



The Gar VFD69383x1NJN multiport/multiband antenna provides an excellent solution for public safety, transportation, and aftermarket fleet applications. Configured for one-port operation over the 3G/4G/5G/ISM/CBRS bands and a second port providing 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/Multiport operation LTE/GNSS navigation

APPLICATIONS

- FirstNet/Public safety
- Transportation
- Aftermarket fleet
- 5G-ready
- Rugged LTE gateways
- Others

ELECTRICAL SPECIFICATIONS

Antenna Model	VFD69383x1NJN								
Number of Ports	2 (1x – LTE, 1x – GNSS)								
Port Configuration	1x – 3G/4G/5G/ISM/CBRS (LTE/CELL)								
Operating Frequency (MHz)	698-806	824-894	880-960	1690-1880	1850-1990	1910-2180	2300-2500	2500-2700	3300-3800
Peak Gain* – Avg. (dBi)	0.9	1.7	1.9	3.9	3.5	2.9	3.9	5.2	5.3
Peak Gain* – Max (dBi)	1.3	2.0	2.0	4.3	3.8	3.8	5.1	5.5	7.0
VSWR** – Avg.	1.7	1.6	1.6	1.5	1.4	1.5	1.6	1.5	1.3
VSWR** – Max	2.5	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0
Isolation LTE1 to GNSS (dB)	-41	-43	-42	-46	-53	-53	-57	-53	-39
Azimuth Plane 3 dB Beamwidth	360°, Omnidirectional								
Nominal Impedance (Ohms)	50								
Polarization	Linear Vertical								
Max Power - Ambient 25°C (W)	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.)	0.54 kg (1.2 lbs.)
Mounting	P-Mount
Cable Type	LMR 100- pigtails, LMR 195- jumper cables, Black
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
Rail Compliance Standards	EN61373 (Shock & Vibration), EN50155 (Temperature)
Material Substance Compliance	RoHS

CONFIGURATIONS

PART NUMBER	CABLE LENGTH		CONNECTORS		COLOR
	PIGTAIL	JUMPER	LTE/CELL	GNSS	
VFD69383B1NJN-518Q	0.3 m (1 ft.)	4.9 m (16 ft)	SMA-male	SMA-male	Black
VFD69383W1NJN-518Q	0.3 m (1 ft.)	4.9 m (16 ft)	SMA-male	SMA-male	White

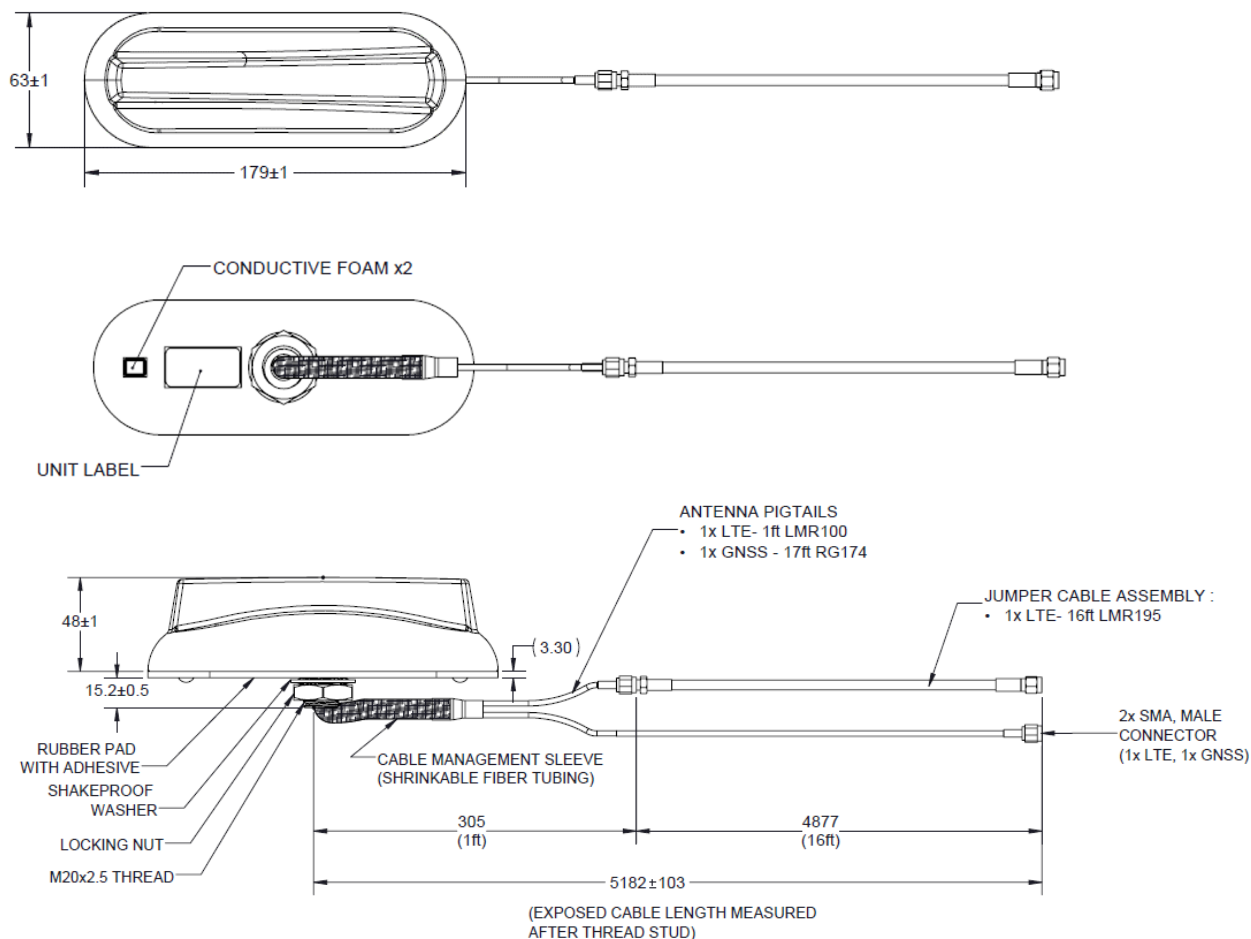
GNSS ANTENNA SPECIFICATIONS

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)	3.7	4.7	5.6
LNA Gain, Typ. @ room temp. (dBi)	28 ± 3		
Noise Figure @ room temp., Max (dB)	≤ 2.5 @ 1575 MHz		
Max VSWR @ room temp.	2.0:1		
Polarization	RHCP		
Nominal Impedance	50 Ω		
DC Voltage (Vdc)	3.3		
Operating Supply Voltage (Vdc)	2.5 - 7.0		
Current Consumption, Max @ room temp mA	8.5 ± 3 @ 3.0V		
Out-of-band Signal Rejection Min @ room temp (dBc)	80 (@698-960 MHz)	80 (@1428-2700 MHz)	70 (@4900-5800 MHz)
Input Max Power (dBm)	-10		
Cable Type	RG174, Black		

PACKAGING INFORMATION

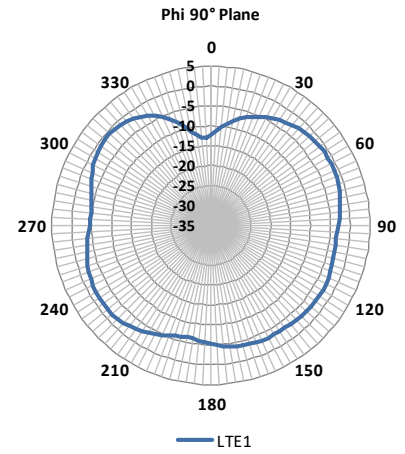
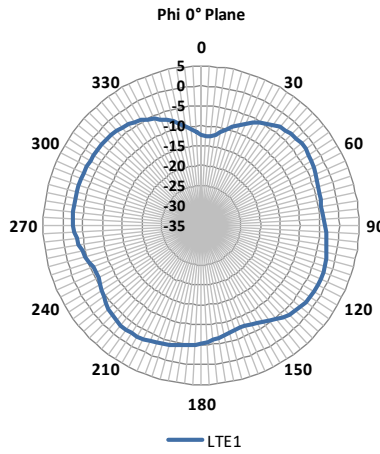
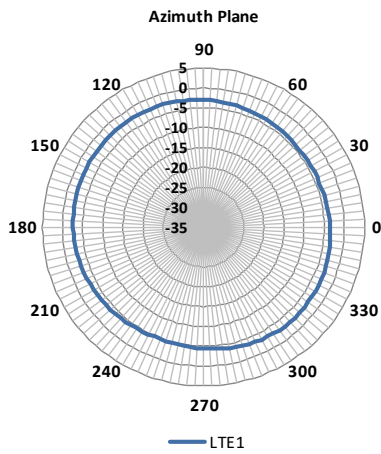
PACKAGED DIMENSIONS	CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	4	140	196
Height – mm (in.)	130 (5.12)	235 (9.25)	1335 (52.56)	1813 (71.38)
Length – mm (in.)	222 (8.74)	543 (21.38)	1200 (47.24)	1200 (47.24)
Width – mm (in.)	222 (8.74)	232 (9.13)	800 (31.5)	800 (31.5)
Shipping Weight – kg (lb.)	0.77 (1.7)	3.62 (7.98)	140 (309)	190 (419)

MECHANICAL DRAWINGS

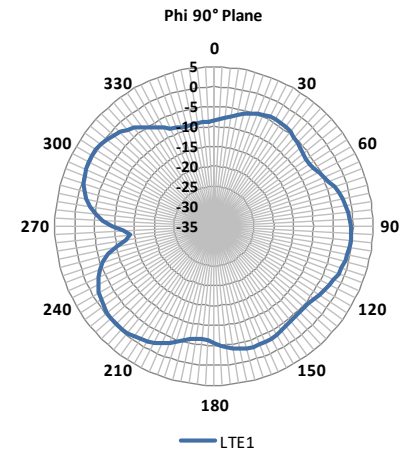
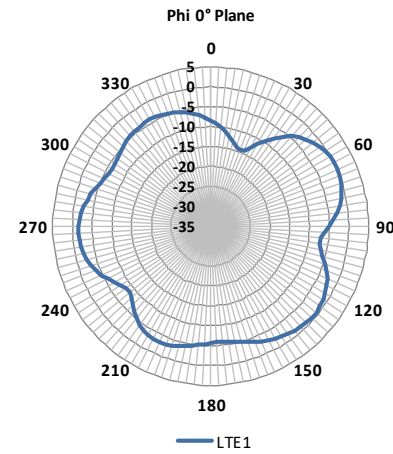
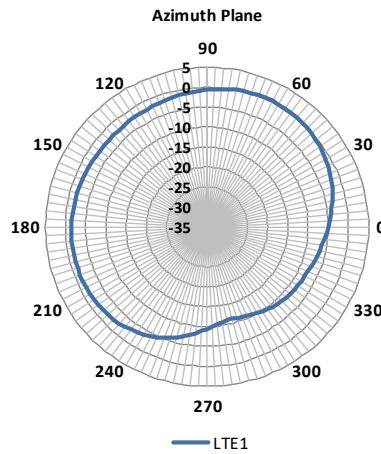


RADIATION PATTERNS - LTE ANTENNAS

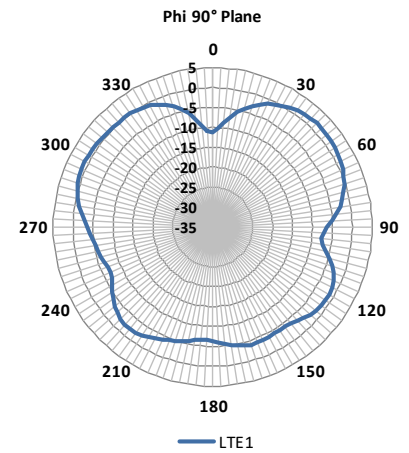
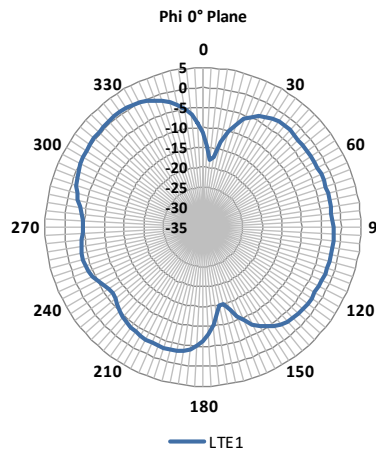
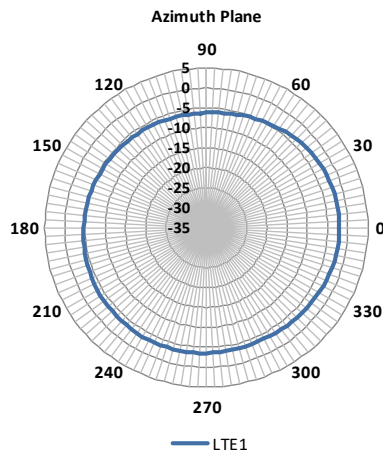
698 MHz



725 MHz

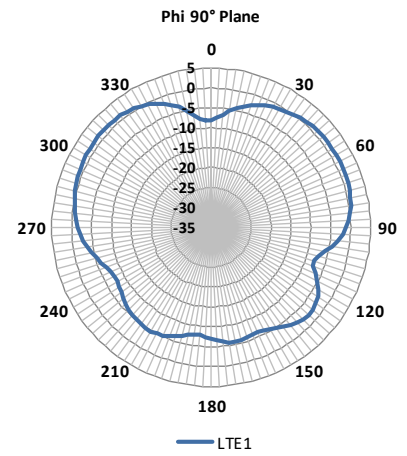
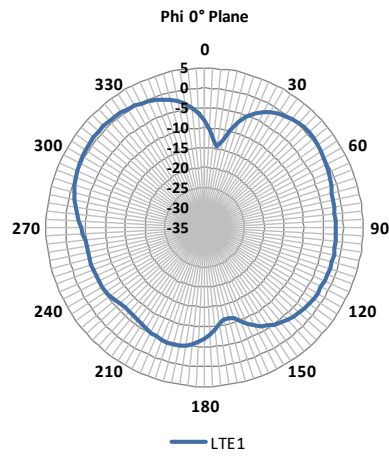
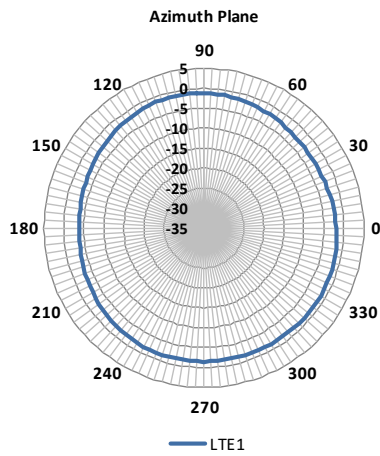


880 MHz

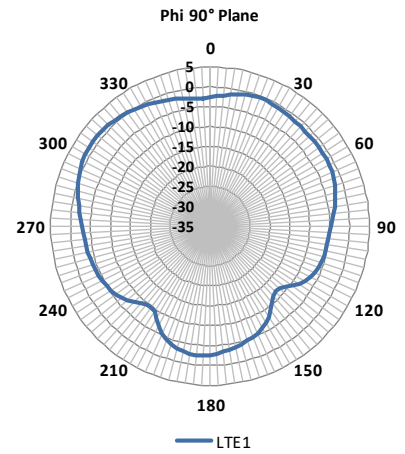
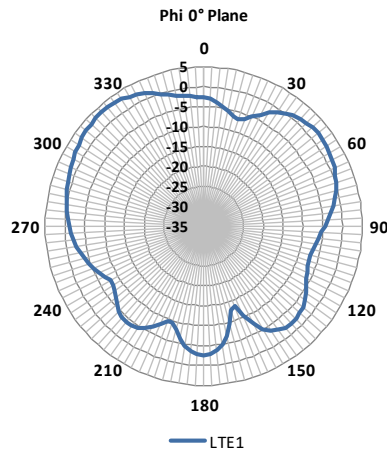
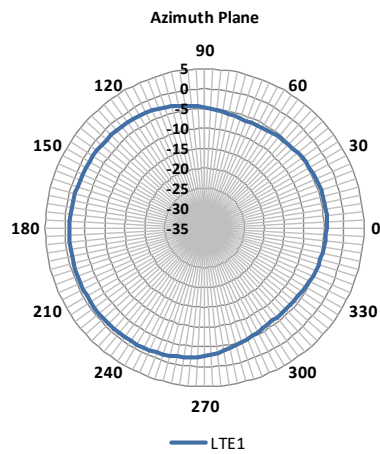


RADIATION PATTERNS - LTE ANTENNAS

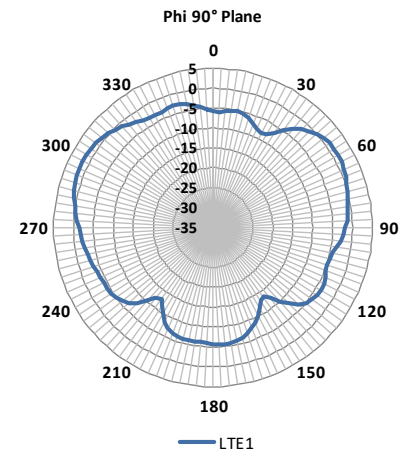
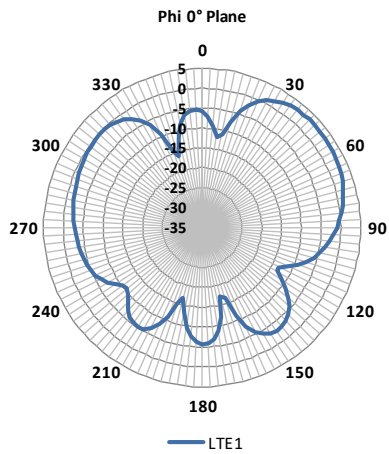
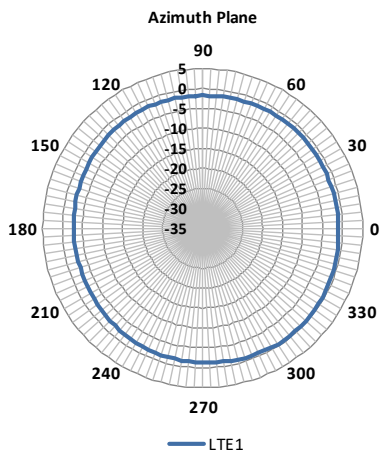
960 MHz



1690 MHz

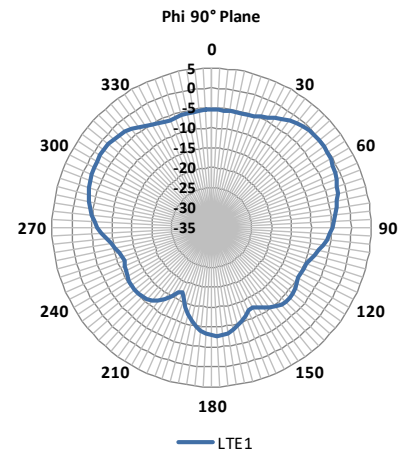
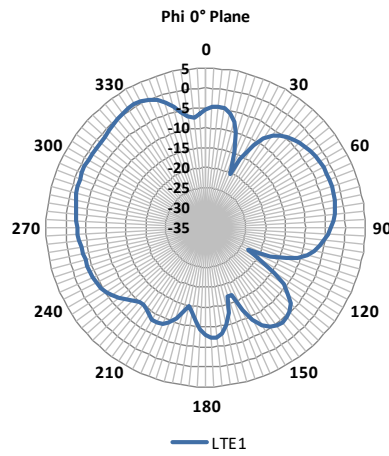
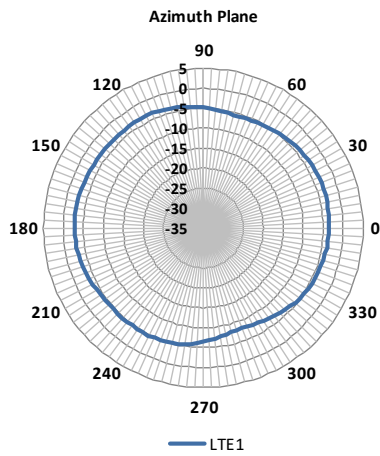


1920 MHz

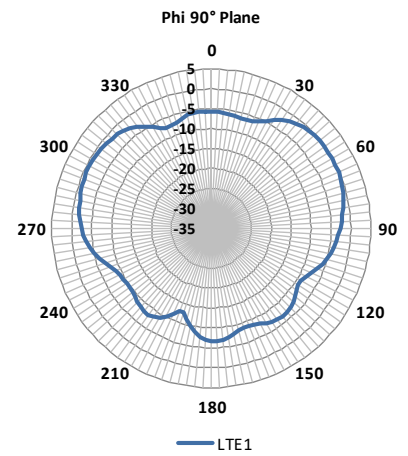
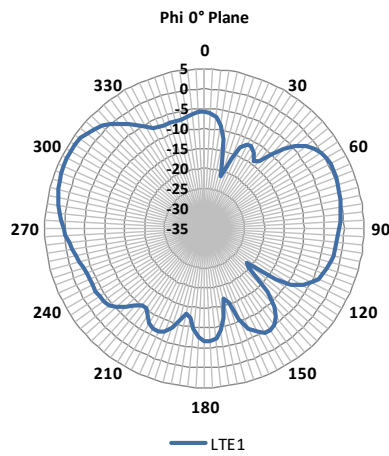
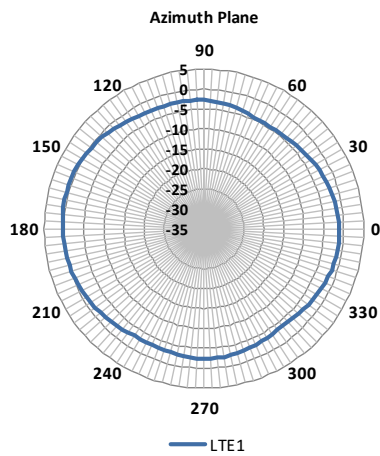


RADIATION PATTERNS - LTE ANTENNAS

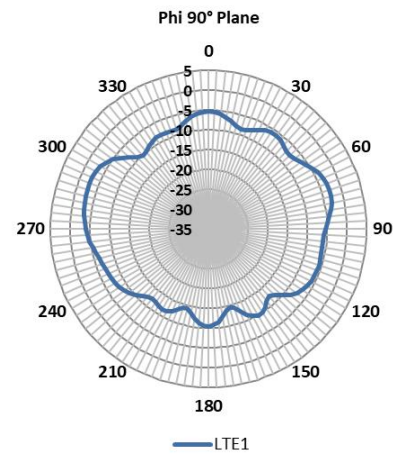
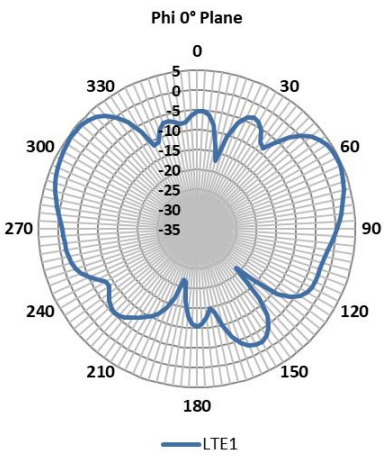
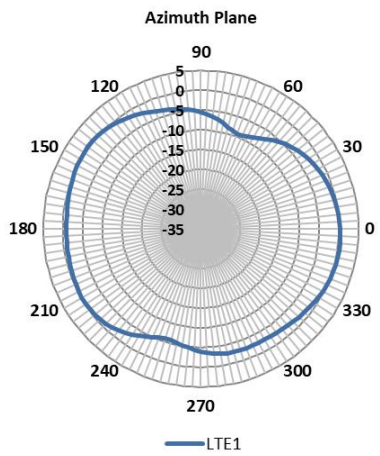
2110 MHz



2400 MHz

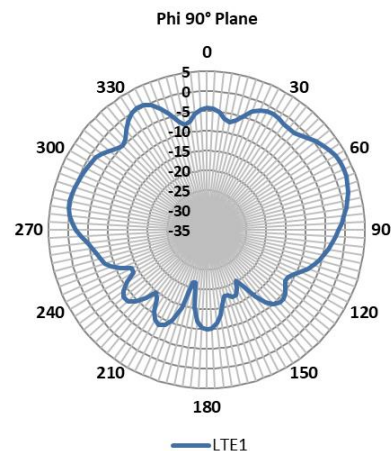
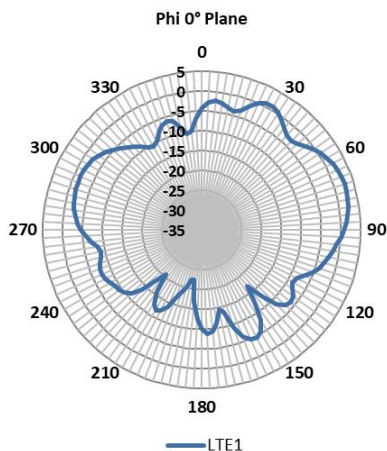
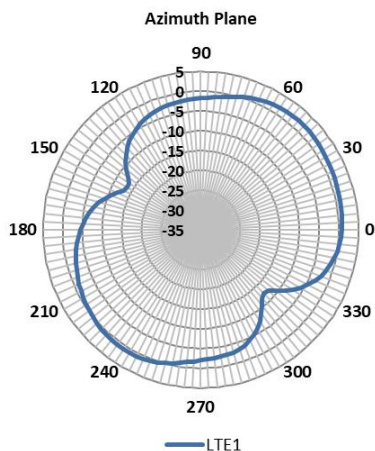


2700 MHz

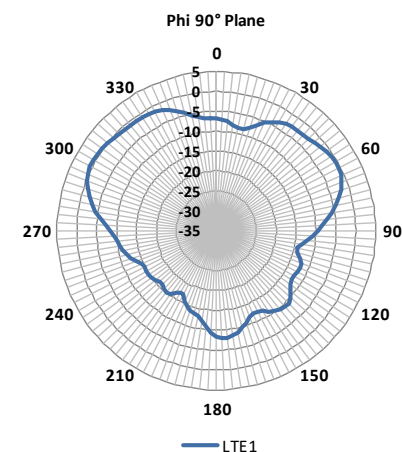
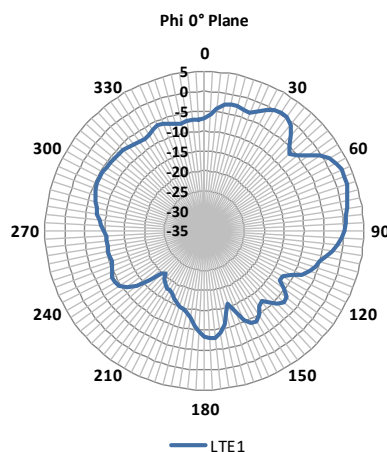
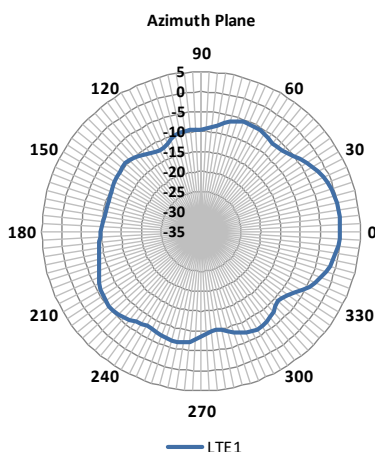


RADIATION PATTERNS - LTE ANTENNAS

3400 MHz



3800 MHz



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sales@lairdconnect.com
support@lairdconnect.com
www.lairdconnect.com

