



GAR VFT69383X11JN

3-PORT VEHICULAR MIMO ANTENNA

698-960/1690-3800 MHZ AND 2400-2500/4900-6000 MHZ

The Gar VFT69383x11JN 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 one-port operation over the low//high frequency Wi-Fi bands. An additional third 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/Multiport operation with GNSS navigation
- Operates well on a ground plane and without a ground plane

APPLICATIONS

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

ELECTRICAL SPECIFICATIONS

Antenna Model	VFT69383x11JN					
Number of Ports	3 3					
Port Configuration	1x- 3G/4G/5G/ISM/CBRS (LTE/CELL)				1x- Wi-Fi (WIFI)	
Operating Frequency (MHz)	698-806	824-894	880-960	1690-3800	2400-2500	4900-6000
Avg. Peak Gain* (dBi) - Gnd. Plane [No Gnd. Plane]	0.8 [1.9]	1.4 [2.1]	2.3 [2.5]	7.3 [4.8]	3.9 [1.8]	5.4 [3.9]
Max Peak Gain* (dBi) - Gnd. Plane [No Gnd. Plane]	0.8 [1.9]	1.4 [2.1]	2.3 [2.5]	7.3 [4.8]	3.9 [1.8]	5.4 [3.9]
VSWR** - Avg, Gnd. Plane [No Gnd. Plane]	1.7 [1.4]	1.6 [1.7]	1.6 [1.7]	1.4 [1.5]	1.4 [1.4]	1.2 [1.2]
VSWR** - Max, Gnd. Plane [No Gnd. Plane]	2.5 [2.5]	2.0 [2.5]	2.0 [2.5]	2.1 [2.1]	2.0 [2.0]	2.0 [2.0]
Isolation** (dB)- Gnd. Plane [No Gnd. Plane]						
LTE to WiFi	-46 [-40]	-45 [-41]	-46 [-43]	-24 [-24]	-24 [-24]	-35 [-37]
LTE1 to GNSS	-46 [-42]	-44 [-41]	-43 [-41]	-44 [-40]	-60 [-55]	-51 [-49]
WiFi to GNSS	-74 [-70]	-74 [-70]	-74 [-70]	-55 [-51]	-55 [-52]	-52 [-50]
Azimuth Plane 3 dB Beamwidth	360°, Omnidirectional					
Nominal Impedance (Ohms)	50					
Polarization	Linear Vertical					
Max Power - Ambient 25°C (W)	30 (LTE/CELL); 10 (WIFI)					

Notes: (*) - This parameter is based on a 30cm (1ft) cable length. For the ground plane measurement, a 30cm (1ft) ground plane was used
 (**) - This parameter is based on a 518cm (17ft) cable length. For the ground plane measurement, a 30cm (1ft) ground plane was used.
 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.)	0.73 kg (1.6 lbs)
Cable Type	LMR 100- pigtails, LMR 195- jumper cables
Mounting	P-Mount
Radome Material	PC, UL94-V0
Baseplate Material	Aluminum

ENVIRONMENTAL SPECIFICATIONS

Operating Environment	Outdoor Vehicle
Operating Temperature - °C (°F)	-40 to +85°C (-40 to +185°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	WIFI	GNSS	
VFT69383B11JN-518L	0.3 m (1 ft)	4.9 m (16 ft)	SMA-male	RPSMA-male	SMA-male	Black
VFT69383W11JN-518L	0.3 m (1 ft)	4.9 m (16 ft)	SMA-male	RPSMA-male	SMA-male	White

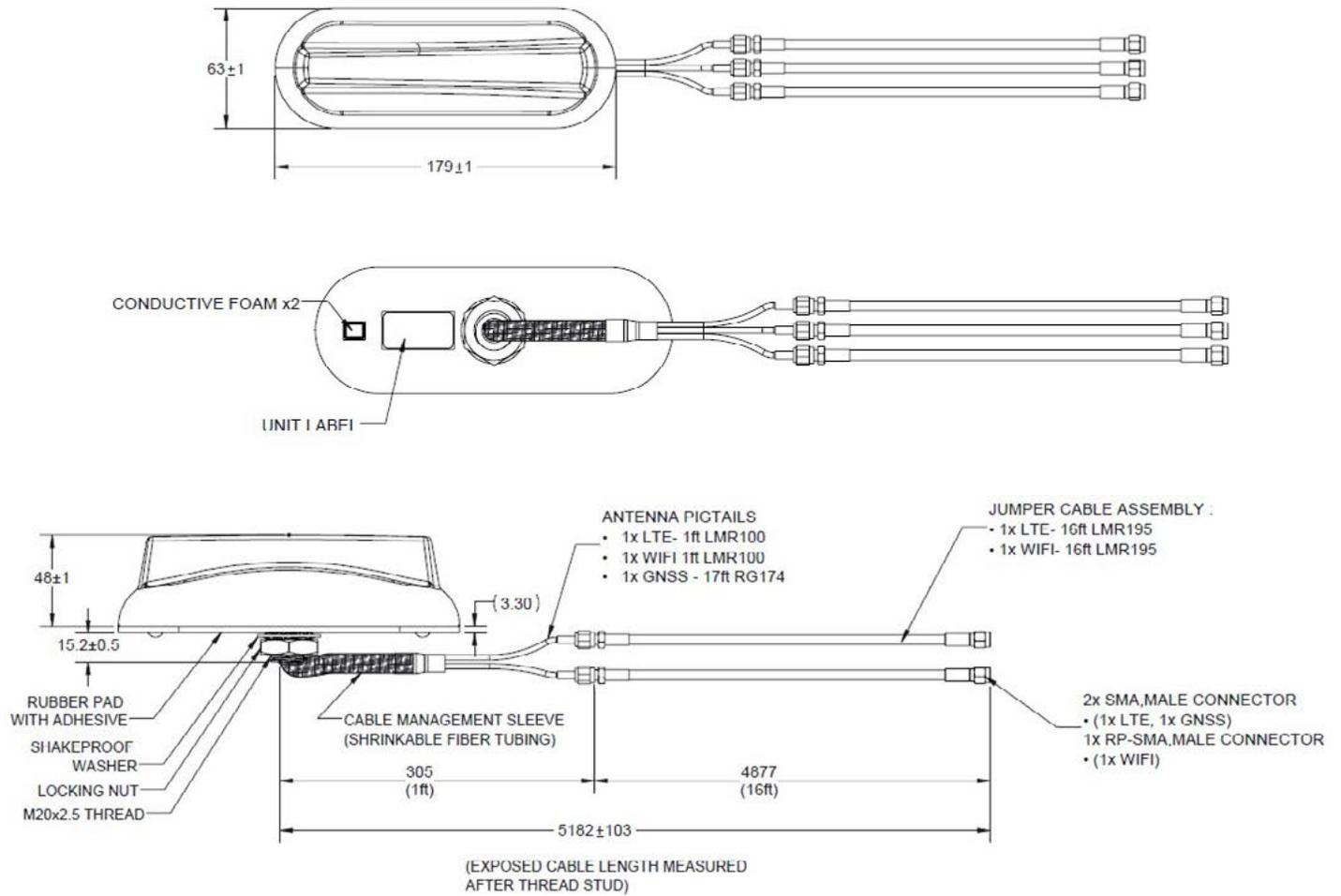
GNSS ANTENNA SPECIFICATIONS

Frequency of Operation (MHz)	1559 - 1606				
Band	BEIDOU	GPS	GLONASS		
Frequency Band (MHz)	1561.098 ±2.046	1575.42 ±1.023	1602 ±5		
Absolute Gain (dBi) - Gnd. Plane [No Gnd. Plane]	3.4 [3.8]	4.5 [5.1]	5.6 [4.5]		
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 (Ohms)	50				
DC 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 @ 1428-1511 MHz	50 @ 1627-1638 MHz	80 @ 1710-2700 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.)	0.96(2.1)	4.39 (9.68)	167 (368)	228 (503)

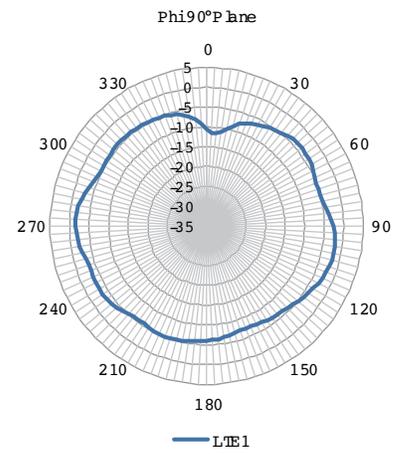
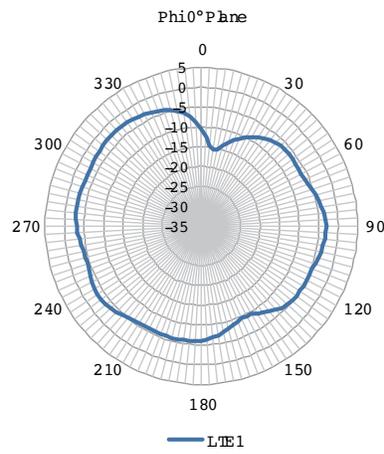
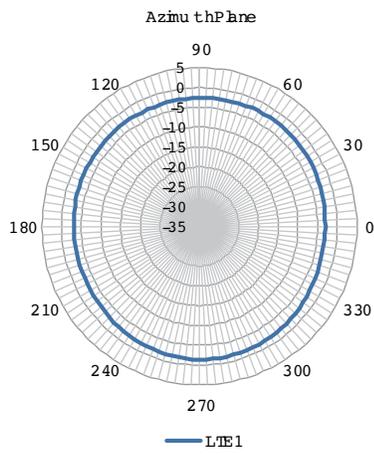
MECHANICAL DRAWINGS



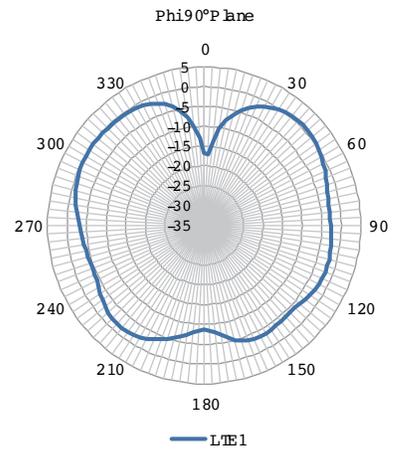
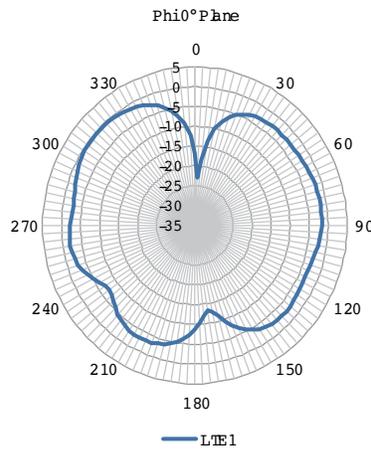
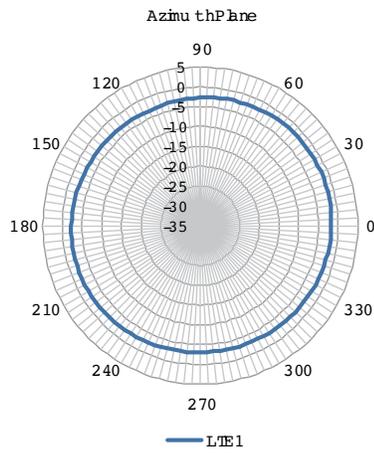
The Gar antenna can create an IP67 water-tight seal when installed on vehicles. Certain vehicles such as a Ford Explorer Interceptor have more narrow roof ridges that are tightly spaced together. For this type, vehicle special adapters are available. See parts BKIT-VFX69383-001 (between ridges installation) and BKIT-VFX69383-003 (atop ridge installation) for product details.

RADIATION PATTERNS WITH GROUND PLANE - LTE ANTENNAS

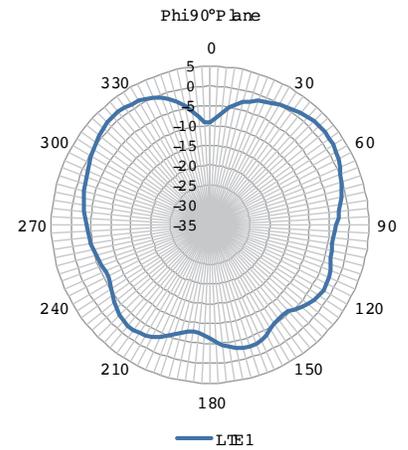
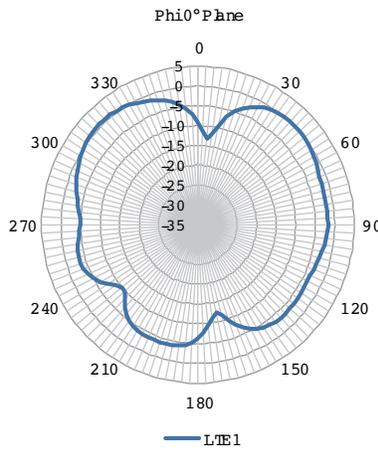
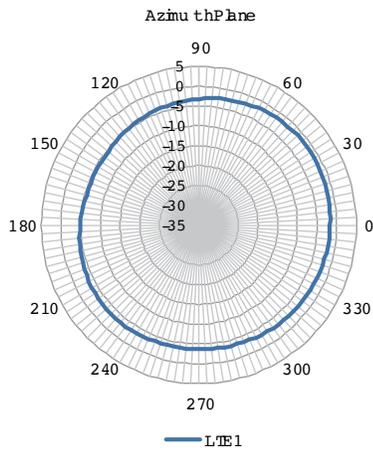
698 MHz



880 MHz

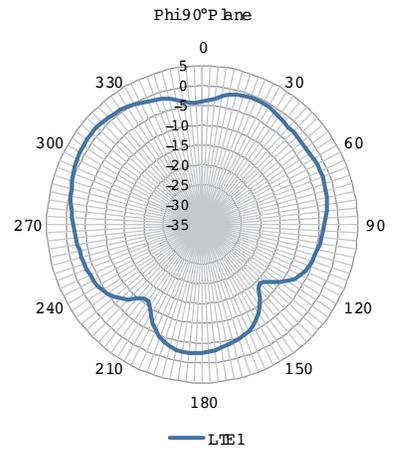
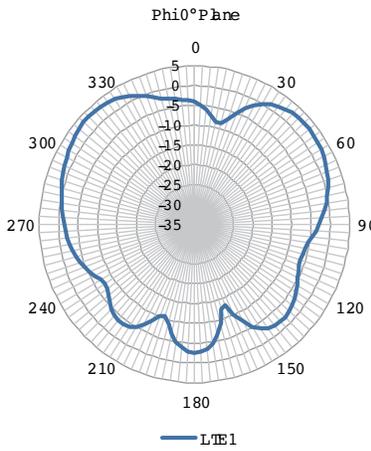
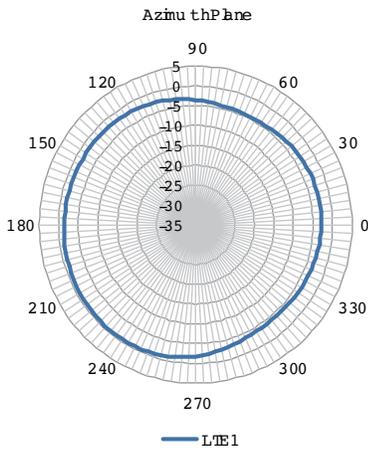


960 MHz

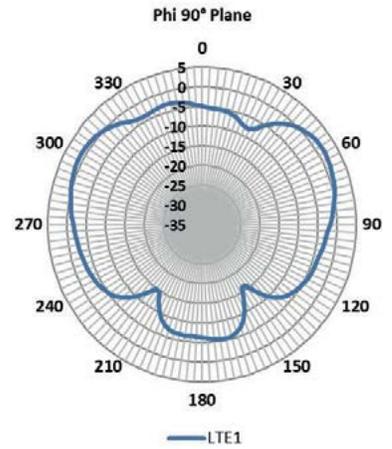
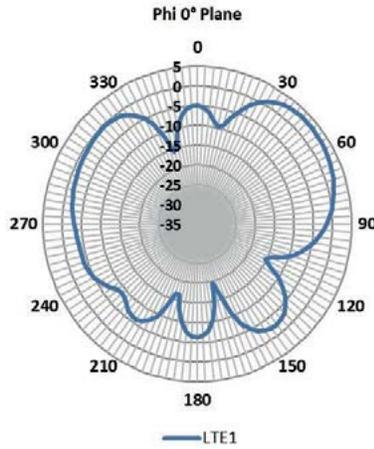
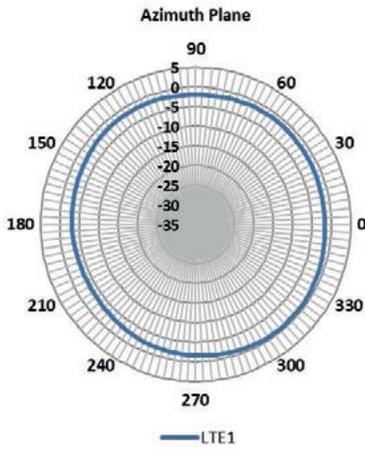


RADIATION PATTERNS WITH GROUND PLANE - LTE ANTENNAS

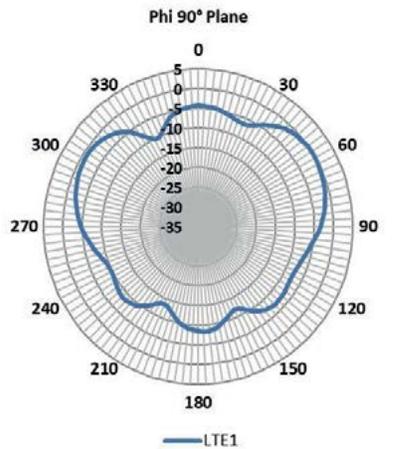
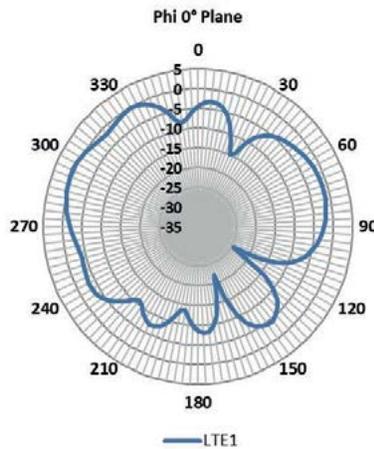
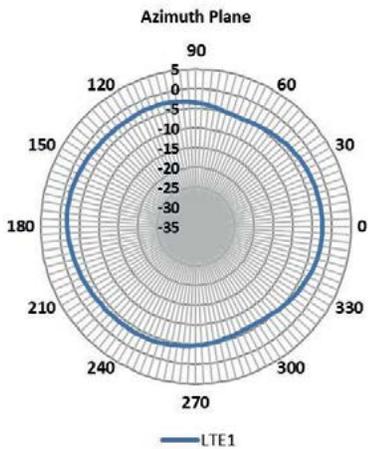
1690 MHz



1920 MHz

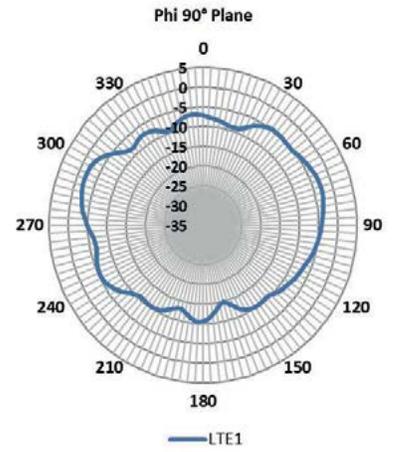
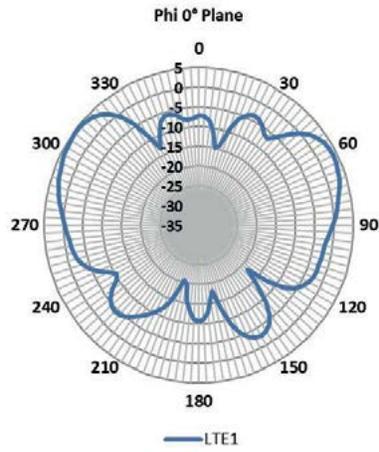
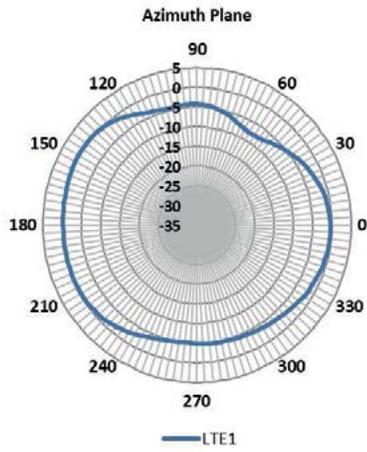


2170 MHz

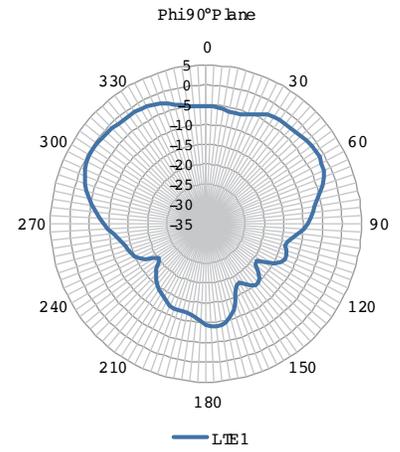
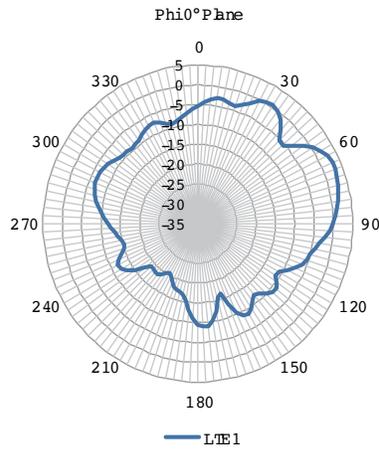
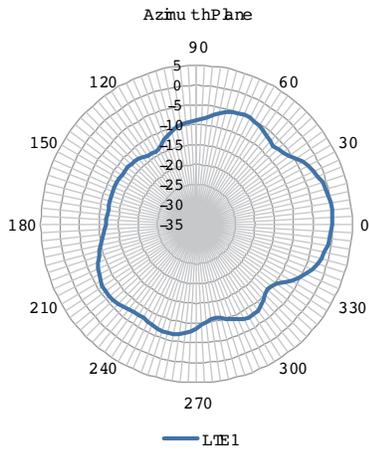


RADIATION PATTERNS WITH GROUND PLANE - LTE ANTENNAS

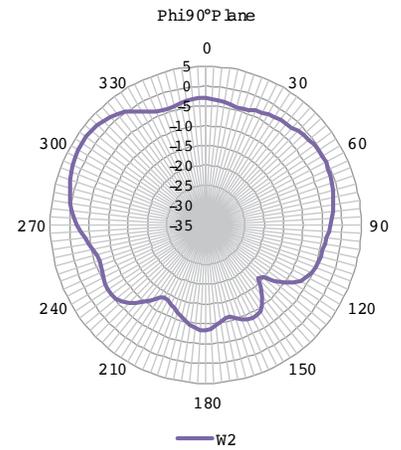
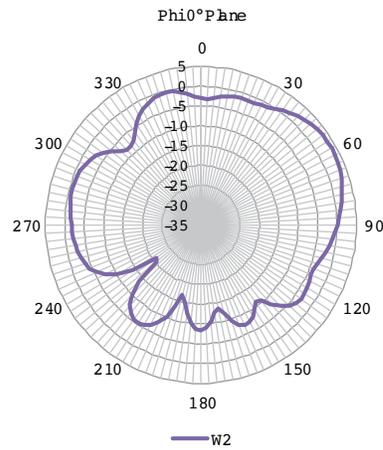
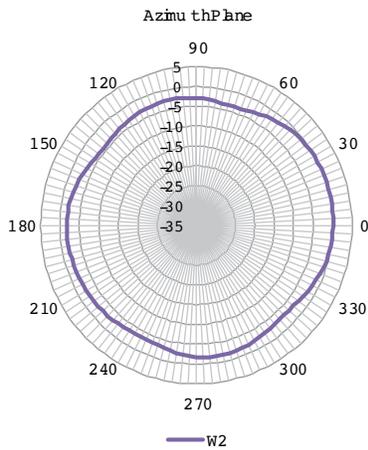
2700 MHz



3800 MHz

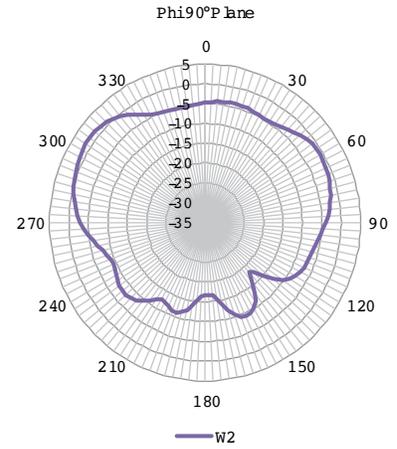
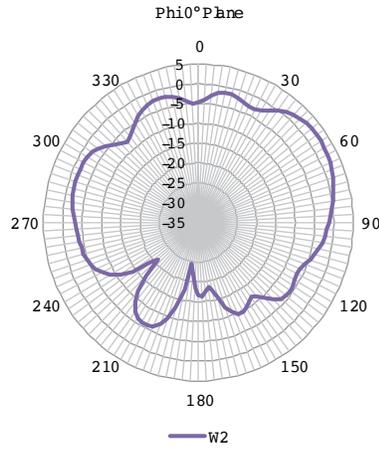
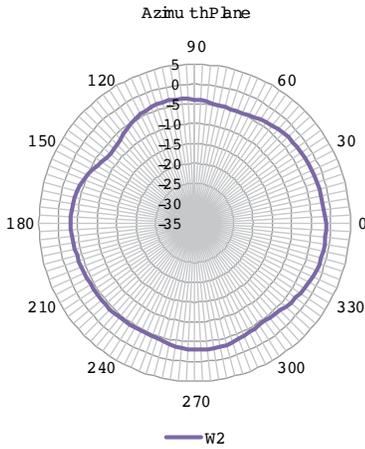


2400 MHz

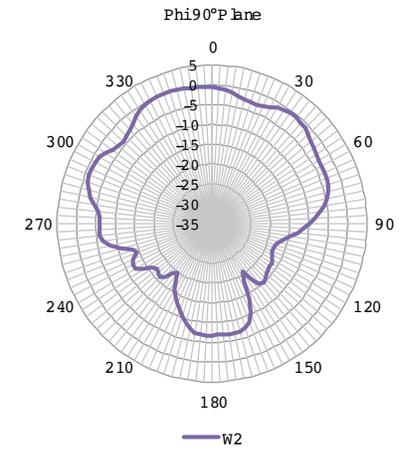
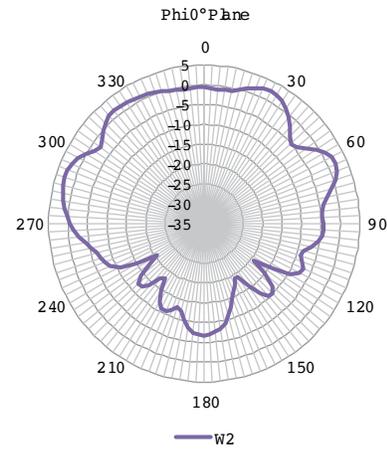
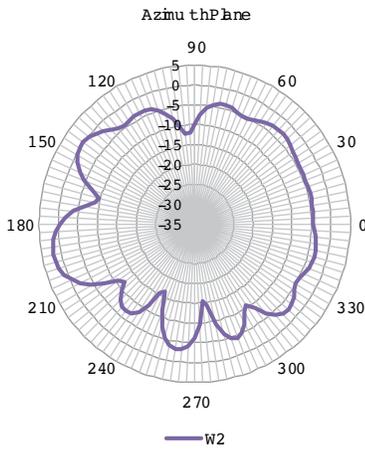


RADIATION PATTERNS WITH GROUND PLANE - WIFI ANTENNAS

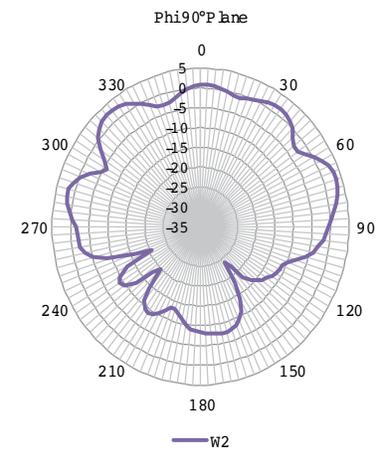
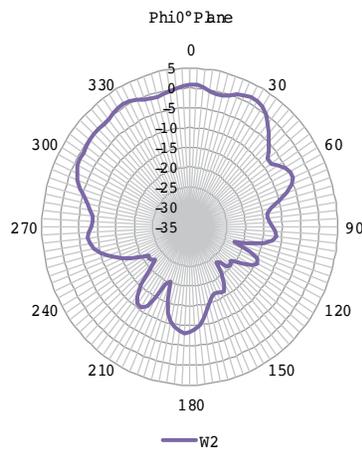
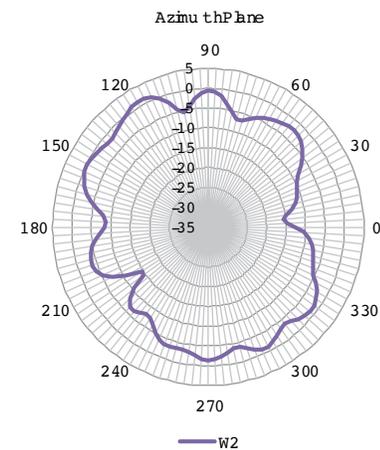
2500 MHz



4900 MHz

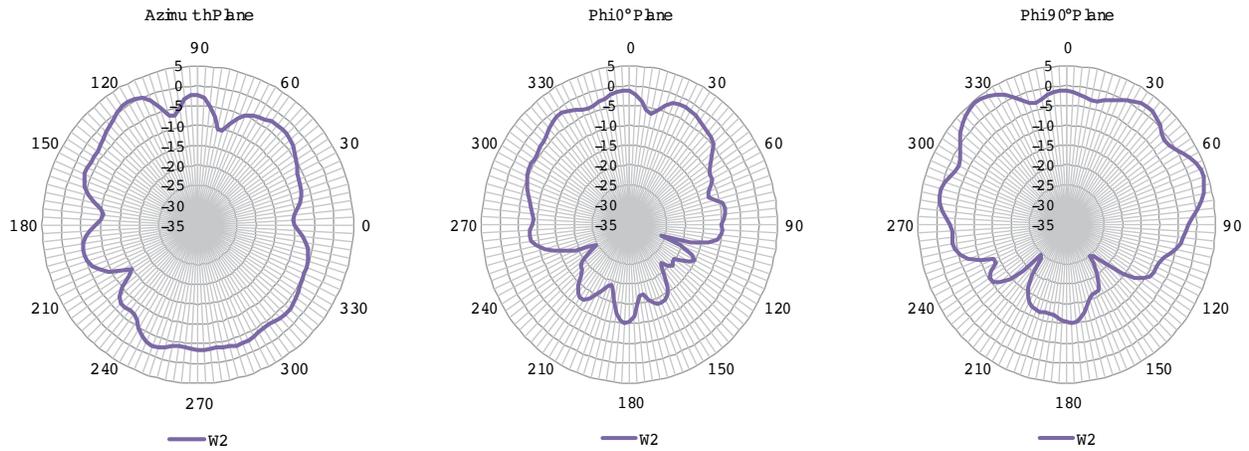


5750 MHz



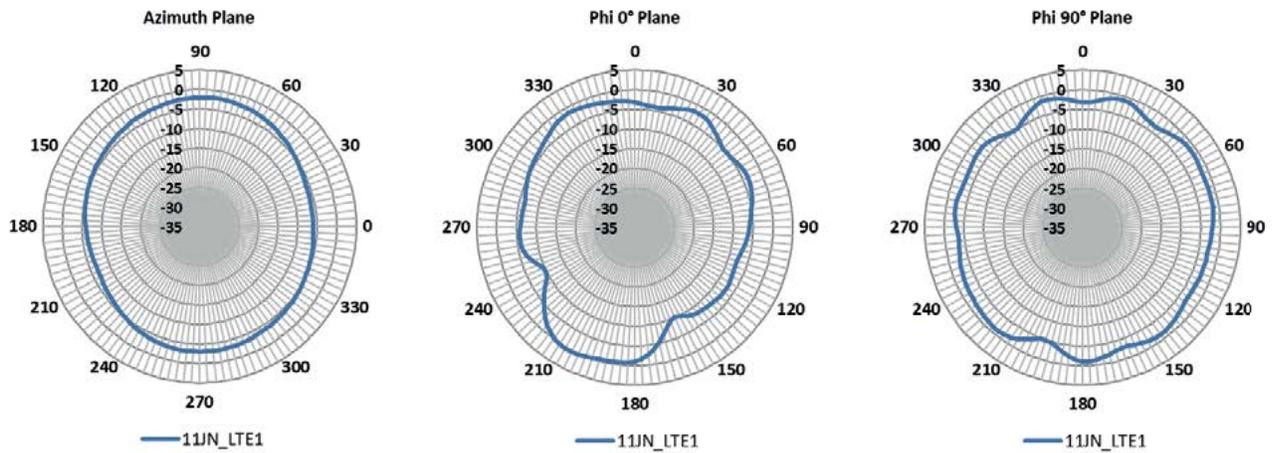
RADIATION PATTERNS WITH GROUND PLANE - WIFI ANTENNAS

6000 MHz

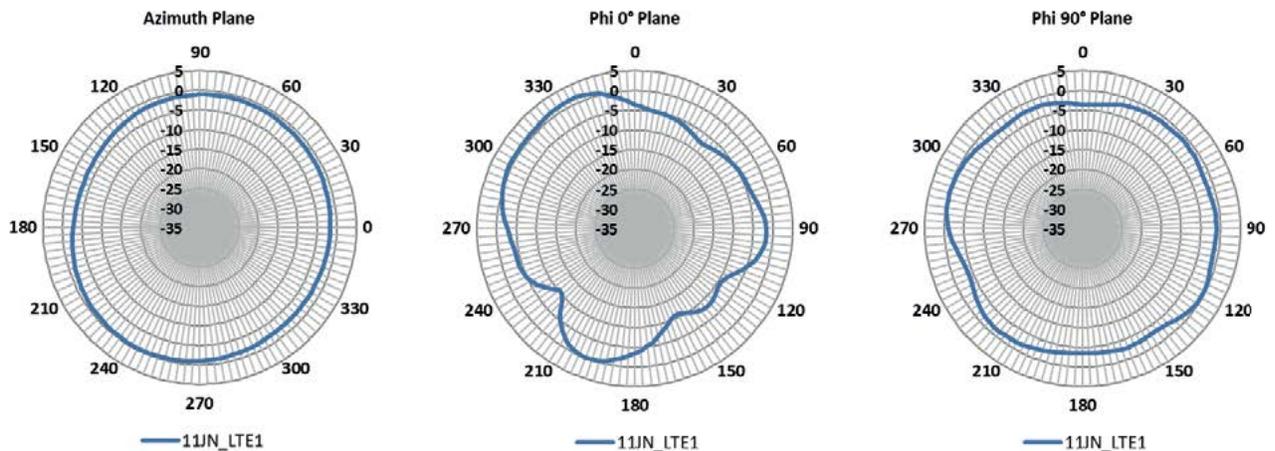


RADIATION PATTERNS WITHOUT GROUND PLANE - LTE ANTENNAS

698 MHz

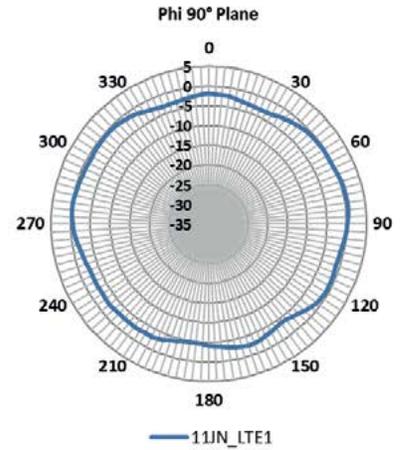
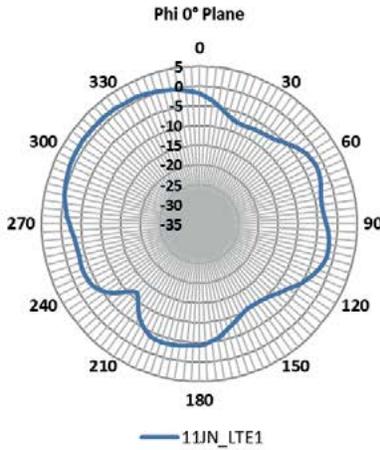
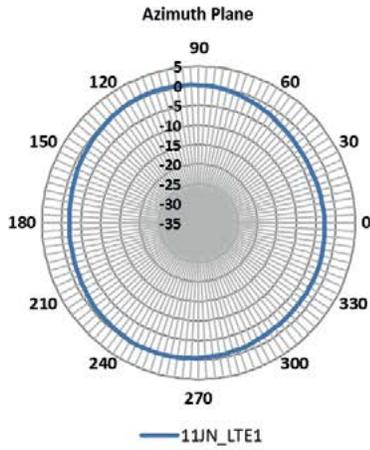


880 MHz

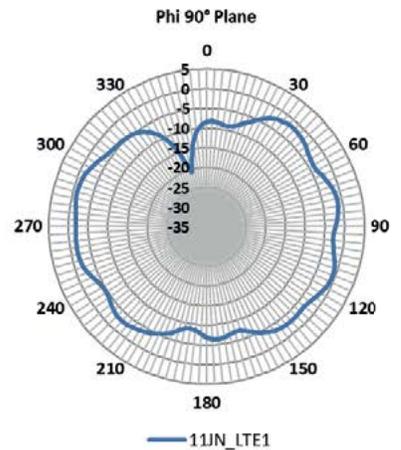
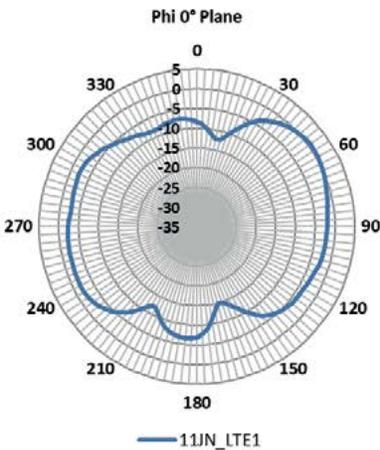
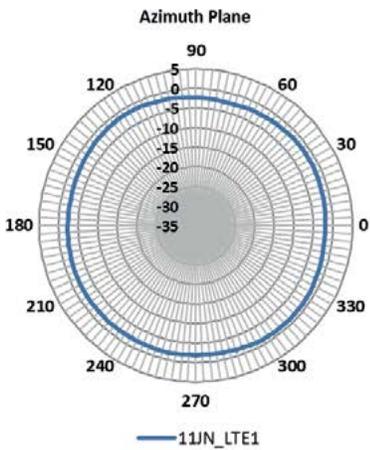


RADIATION PATTERNS WITHOUT GROUND PLANE - LTE ANTENNAS

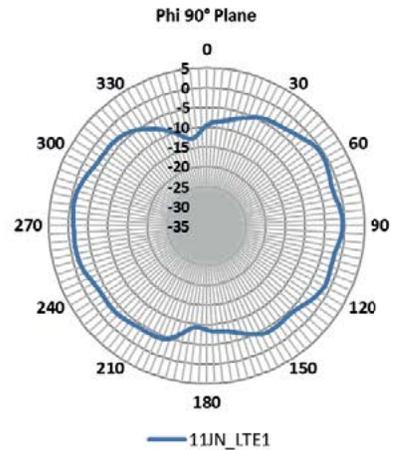
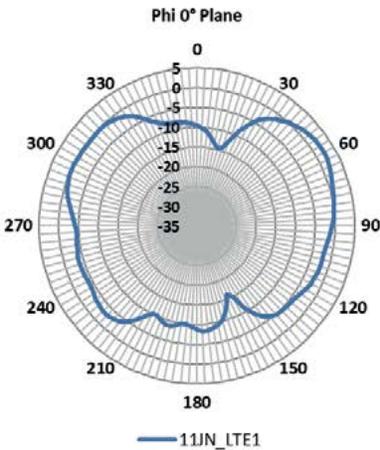
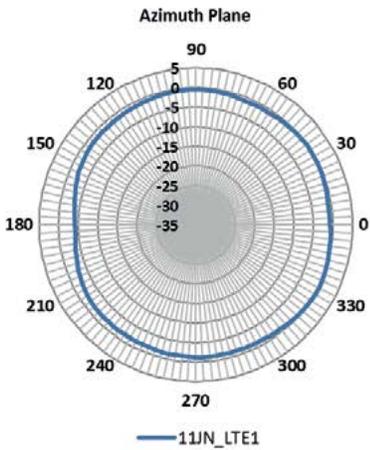
960 MHz



1690 MHz

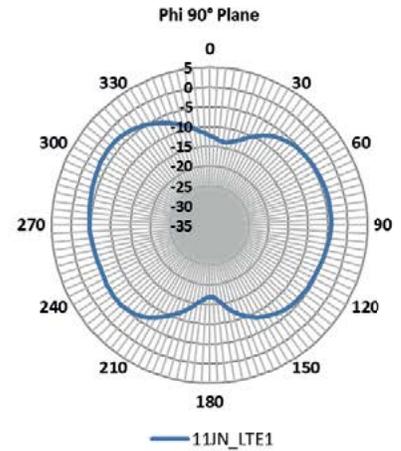
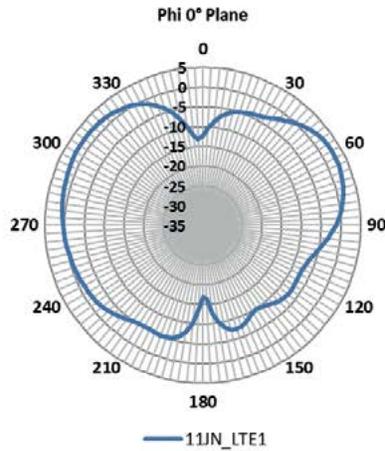
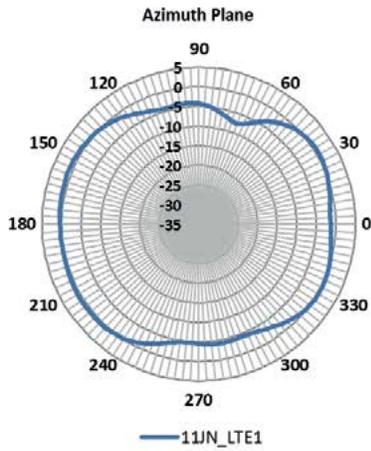


1920 MHz

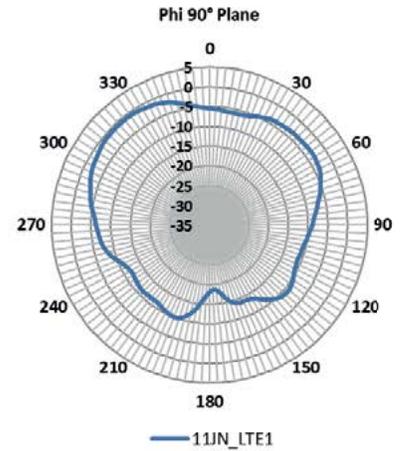
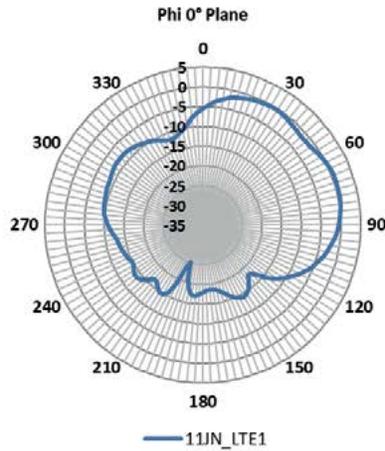
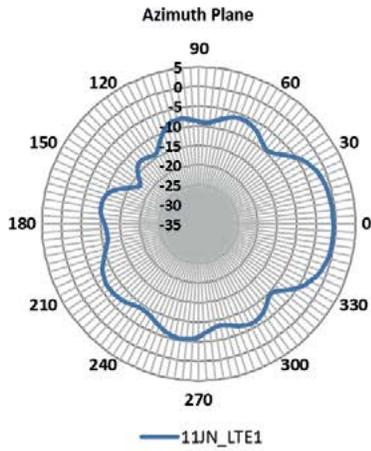


RADIATION PATTERNS WITHOUT GROUND PLANE - LTE ANTENNAS

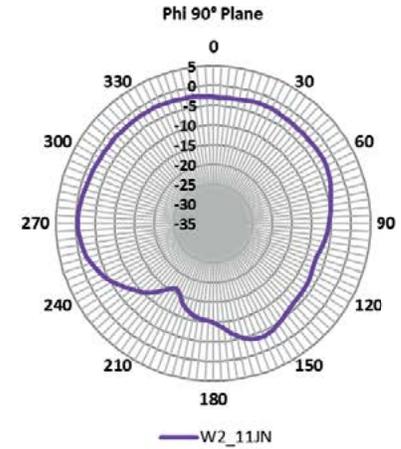
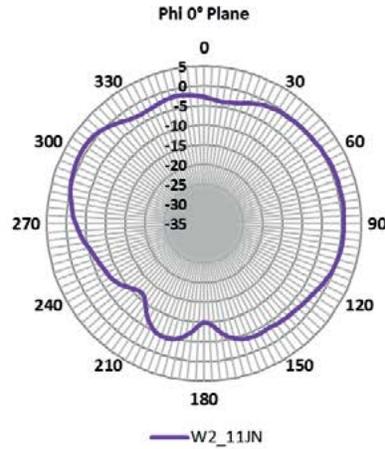
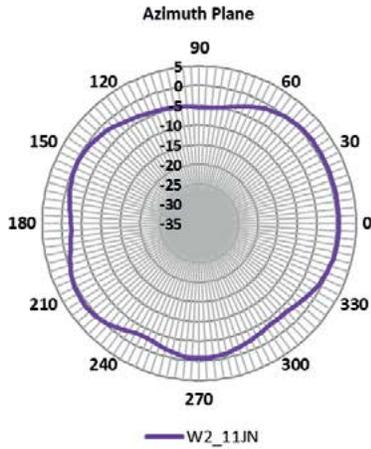
2700 MHz



3800 MHz

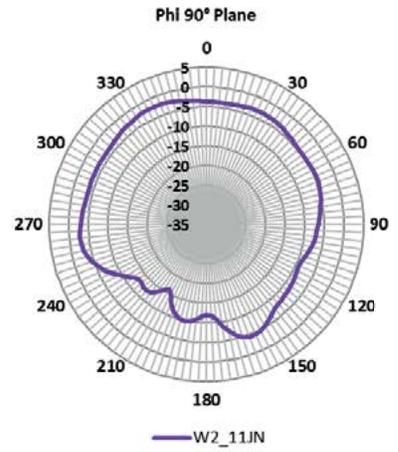
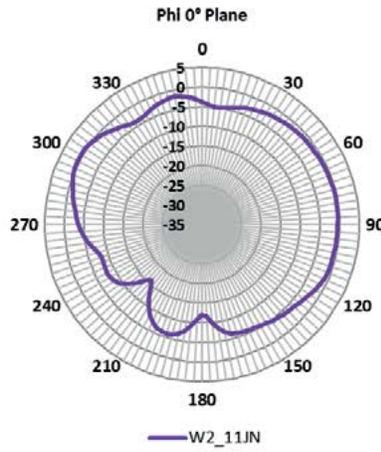
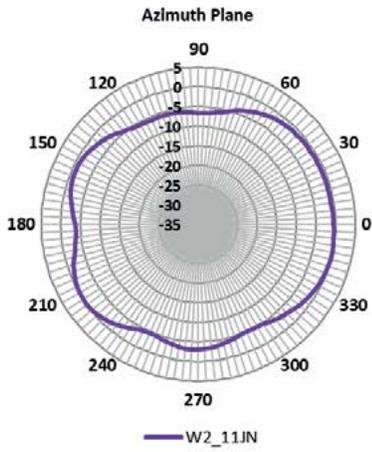


2400 MHz

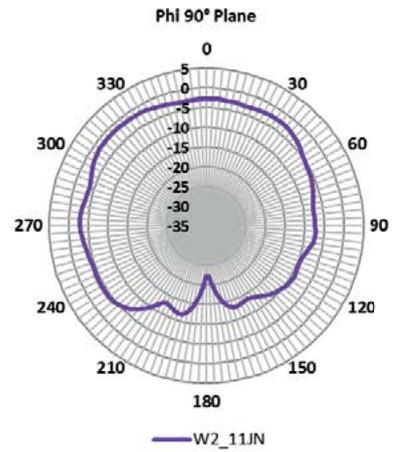
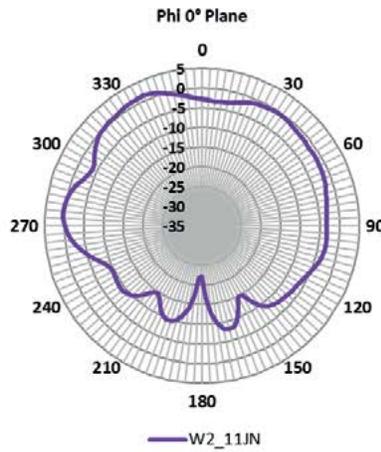
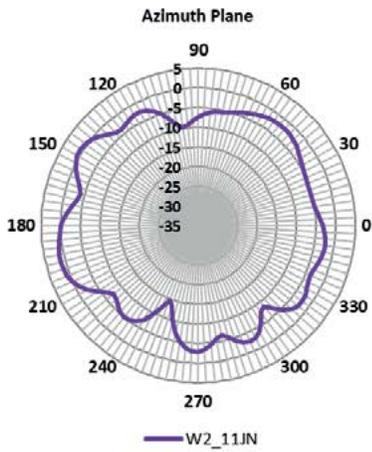


RADIATION PATTERNS WITHOUT GROUND PLANE - WIFI ANTENNAS

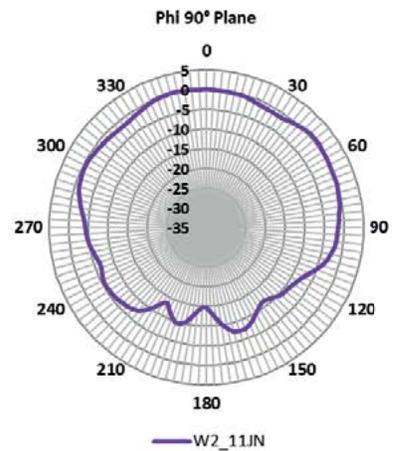
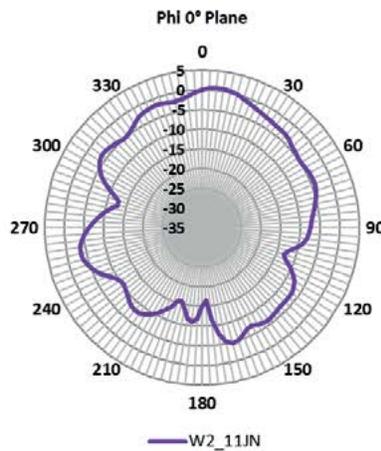
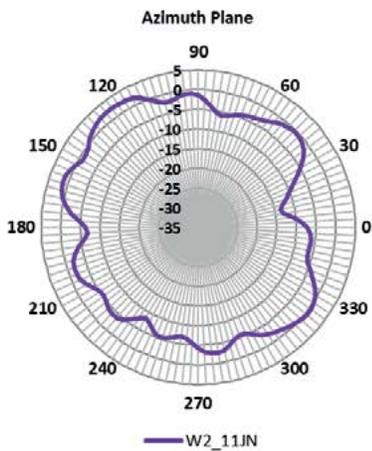
2500 MHz



4900 MHz

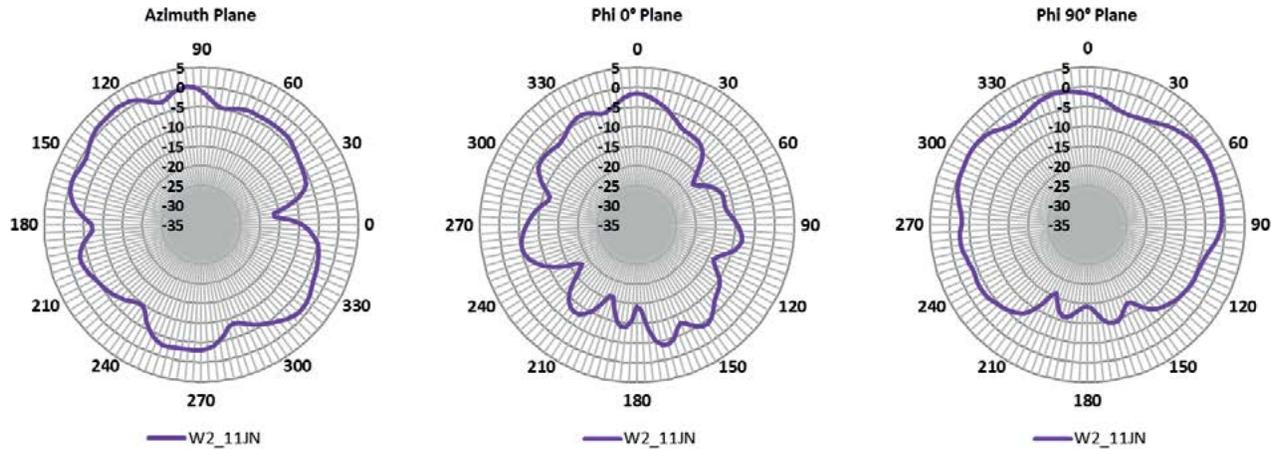


5750 MHz



RADIATION PATTERNS WITHOUT GROUND PLANE - WIFI ANTENNAS

6000 MHz



TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

te.com

TE, TE Connectivity, TE connectivity (logo), and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity plc family of companies. Other product names, logos, and company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this document, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, complete, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event will TE be liable for any direct, indirect, incidental, special or consequential damages arising from or related to recipient's use of the information. It is the sole responsibility of recipient of this information to verify the results of this information using their engineering and product environment. Recipient assumes any and all risks associated with the use of the information. Antenna performance may vary. TE is a component manufacturer, and customer and/or end-user is responsible for all end-use compliance and regulatory requirements.

©2025 TE Connectivity. All Rights Reserved.

05/25 Original