# mail

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**Series: Low Profile MB** 

TECHNICAL DATA SHEET

**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

## PART NUMBER: GPSLPMB403



## Features:

- 2xMiMo 698-960/1710-2690MHz
- WiFi 2400-2500/4900-5900MHz
- Active GNSS:
  - GPS, Galileo, Glonass, Beidou
  - LNA Gain 30dB
- Size 145x135x25mm
- Adhesive mount on plastic and glass fiber surfaces
- Mounting accessory for metallic surfaces

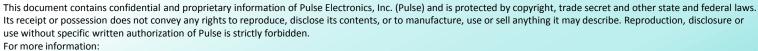
# **Applications:**

- · Vehicle mount multiband antenna
- High Speed LTE data and WiFi
- Tracking, Navigation
- Fleet management
- Utility Vans (Gas, Water, Electricity)

### All dimensions are in mm / inches

### Issue: 1717

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## ELECTRICAL SPECIFICATIONS

LTE			
Frequency	698-960/1710-2690	MHz	
Nominal Impedance	50	Ω	
VSWR	2.2	Max	
Average Efficiency(698-960M	1Hz) 72	%	
Average Efficiency(1710-269	0MHz) 68	%	
Peak Gain (698-960MHz)	4.4	dBi	
Peak Gain (1710-2690MHz)	5.4	dBi	
WIFI			
Frequency	2400-2500/4900-5900	MHz	
Nominal Impedance	50	Ω	
VSWR @2400-2500MHz	4	Max	
VSWR @4900-5900MHz	3	Max	
Average Efficiency(2400-250	0MHz) 46	%	
Average Efficiency(4900-590	0MHz) 64	%	
Peak Gain (2400-2500MHz)	4.5	dBi	
Peak Gain (4900-5900MHz)	6.7	dBi	
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## **ELECTRICAL SPECIFICATIONS**

GPS

Frequency	1561.098±2.046/ 1575.42±1.023	3/ 1602.5625	±4 MHz	
Nominal Impedance		50	Ω	
VSWR		2:1		
Gain (Radiating elem	ent)	1 dBio	: +/- 1 dB	
Gain (LNA gain) 30 d	B +/- 2 dB			
Polarization		RHCP	)	
Out of Band Rejectio	n			
		698 N	lHz >70 dB	
		960N	IHz >65 dB	
		1710N	IHz >60 dB	
		2170N	IHz >65 dB	
		2400MHz >65 dB		
Noise Figure		<2.4	dB	
Operating Voltage		3.3-5	Vdc±0.5V	
Current Consumption	ı	<11	mA	
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### PART NUMBER: GPSLPMB403

## **ELECTRICAL SPECIFICATIONS**

Cable and Connector type

ltem	GPSLPMB403 RF Cables	Text on Label	Cable Type	Cable Length	Connector
1	LTE-1	Cell - 1	LMR195	600mm [ 23.622" ]	TNC Male
2	WiFi	WiFi	LMR195		RP-TNC Male
3	GPS	GNSS	LMR100		SMA Male
4	LTE-2	Cell - 2	LMR195		RP-SMA Male

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### PART NUMBER: GPSLPMB403

## **MECHANICAL SPECIFICATIONS**

Plastic radome	SABIC PC943
Color	Black
Ingress Protection	IP67
Weight	310 g
Cable retention: Pull off	30N mini
Fixing system	3M VHB4959 (T=3mm)

## **ENVIRONMENTAL SPECIFICATIONS**

## Operating temperature

-40 ~ +85 ° C

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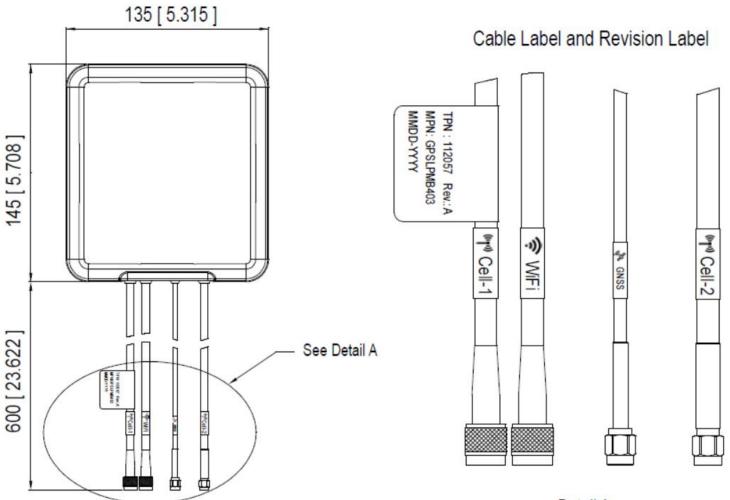


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# **Series: Low Profile MB**

## PART NUMBER: GPSLPMB403

## **MECHANICAL DRAWING**



Detail A

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2	WiFi	WiFi	LMR195	600mm	<b>RP-TNC Male</b>
3	GPS	GNSS	LMR100	[ 23.622" ]	SMA Male
4	LTE-2	Cell - 2	LMR195		<b>RP-SMA Male</b>

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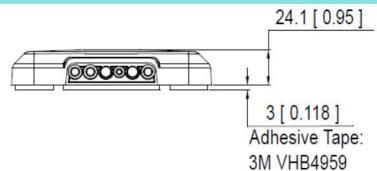


**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

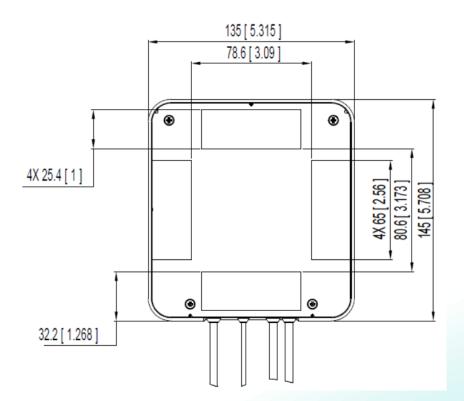
# Series: Low Profile MB

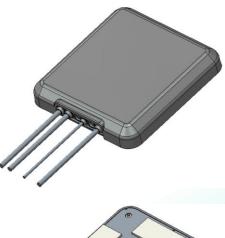
### PART NUMBER: GPSLPMB403

# MECHANICAL DRAWING



Adhesive Tape Placement







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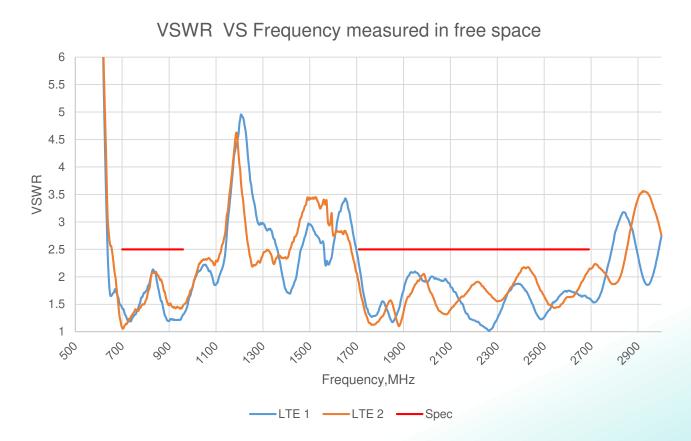
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

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### PART NUMBER: GPSLPMB403

### **CHARTS**

# LTE 1 and LTE2 VSWR



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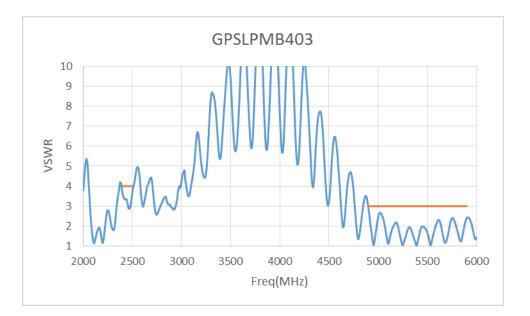
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

# Series: Low Profile MB

### PART NUMBER: GPSLPMB403

## **CHARTS**

# WiFi VSWR\*



### \* Test on bracket and diameter is 500mm ground plane

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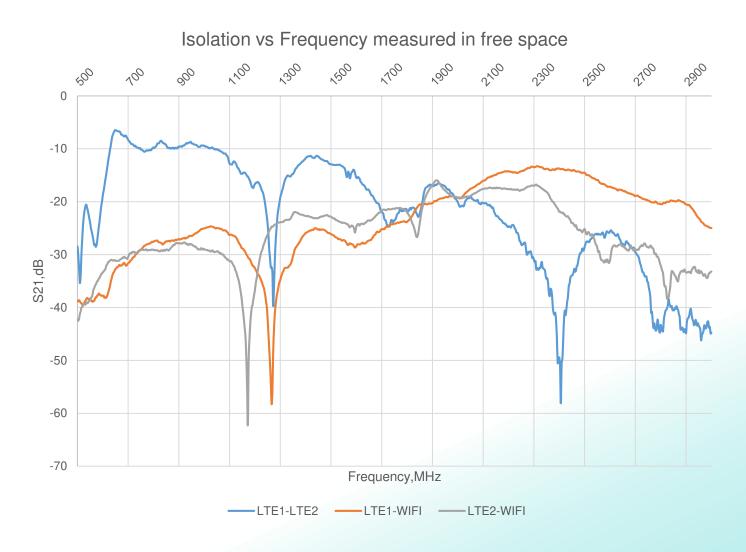
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

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## **CHARTS**

# Isolation



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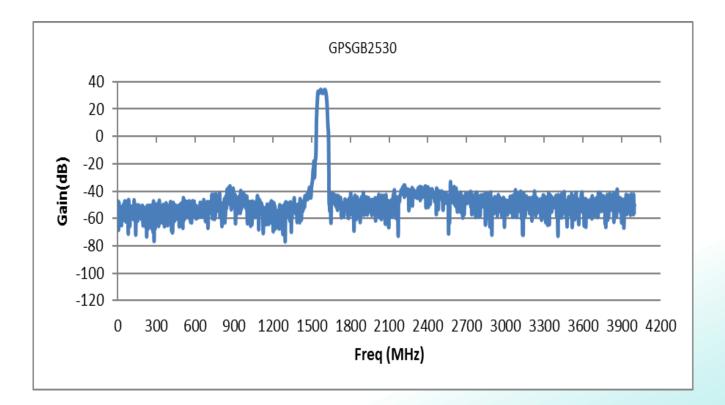
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

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**CHARTS** 

# GPS LNA Gain and out-of-band rejection



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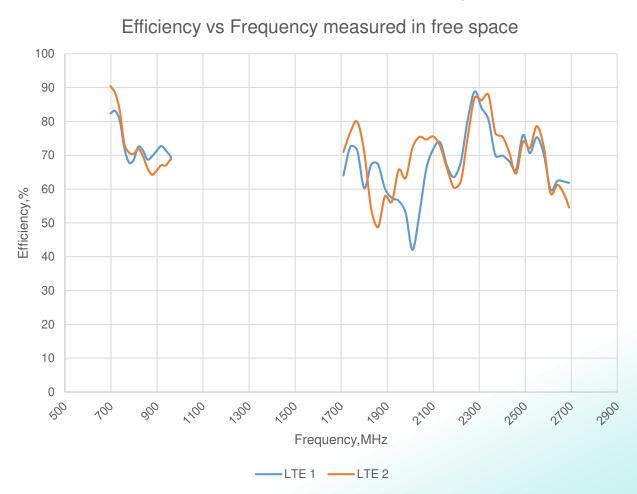
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

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### **CHARTS**

# LTE 1 and LTE2 Efficiency



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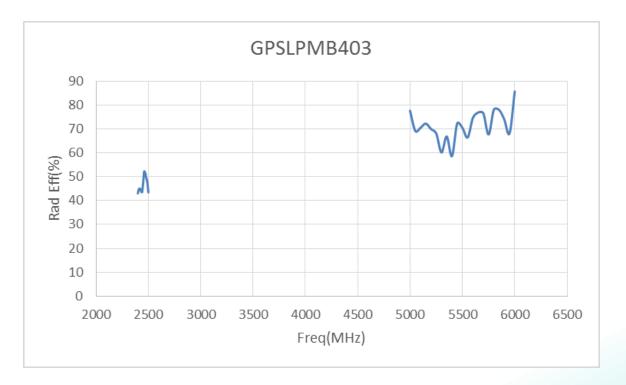
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

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## **CHARTS**

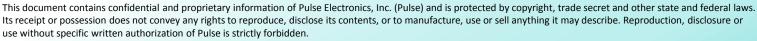
# WiFi Efficiency\*



### \* Test on bracket and diameter is 500mm ground plane

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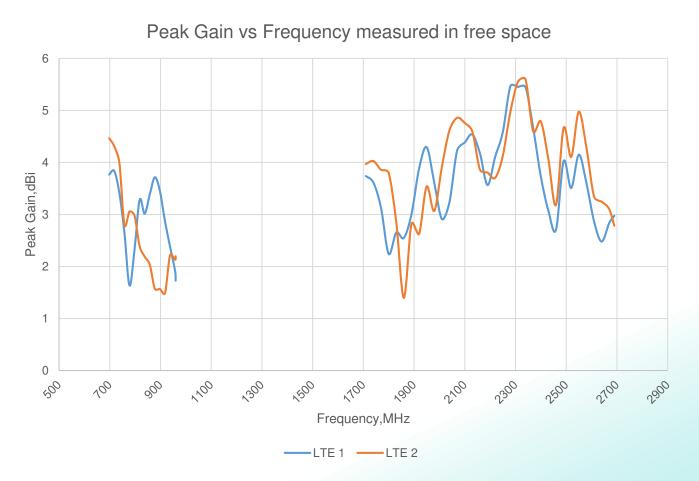
**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

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### **CHARTS**

# LTE1 and LTE2 Peak Gain



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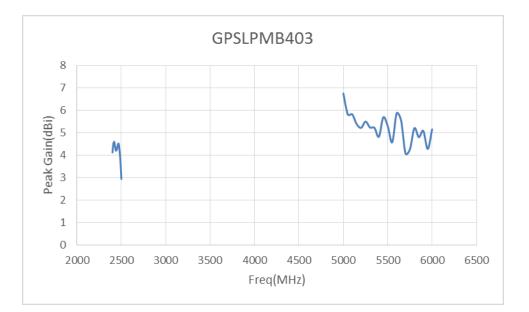
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## **CHARTS**

# WiFi Peak Gain\*



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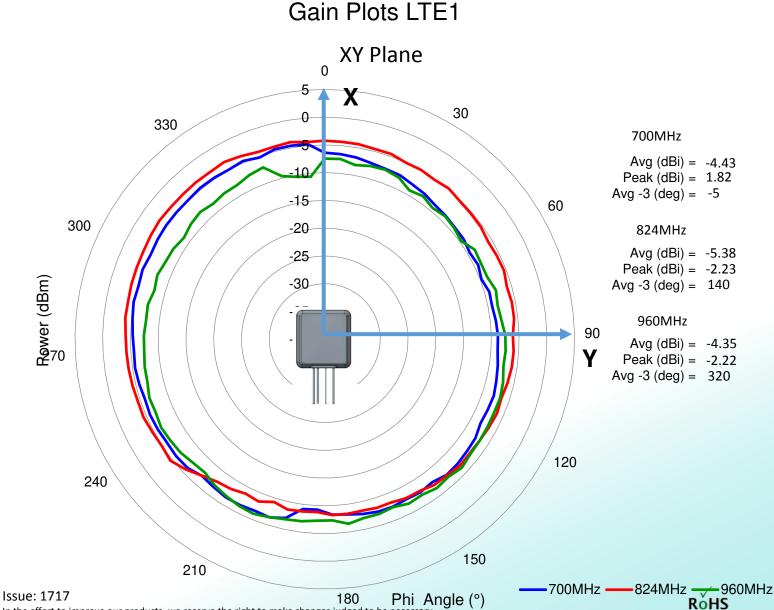


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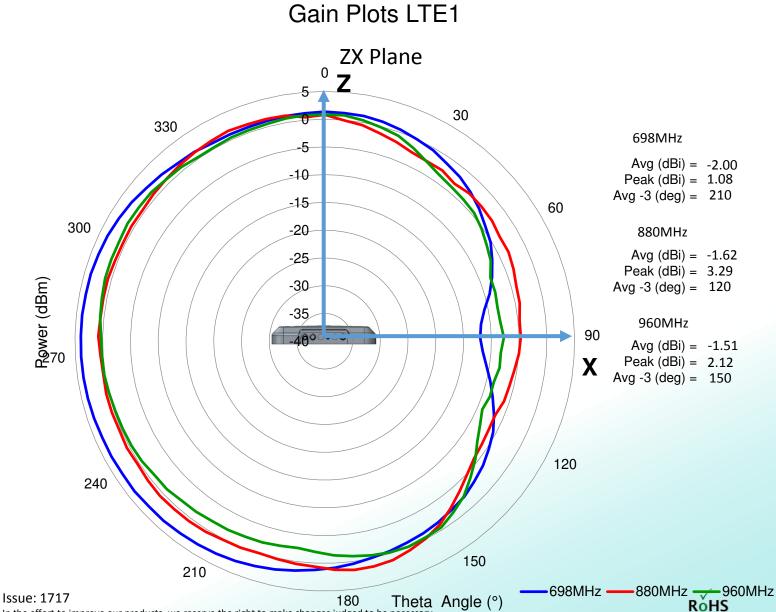


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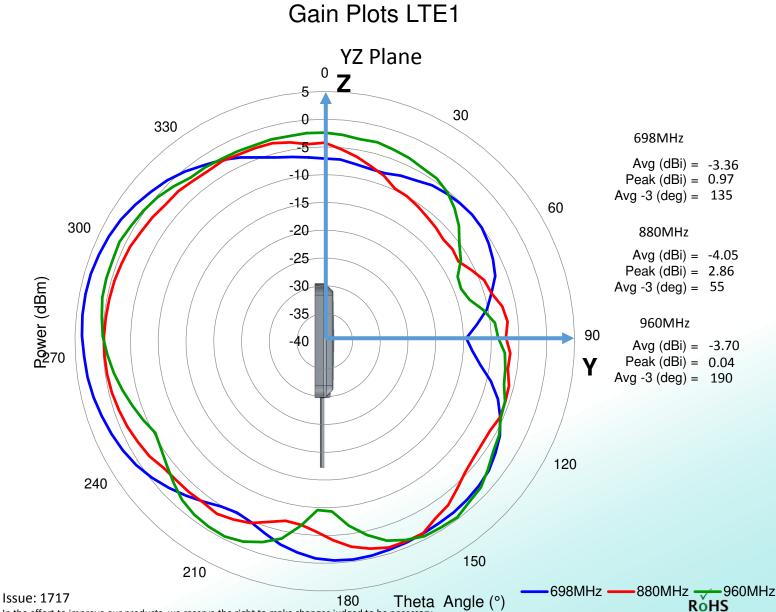


**Description**: 2xLTE, WiFi, GNSS Multiband Vehicular Antenna

# Series: Low Profile MB

### PART NUMBER: GPSLPMB403

### CHARTS



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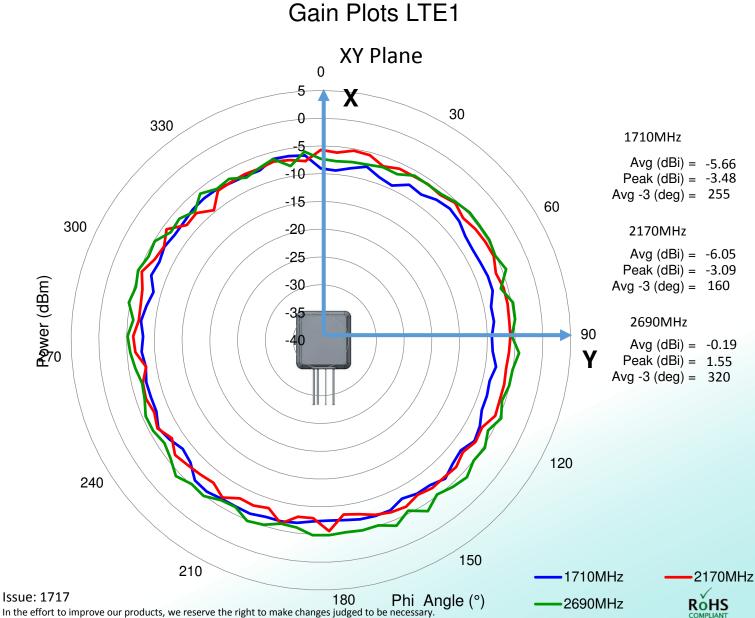


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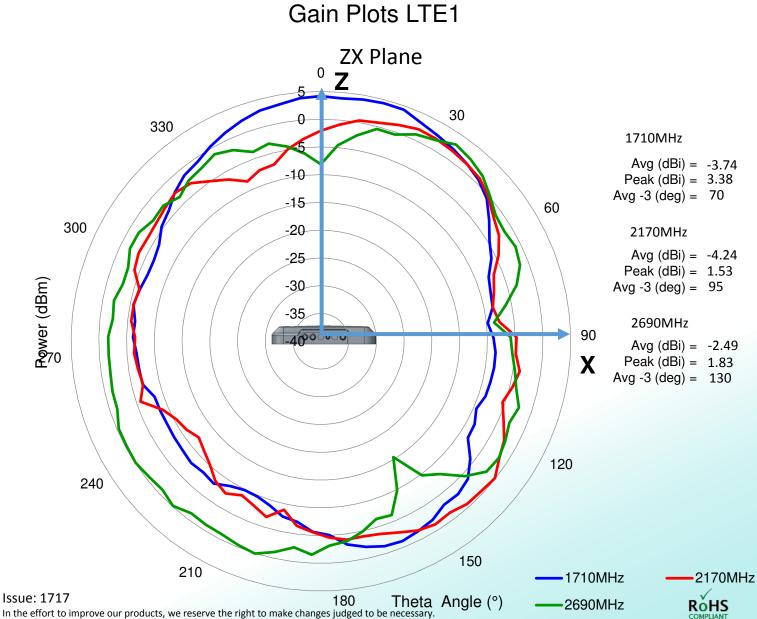


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Europe Headquarters Pulse GmbH & Do, KG Zeppelinstrasse 15 Herrenberg, Germany Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc. 99 Huo Ju Road(#29 Bldg,4th Phase Suzhou New District Jiangsu Province, Suzhou 215009 PR China Tel: 86 512 6807 9998

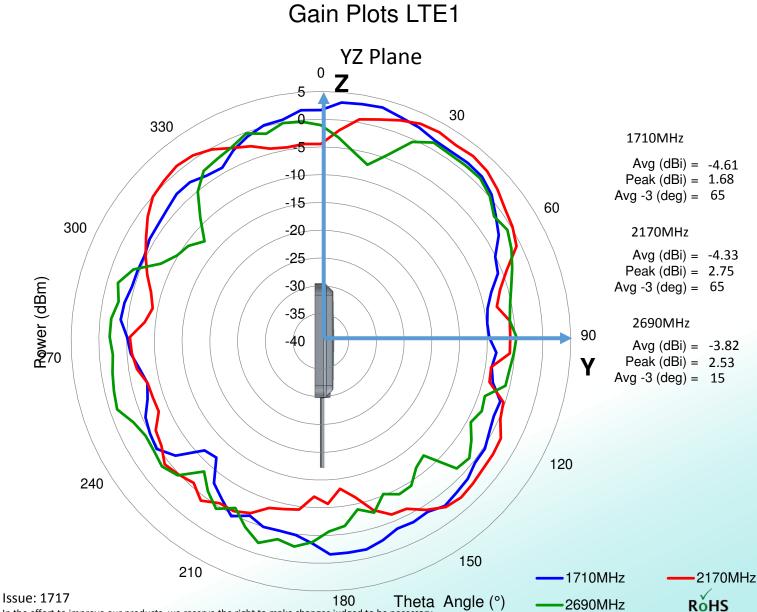


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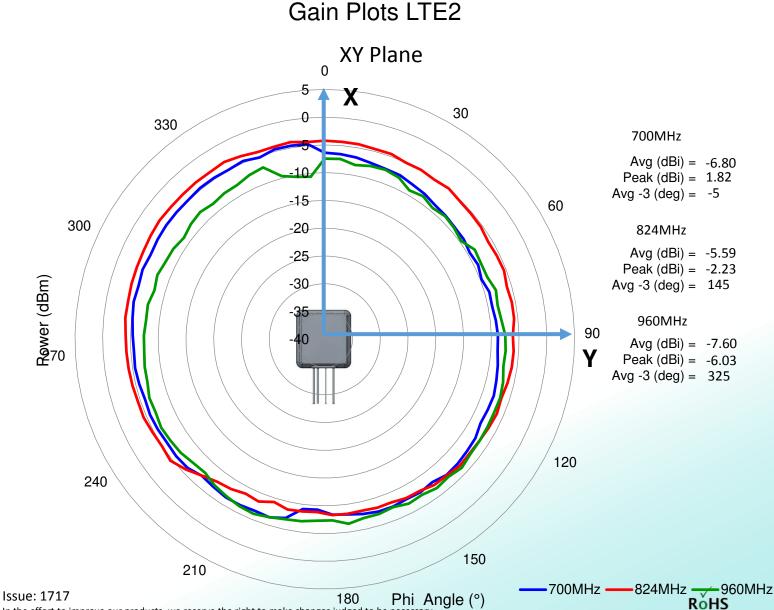


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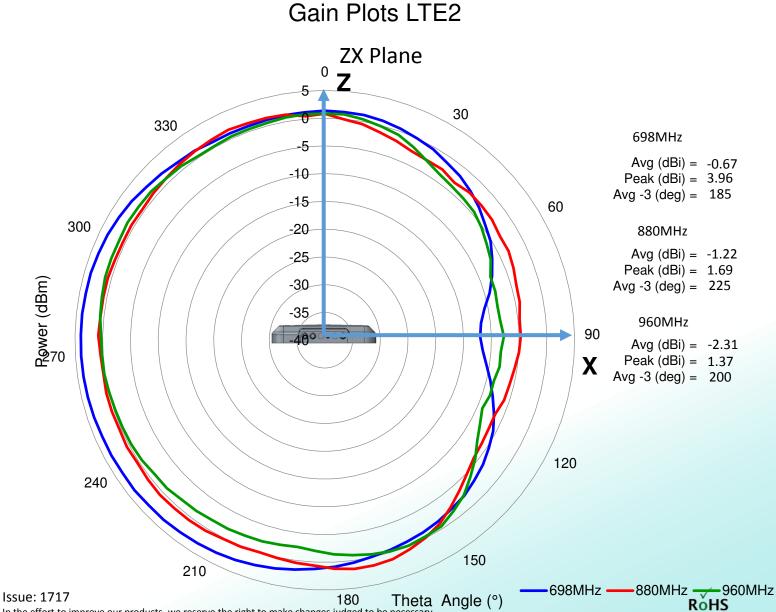


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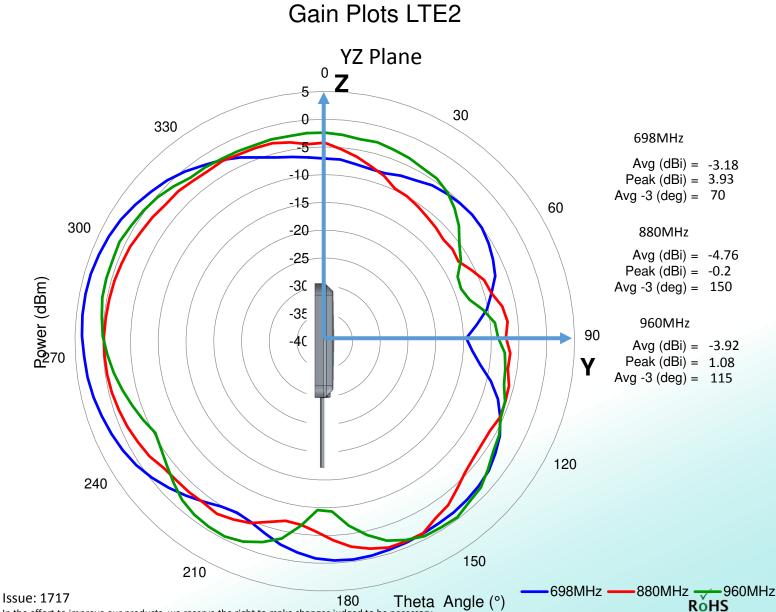


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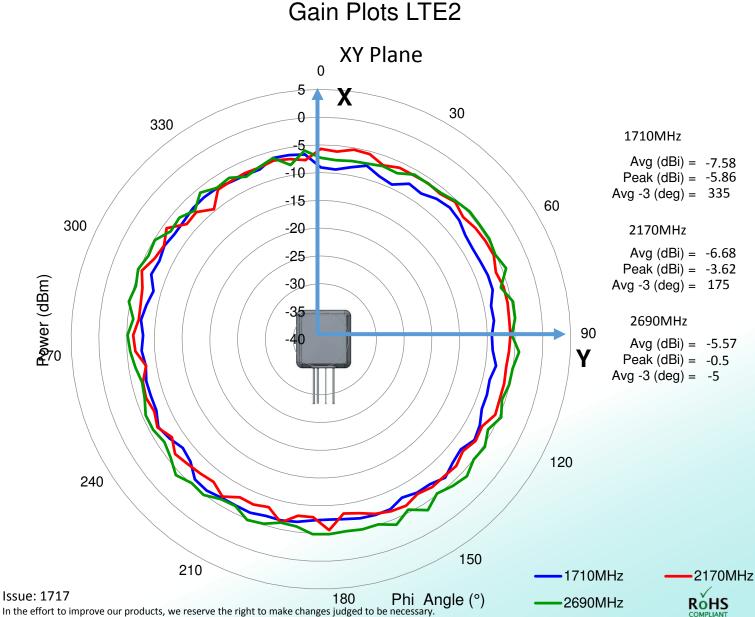


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