



The Barracuda UHF VFQ69383x2NJU multiport/multiband antenna provides an excellent solution for Public Safety, Transportation and Aftermarket Fleet applications. Configured for UHF band operation and two-port MIMO operation over the 3G/4G/5G/ISM/CBRS bands. An additional fourth port provides an active antenna for enabling GNSS global navigation services.

## FEATURES AND BENEFITS

- One single-hole mount/fixing- reduces vehicle damage and the cost of installation
- Attractive IP67 low profile aerodynamic housing
- Multiband/MIMO operation with GNSS navigation

## APPLICATIONS

- FirstNet/Public Safety
- Transportation
- Aftermarket fleet
- 5G ready
- Rugged LTE Gateways
- Others

## ELECTRICAL SPECIFICATIONS

Antenna Model	VFQ69383x2NJU									
Number of Ports	4 (2x – LTE, 1x – UHF, 1x – GNSS)									
Port Configuration	1x- UHF	2x- 3G/4G/ISM/CBRS (LTE/CELL)								
Operating Frequency (MHz)	380-520	698-806	824-894	880-960	1690-1880	1850-1990	1910-2180	2300-2500	2500-2700	3300-3800
Peak Gain* – Avg (dBi)	0.8	0.5	-0.6	0.4	3.3	3.3	2.6	2.7	3.9	5.6
Peak Gain* – Max (dBi)	2.3	2.4	1.3	2.8	3.9	3.9	3.9	3.8	4.8	7.2
VSWR (**), Avg	1.7	1.8	1.9	1.9	1.6	1.4	1.5	1.6	1.4	1.3
VSWR (**), Max	2.5	2.5	2.4	2.4	1.9	2.0	2.2	2.1	2.0	2.0
Isolation (**) LTE1 to LTE2 (dB)	-23	-12	-14	-14	-16	-17	-17	-21	-21	-25
Isolation (**) LTE1 to UHF (dB)	-27	-21	-29	-29	-21	-26	-27	-27	-29	-31
Isolation (**) LTE1 to GNSS (dB)	-15	-13	-14	-15	-15	-21	-21	-18	-18	-24
Isolation (**) LTE2 to UHF (dB)	-42	-41	-42	-42	-39	-39	-41	-42	-37	-35
Isolation (**) LTE2 to GNSS (dB)	-46	-45	-43	-44	-40	-42	-43	-41	-42	-35
Isolation (**) UHF to GNSS (dB)	-41	-44	-43	-45	-43	-42	-42	-44	-42	-44
Azimuth Plane 3 dB Beamwidth	360°, Omnidirectional									
Nominal Impedance (Ohms)	50									
Polarization	Linear, Vertical									
Max Power - Ambient 25°C (W)	60 (UHF); 30 (LTE/CELL)									

**Notes:** (\*) – This parameter is based on a 30cm (1ft) cable length and 30cm (1ft) ground plane.

(\*\*) – This parameter is based on a 518cm (17ft) cable length and 30cm (1ft) ground plane.

Antenna specifications are subject to change according to the ground plane size.

## MECHANICAL SPECIFICATIONS

Dimensions – L x W x H – mm (inches)	179 x 63 x 48 (7.04 x 2.48 x 1.69)
Weight – kg (lbs.)	0.94 (2.1)
Mounting	P-Mount
Cable Type	LMR 100- pigtails, LMR 195- jumper cables
Color	Black or White
Radome Material	PC, UL94-V0
Baseplate Material	Aluminum

## ENVIRONMENTAL SPECIFICATIONS

Operating Environment	Outdoor Vehicle
Operating Temperature – °C (°F)	-30 to +70°C (-22 to +158°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

## CONFIGURATION

PART NUMBER	CABLE LENGTH		CONNECTORS			COLOR
	PIGTAIL	JUMPER	UHF	LTE/CELL	GNSS	
VFQ69383B2NJU-518S	0.3 m (1 ft)	4.9 m (16 ft)	SMA- male	SMA- male	SMA- male	Black
VFQ69383W2NJU-518S	0.3 m (1 ft)	4.9 m (16 ft)	SMA- male	SMA- male	SMA- male	White

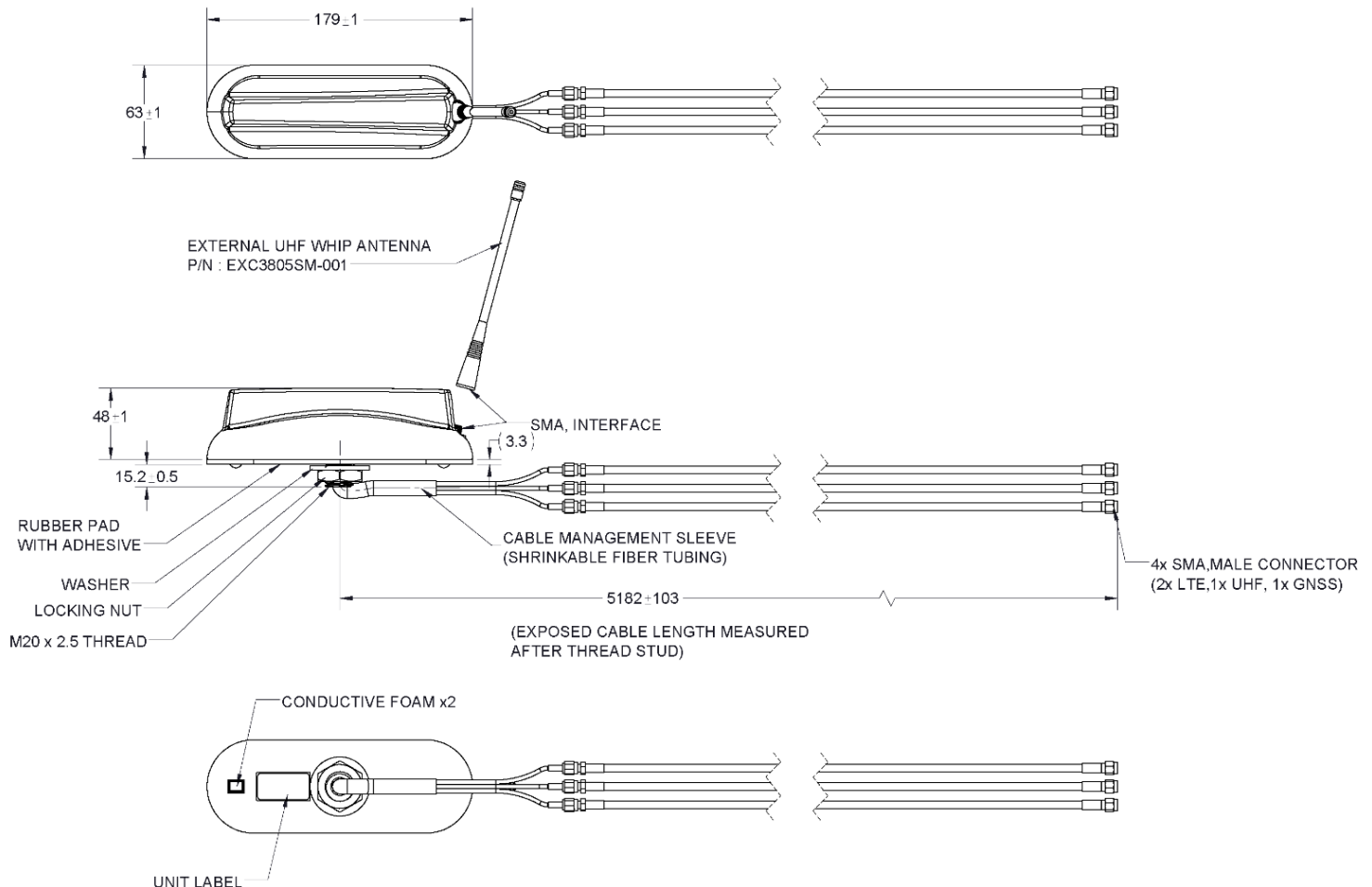
### GNSS ANTENNA SPECIFICATIONS

Frequency of Operation (MHz)	1559 - 1606		
Band	BEIDOU	GPS	GLONASS
Frequency Band (MHz)	1561.098 ±2.046	1575.42 ±1.023	1602 ±5
Antenna Gain (dBi)	3.9	4.9	2.5
LNA Gain Typ. @ room temp. (dBi)	28±3		
Noise Figure @ room temp., Max (dB)	≤ 2.5 @ 1575 MHz		
Max VSWR @ room temp.	≤ 2.0		
Polarization	RHCP		
Nominal Impedance	50 Ω		
Operating Supply Voltage (Vdc)	2.5 - 7.0		
Current Consumption, Max @ room temp mA)	8.5 ± 3 @ 3.0V		
LNA Gain Typ. @ room temp. (dBi)	28±3		
Out-of-band Signal Rejection Min @ room temp (dBc)	80 (@698-960MHz)	80 (@1428-2700 MHz)	70 (@4900-5800 MHz)
Input Max Power (dBm)	-10		
Cable Type	RG174		

### PACKAGING INFORMATION

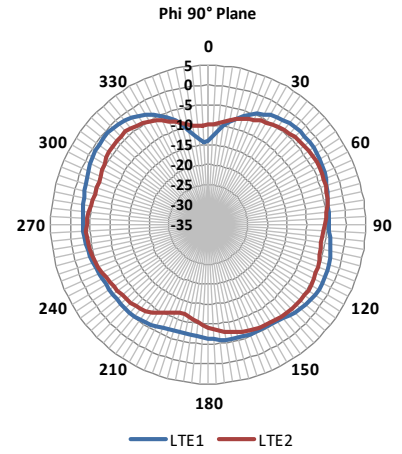
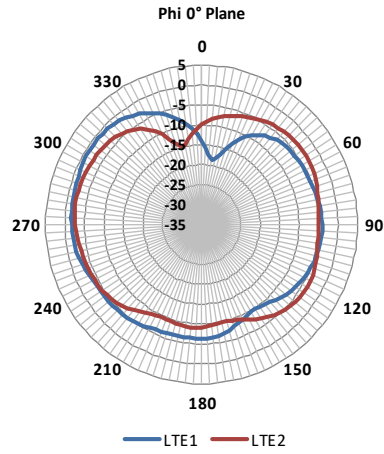
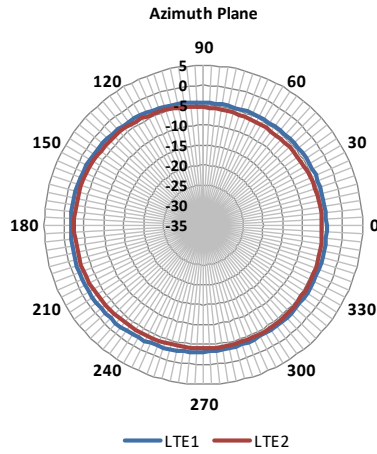
PACKAGED DIMENSIONS	CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	4	140	196
Height – mm (in.)	130 (5.12)	235 (9.25)	1335 (52.56)	1813 (71.38)
Length – mm (in.)	222 (8.74)	543 (21.38)	1200 (47.24)	1200 (47.24)
Width – mm (in.)	222 (8.74)	232 (9.13)	800 (31.5)	800 (31.5)
Shipping Weight – kg (lb.)	1.17 (2.58)	5.19 (11.4)	195 (430)	268 (591)

### MECHANICAL DRAWINGS

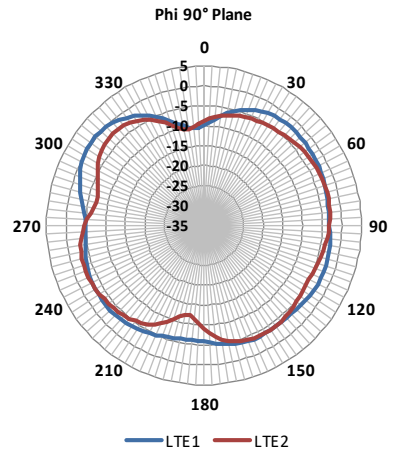
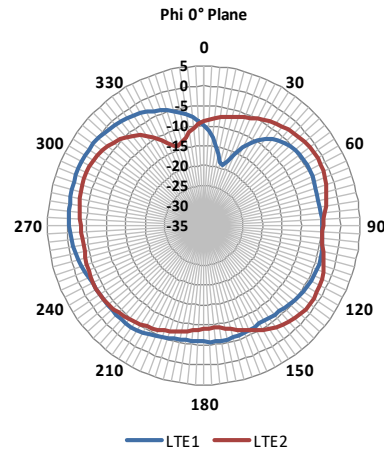
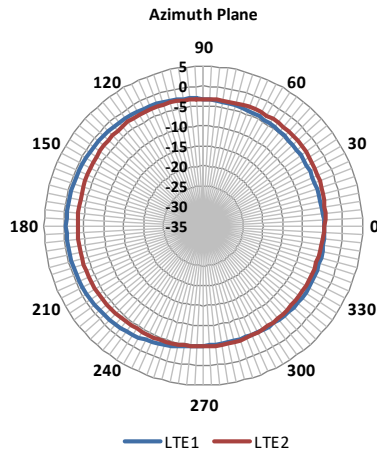


## RADIATION PATTERNS - LTE ANTENNAS

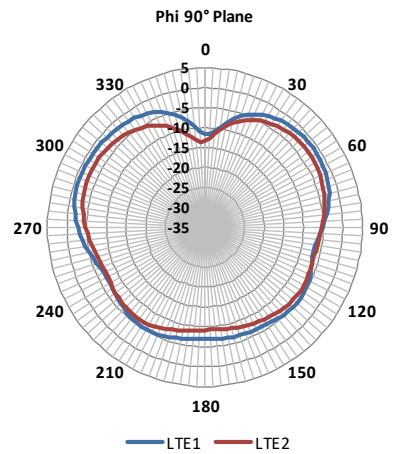
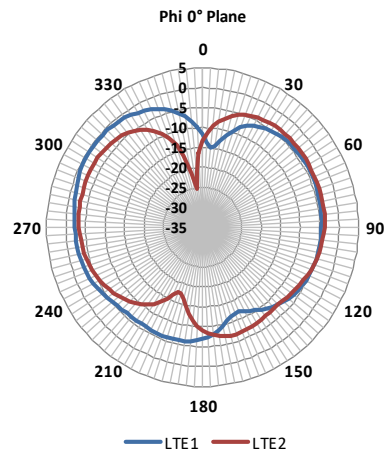
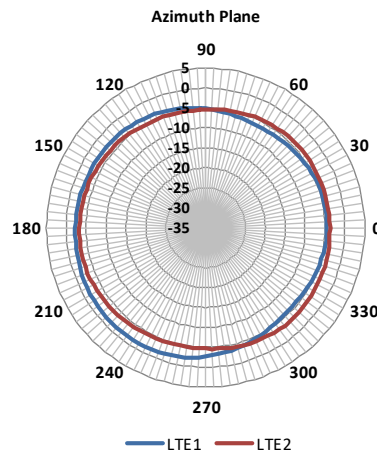
### 698 MHz



### 725 MHz

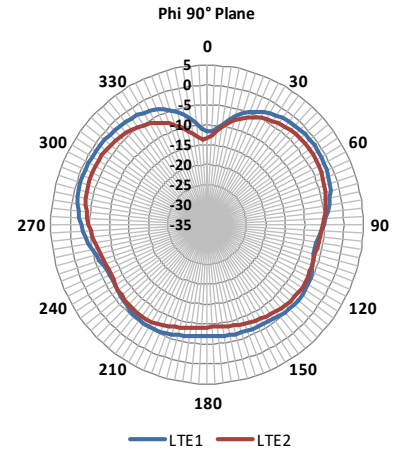
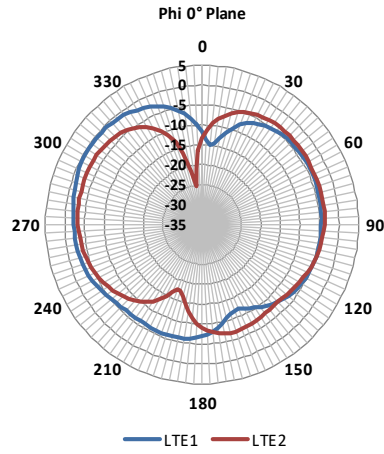
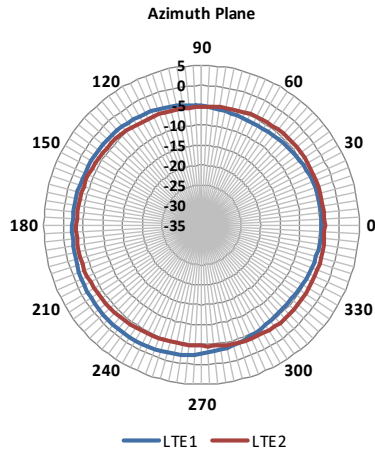


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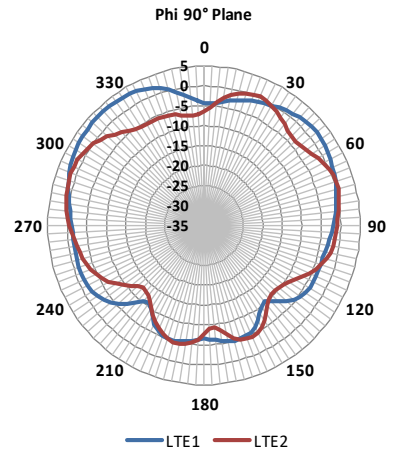
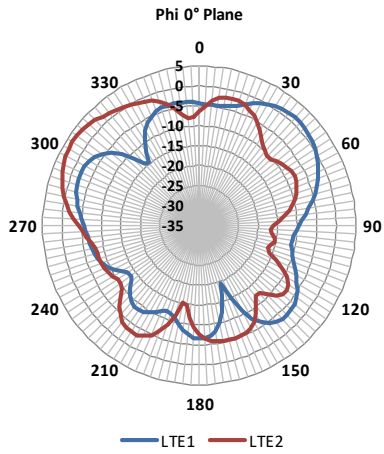
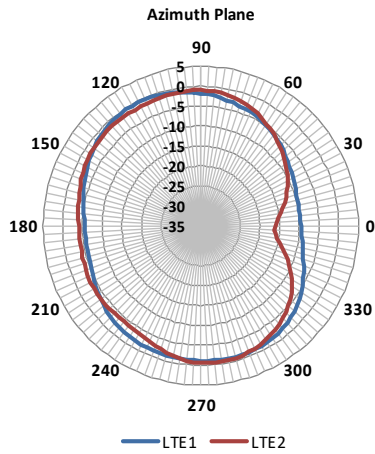


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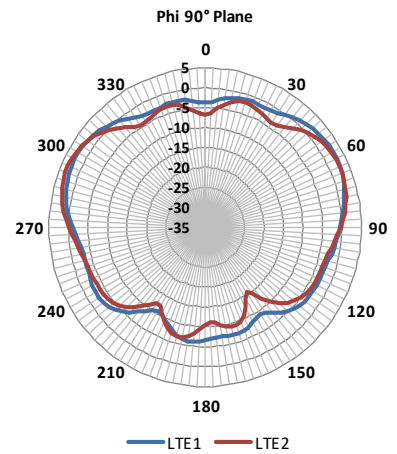
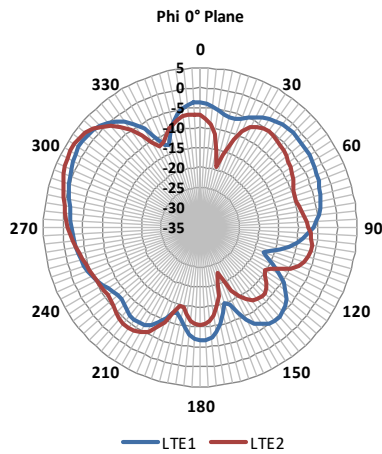
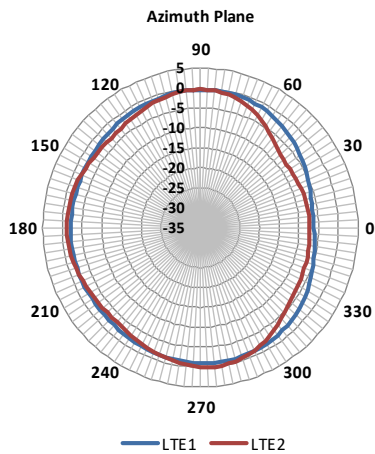
### 960 MHz



### 1690 MHz



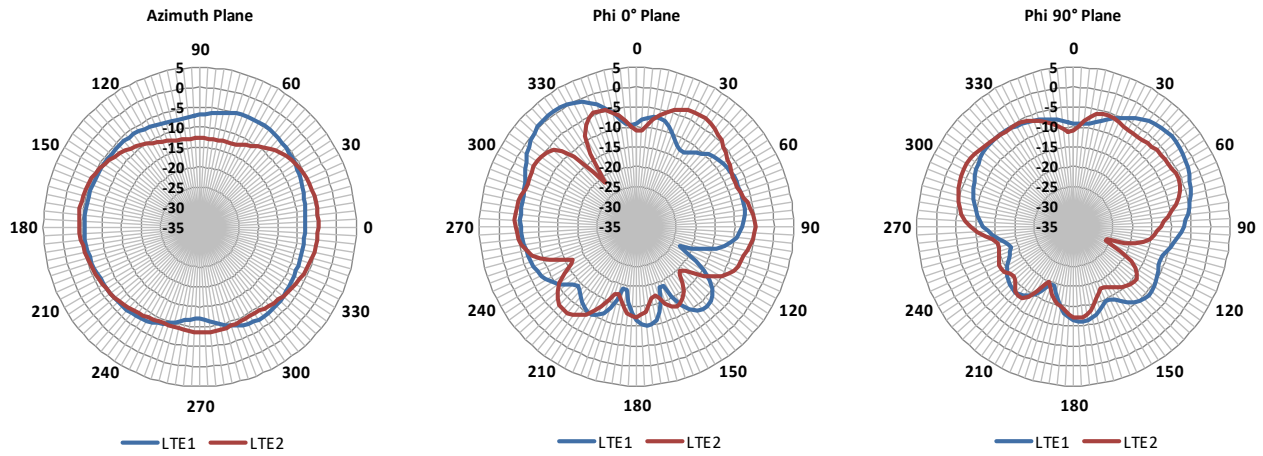
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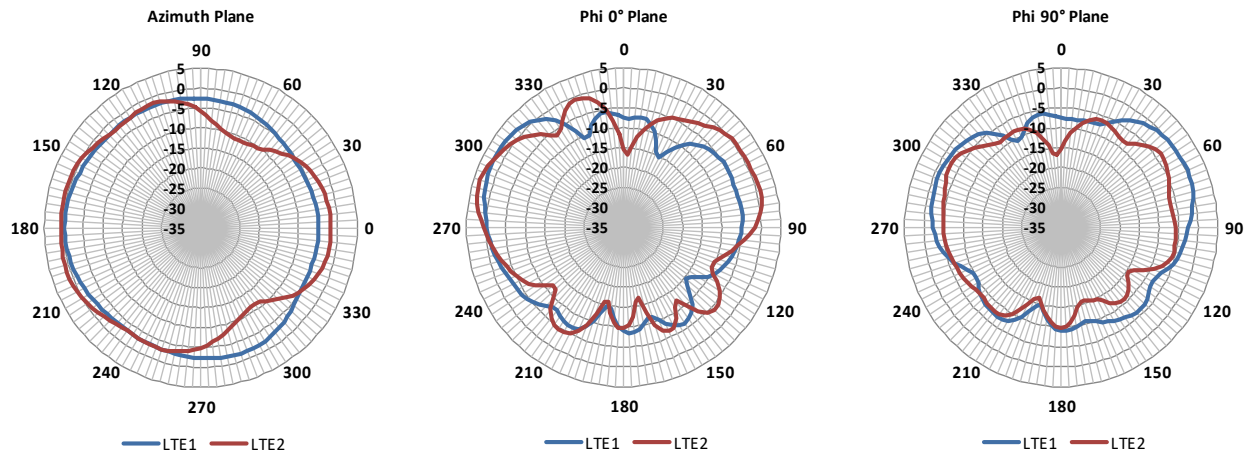


## RADIATION PATTERNS - LTE ANTENNAS

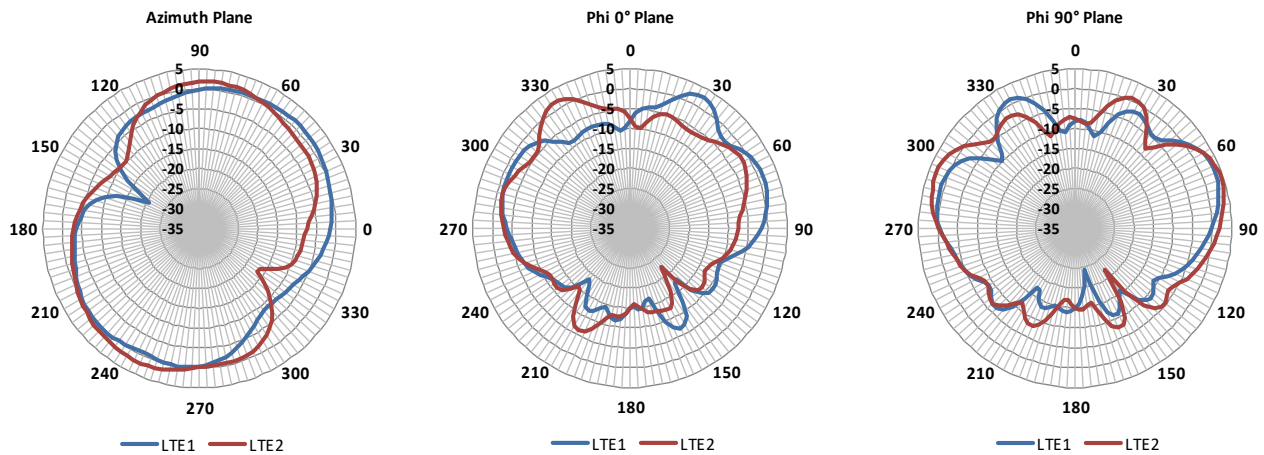
### 2110 MHz



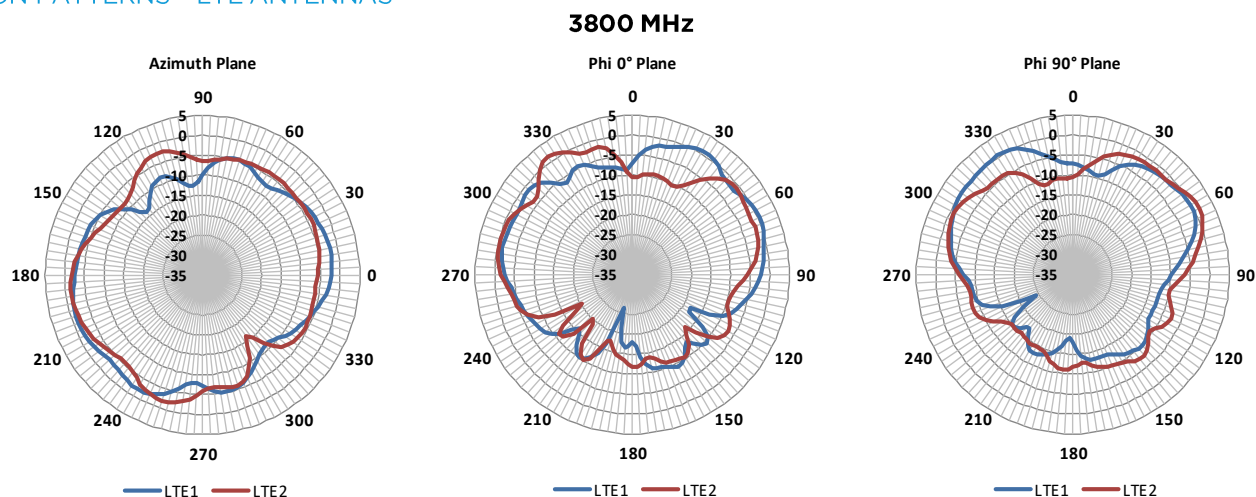
### 2400 MHz



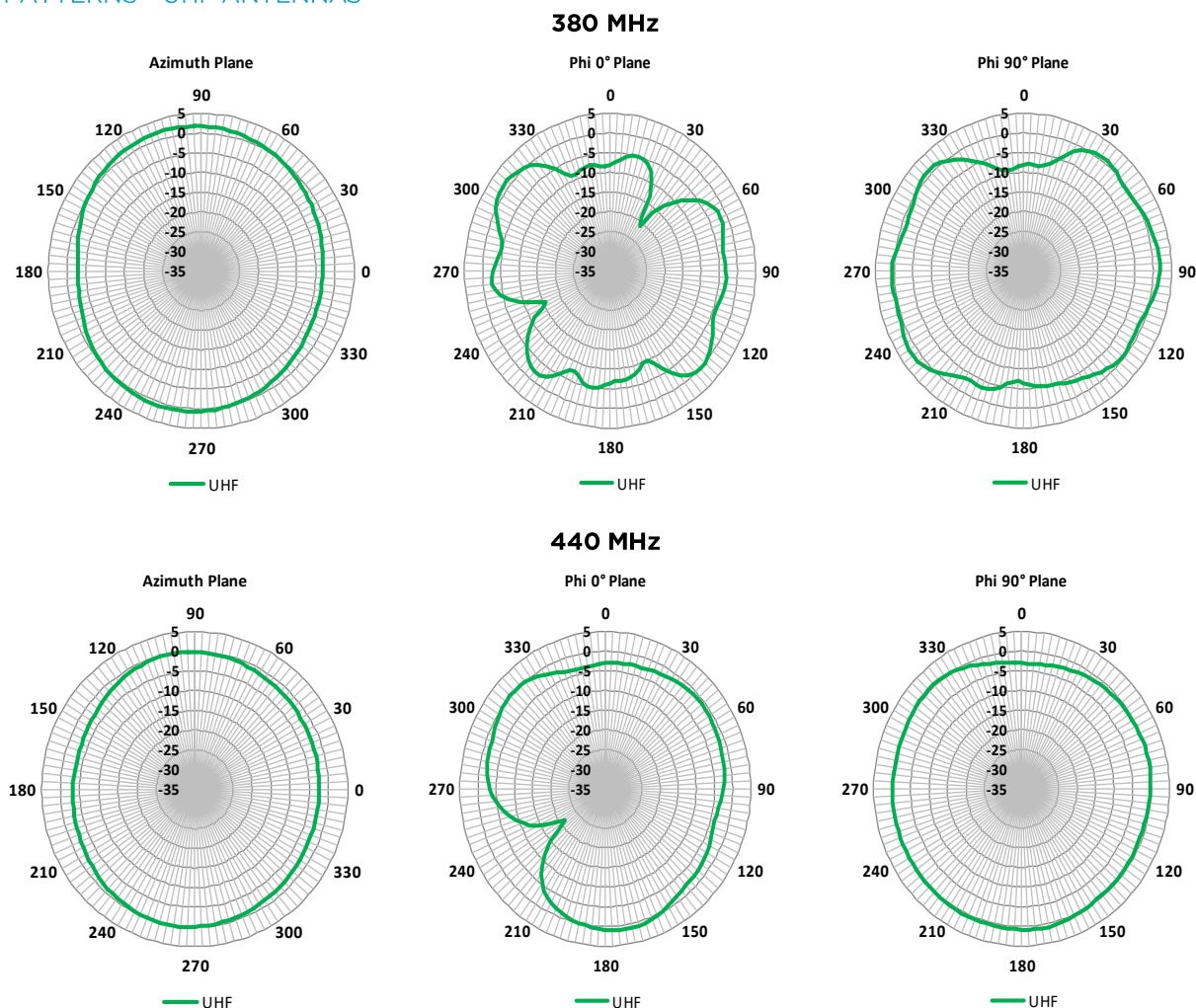
### 3500 MHz



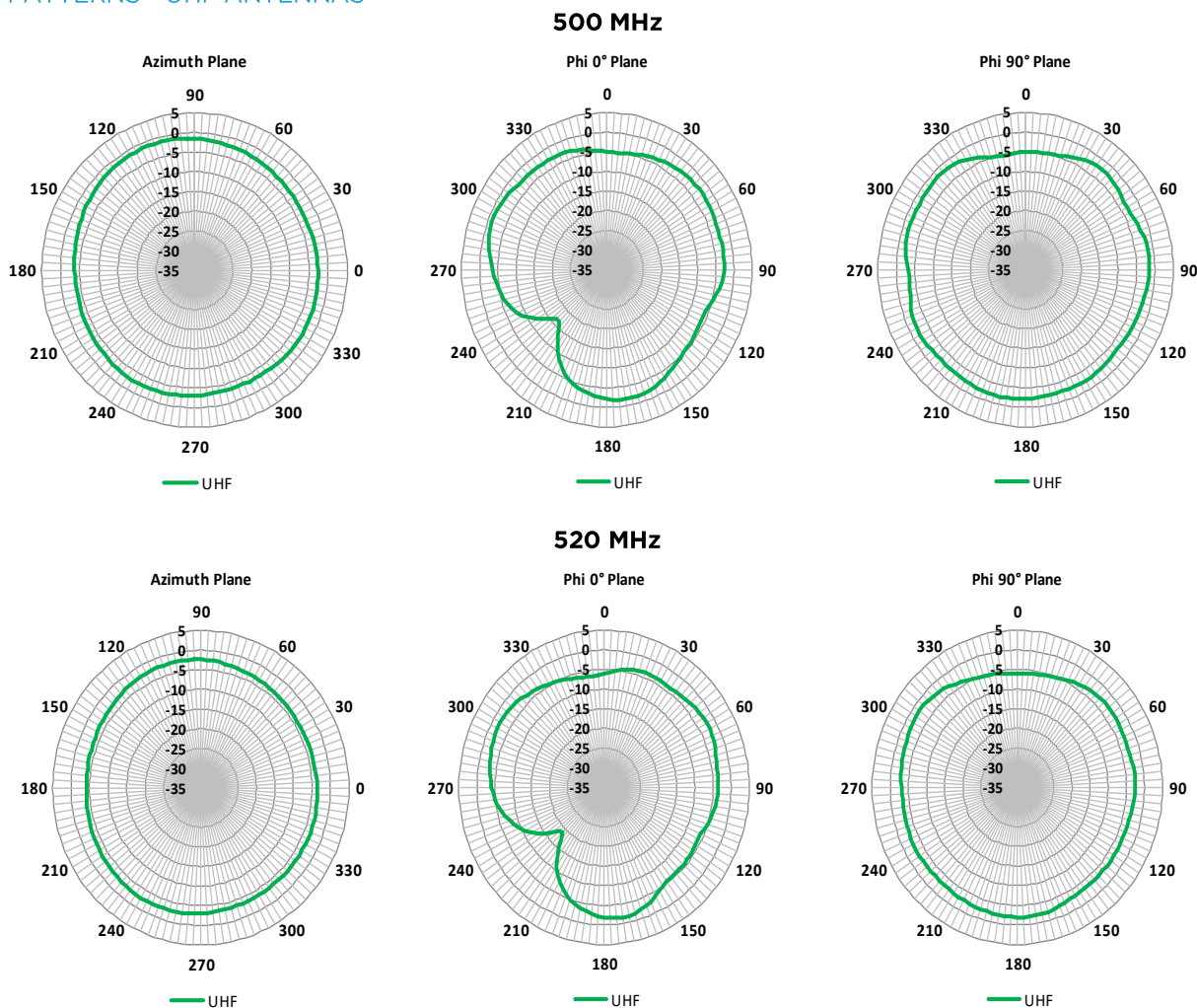
## RADIATION PATTERNS - LTE ANTENNAS



## RADIATION PATTERNS - UHF ANTENNAS



### RADIATION PATTERNS - UHF ANTENNAS



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