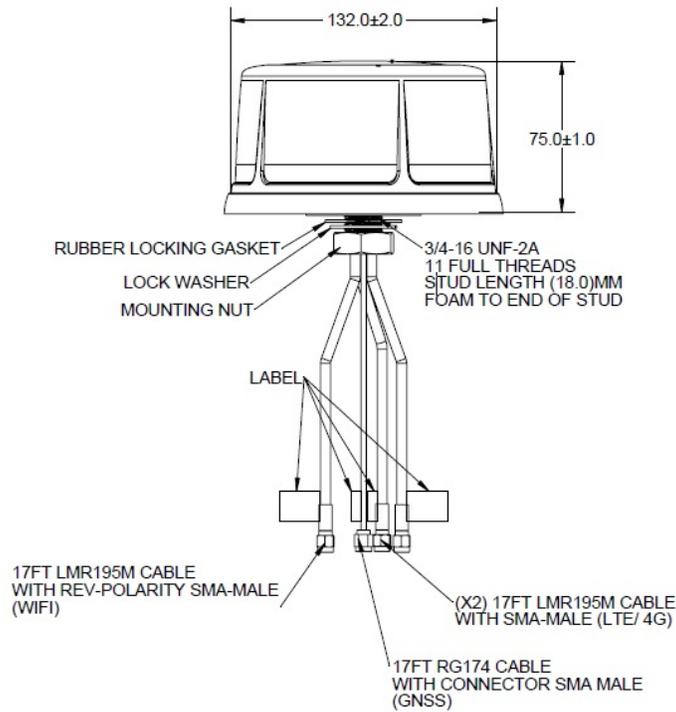
CONFIGURATION

PART NUMBER	CABLE LENGTH	CONNECTOR LTE PORTS	CONNECTOR WI-FI PORTS	COLOR	NAVIGATION
VLQ69273B21J-518A	5.18m (17ft)	SMA Male	RPSMA Male	Black	GNSS
VLQ69273W21J-518A	5.18m (17ft)	SMA Male	RPSMA Male	White	GNSS

PACKAGING INFORMATION

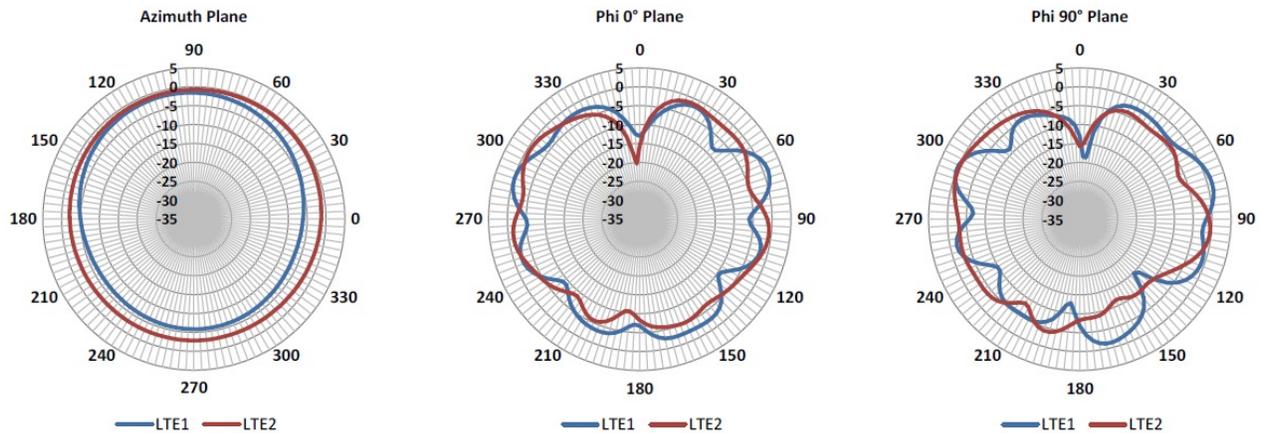
PACKAGE DIMENSIONS	CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	4	8	192	240
Height- mm (in.)	305 (12.0)	305 (12.0)	1363 (53.66)	1668 (65.67)
Length- mm (in.)	525 (20.7)	525 (20.7)	1200 (47.24)	1200 (47.24)
Width- mm (in.)	132 (5.22)	265 (10.4)	800 (31.5)	800 (31.5)
Shipping Weight- kg (lb.)	4.3 (9.4)	8.5 (19)	215 (474)	266 (586)

MECHANICAL DRAWING

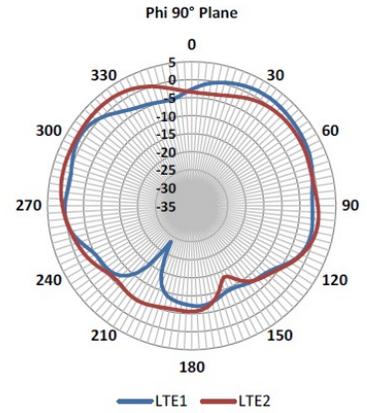
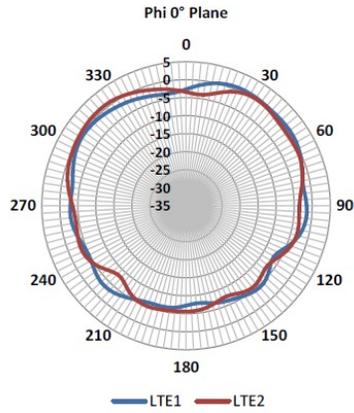
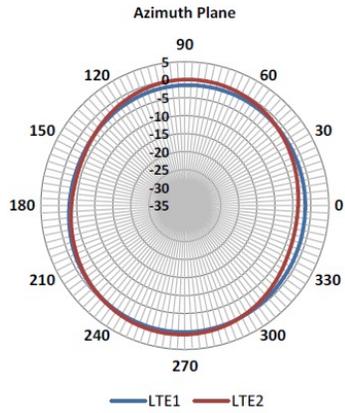


RADIATION PATTERNS- LTE/CELL PORTS

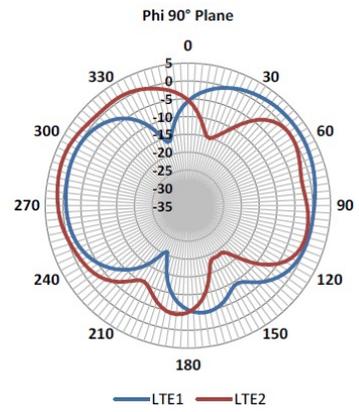
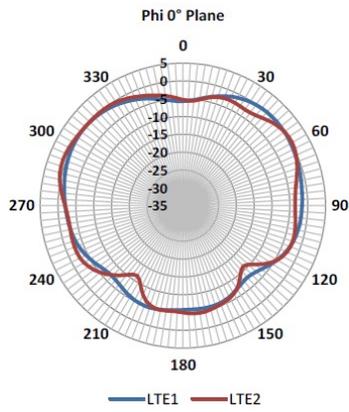
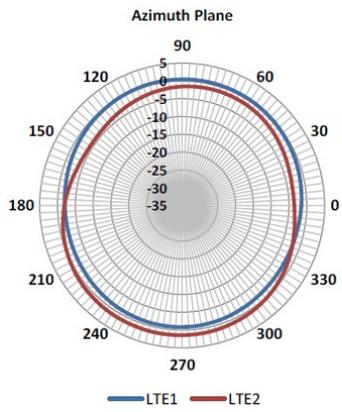
698 MHz



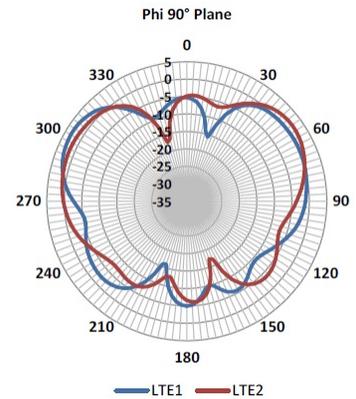
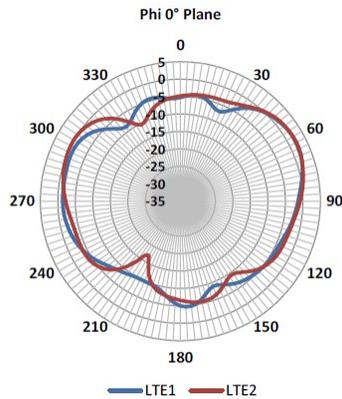
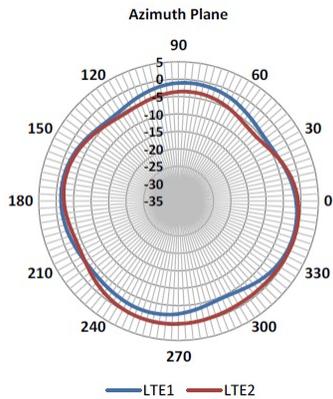
850 MHz



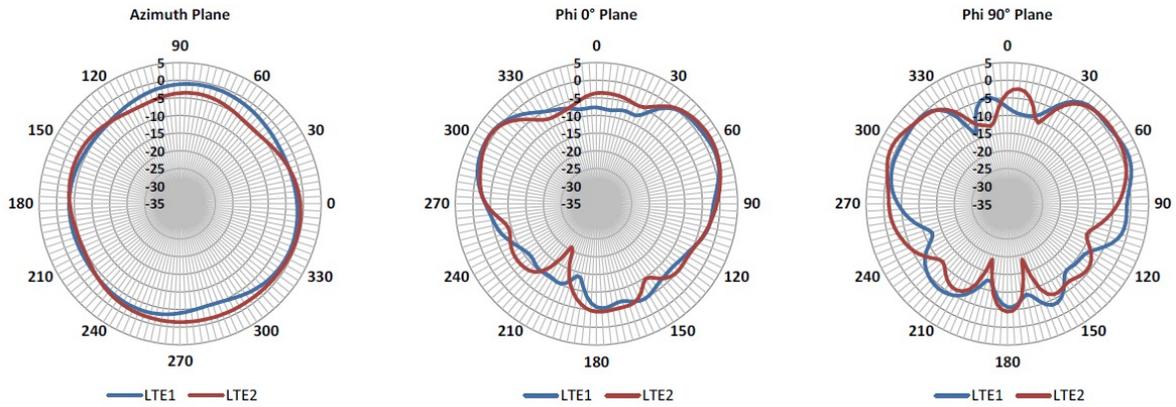
960 MHz



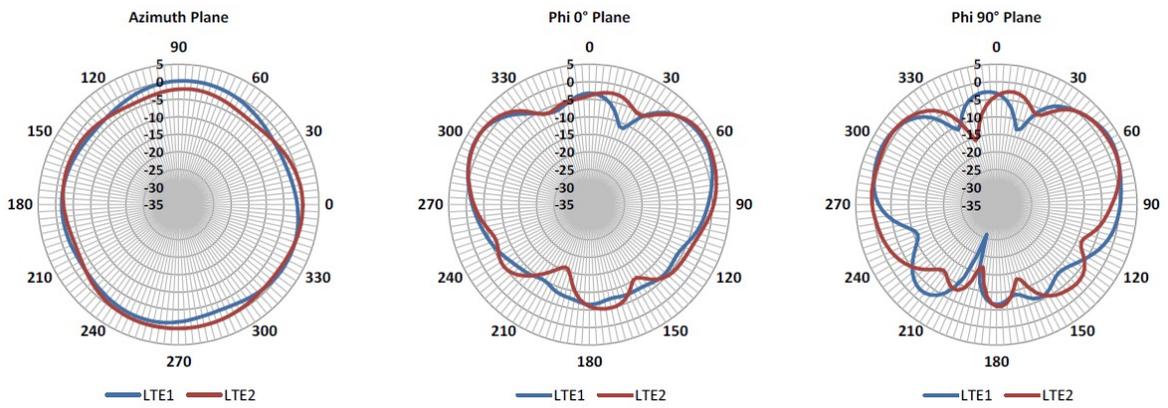
1710 MHz



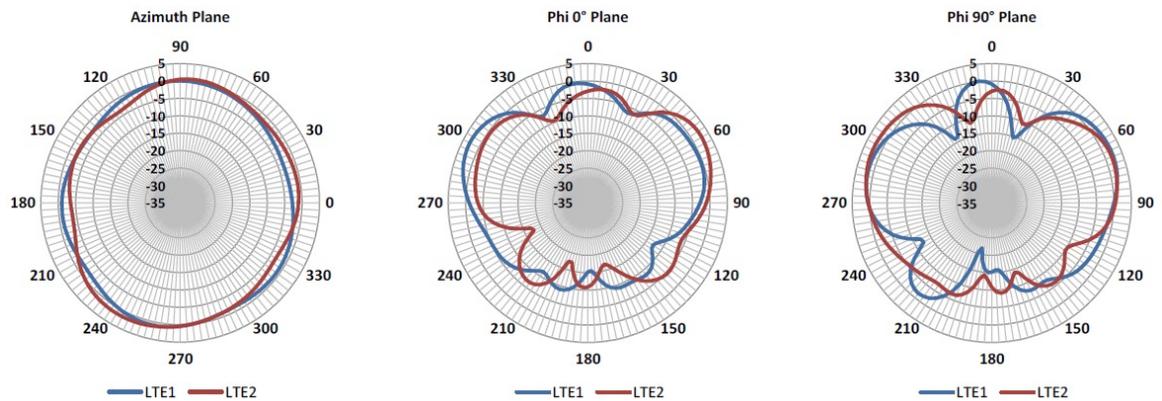
1880 MHz



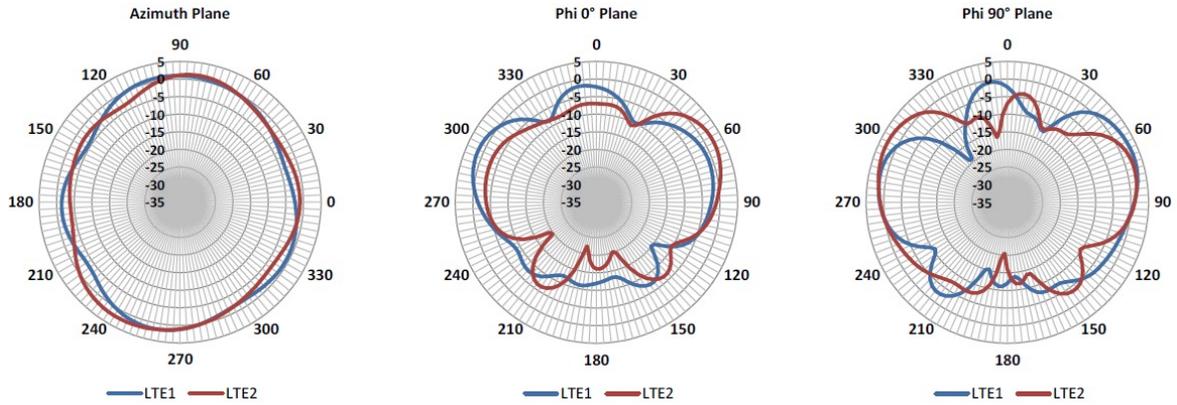
1930 MHz



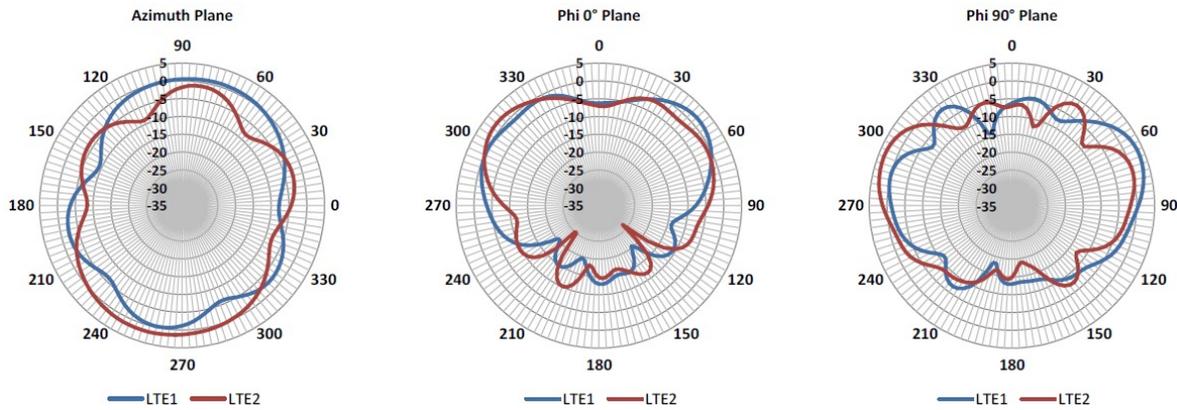
2170 MHz



2310 MHz

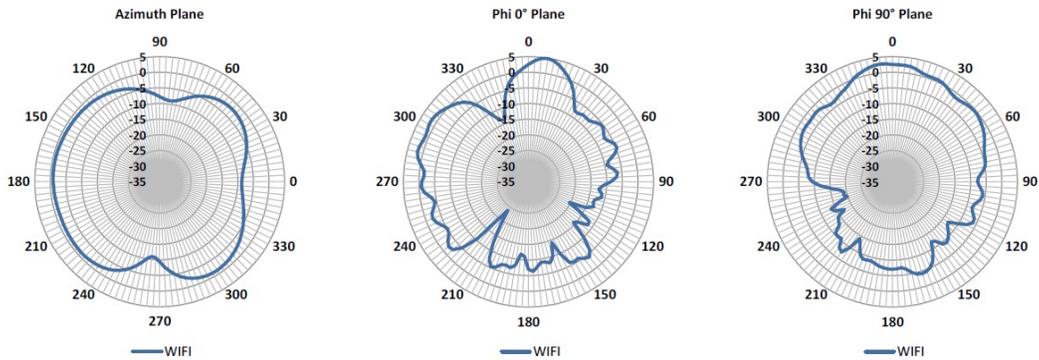


2700 MHz

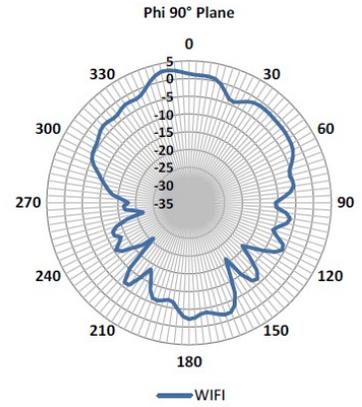
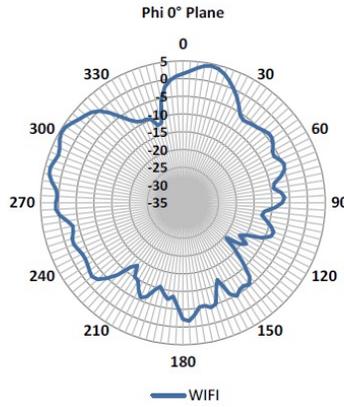
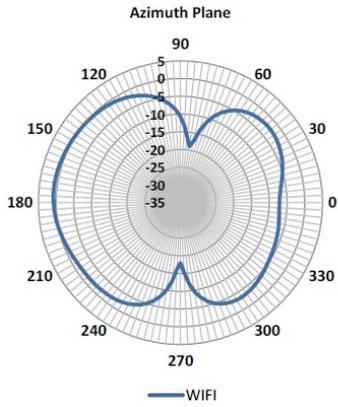


RADIATION PATTERNS- WIFI PORTS

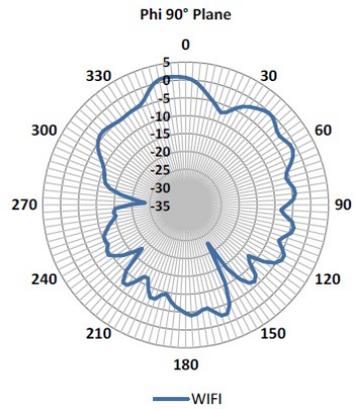
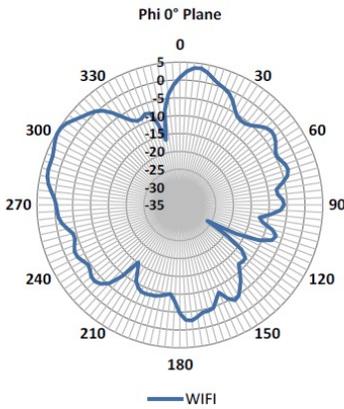
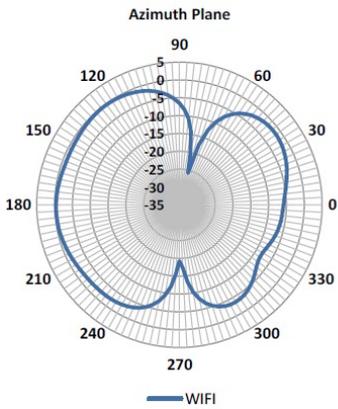
2400 MHz



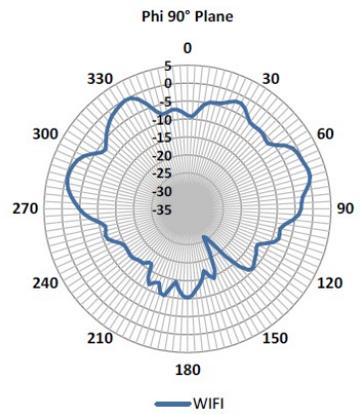
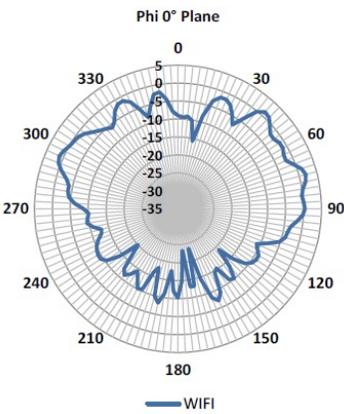
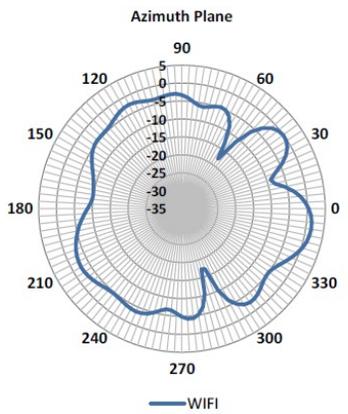
2460 MHz



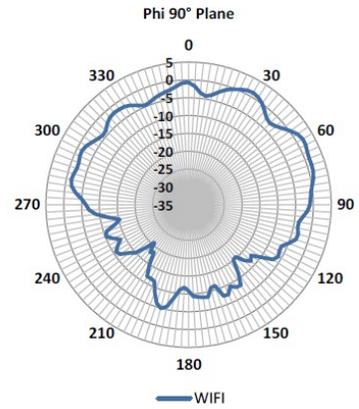
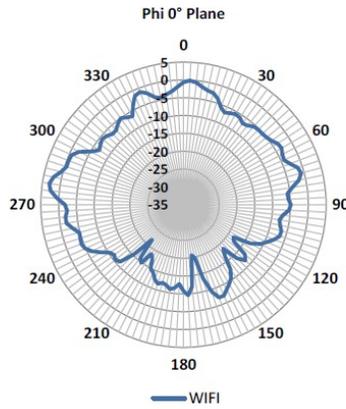
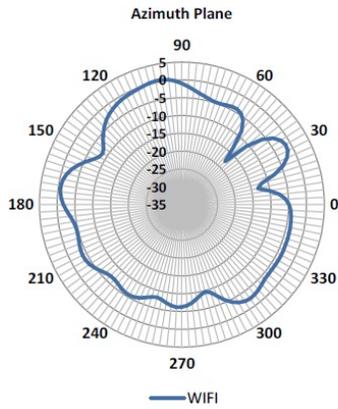
2500 MHz



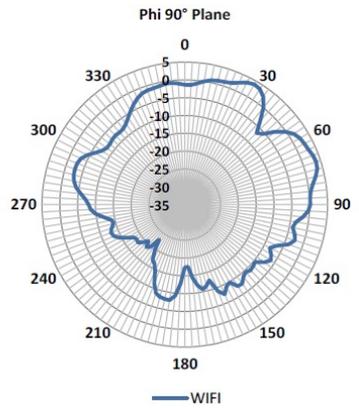
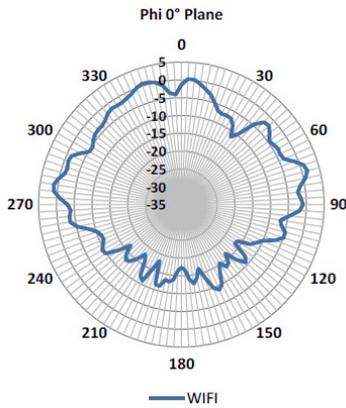
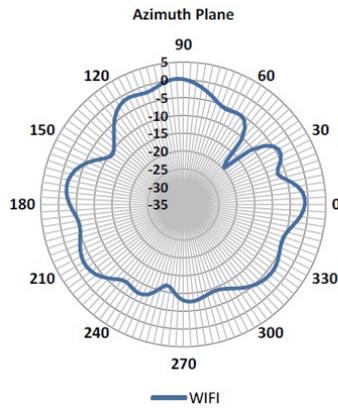
4900 MHz



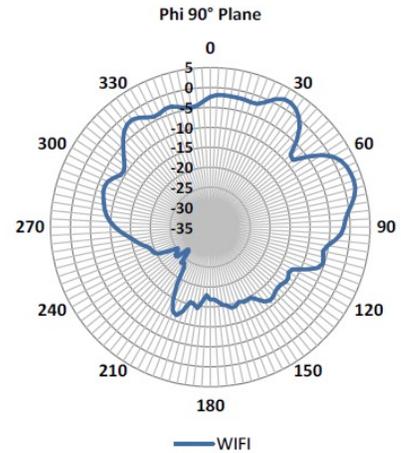
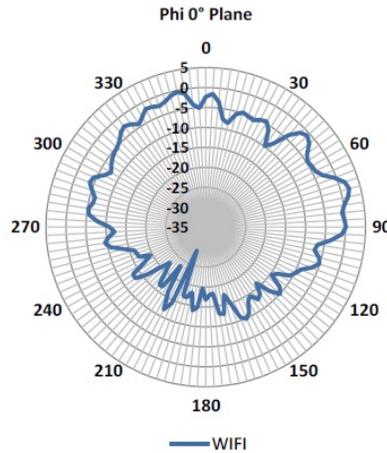
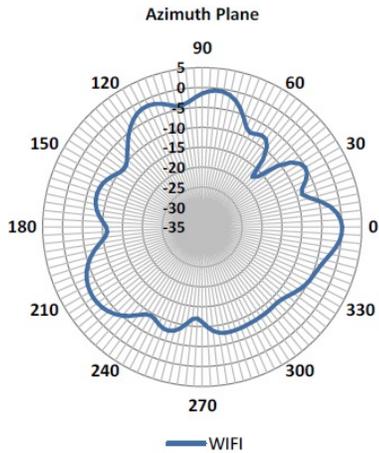
5470 MHz



5725MHz



5925 MHz



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