

**Description:** LTE Primary + GNSS FPC Antenna

**Series:** Gemini

**PART NUMBER:** W3906B0100

### Features:

- 2G / 3G / 4G Primary Ant for MiMo
- 698-3600MHz
- Used as pair for W3907B0100
- Global LTE Bands:
  - B1-B23, B25-B29, B33-B42
  - N.A.; Europe, Asia (incl. Jap.)
- GNSS (GPS, Galileo, Glonass)
- Foldable for tight spaces

### Applications:

- Challenging RF Environments Demanding:
  - Highest Peak Gain
  - Lowest ECC (Envelope Correlation Coeff.).
- Matched to Radio Modules from:
  - Sierra Wireless, Telit, Huawei, Gemalto, uBlox, ZTE, and others.
- Security, Video, Graphics
- IoT, SmartGrid, Meters, Remote Monitoring, Sensor Networks
- Transportation, Tracking



All dimensions are in mm / inches

Issue: 2029

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For more information:

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Tel: 1-858-674-8100

Pulse/Larsen Antennas  
18110 SE 34<sup>th</sup> St Bldg 2 Suite 250  
Vancouver, WA 98683  
USA  
Tel: 1-360-944-7551

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

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



**Description:** LTE Primary + GNSS FPC Antenna**Series:** Gemini**PART NUMBER:** W3906B0100**ELECTRICAL SPECIFICATIONS**

LTE :

Frequency	698-960/1427.9-1510.9/1559-1610/ 1695-2200/2300-2700/3400-3600 MHz
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Nominal Impedance	50Ω
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Return loss(698-960MHz)	-6dB
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Return loss(1427.9-1510.9/1559-1610/ 1695-2200/2300-2700/3400-3600MHz)	-7.5dB
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Isolation	-10dB
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Average Total Efficiency (698-960MHz)	54%
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Average Total Efficiency (1427.9-1510.9MHz)	59%
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Average Total Efficiency (1559-1610MHz)	59%
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Average Total Efficiency (1695-2200MHz)	64%
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Average Total Efficiency (2300-2700MHz)	69%
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Average Total Efficiency (3400-3600MHz)	64%
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Peak Gain (698-960MHz)	2.7dBi
Peak Gain (1427.9-1510.9MHz)	1.5dBi
Peak Gain (1559-1610MHz)	1.6dBi
Peak Gain (1695-2200MHz)	3.2dBi
Peak Gain (2300-2700MHz)	3.6dBi
Peak Gain (3400-3600MHz)	4.0dBi

GNSS :

Frequency	1570-1610MHz
Nominal Impedance	50Ω
Return loss (1570-1610MHz)	-10dB
Average Total Efficiency (1570-1610MHz)	35%
Peak Gain (1570-1610MHz)	0.8dBi
Radiation Pattern	Omni
Polarization	Linear
Power withstanding	3W

(\*) All RF parameters measured on 2mm thick PC plate

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### MECHANICAL SPECIFICATIONS

Overall Length	120.4x26.8mm
Weight	2.0g
Antenna Color / Material	BLACK FPC
Cable type	AWG#32 1.13MM
Connector type	I-PEX MHF 20278-112R-13 or compatible
Cable length (LTE)	93mm
Cable length (GPS)	93mm

### ENVIRONMENTAL SPECIFICATIONS

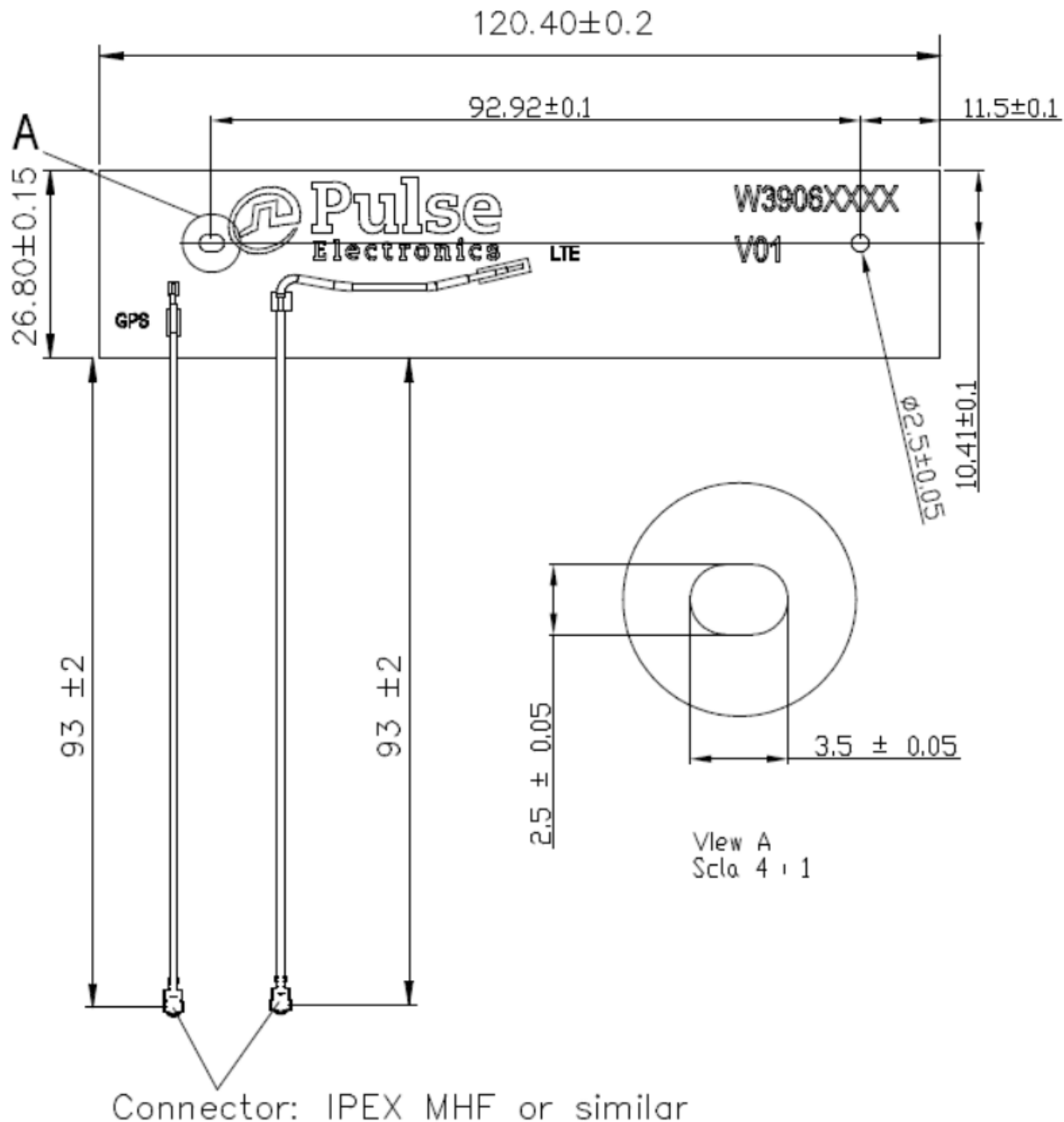
Operating Temperature	-40~+85° C
Storage Temperature	-40~+85° C
RoHS Compliant	Yes

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**MECHANICAL DRAWING**



**Unit:** MM

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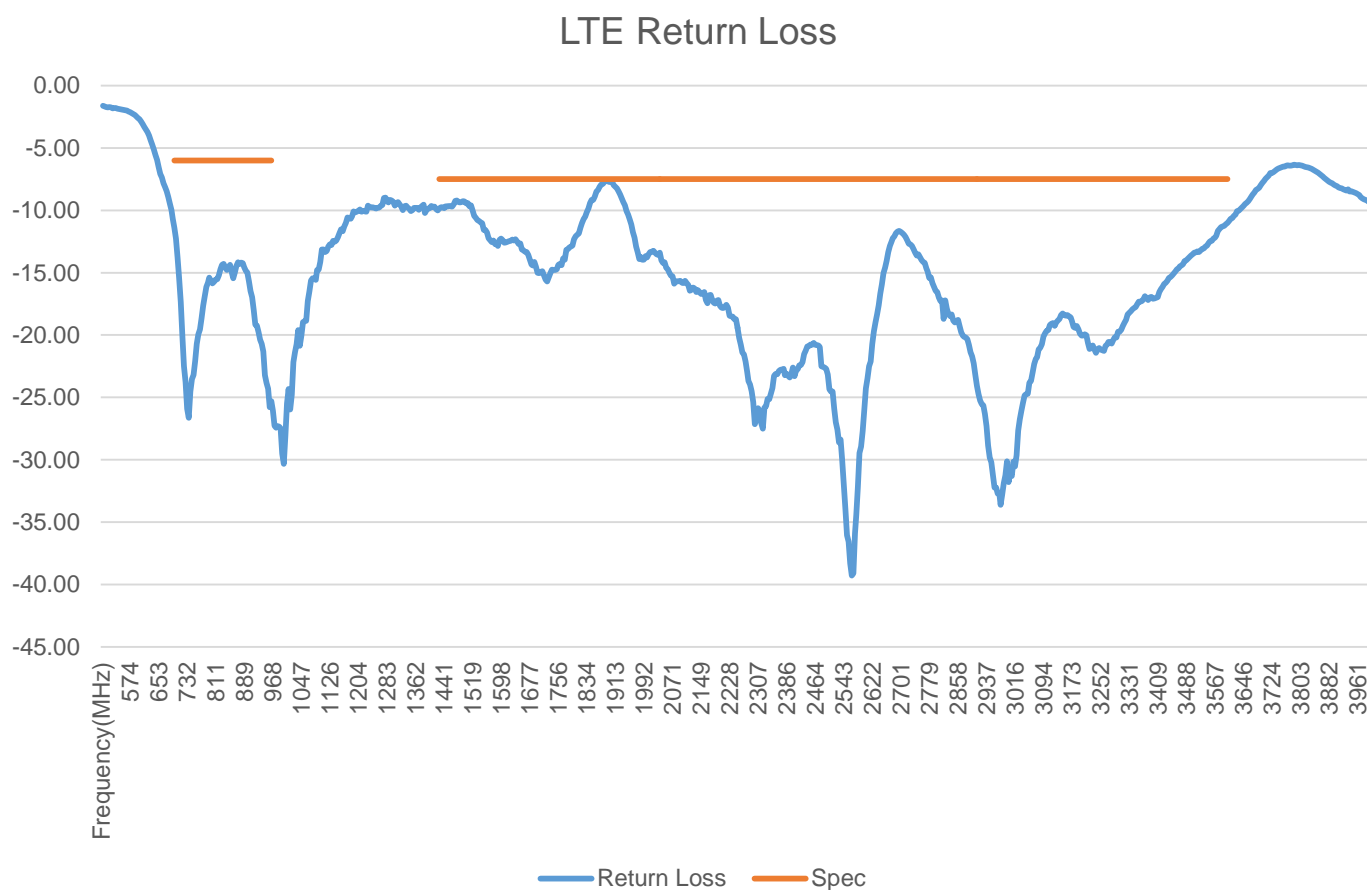
**Description:** LTE Primary + GNSS FPC Antenna

**Series:** Gemini

**PART NUMBER:** W3906B0100

## CHARTS

### Return Loss



Issue: 2029

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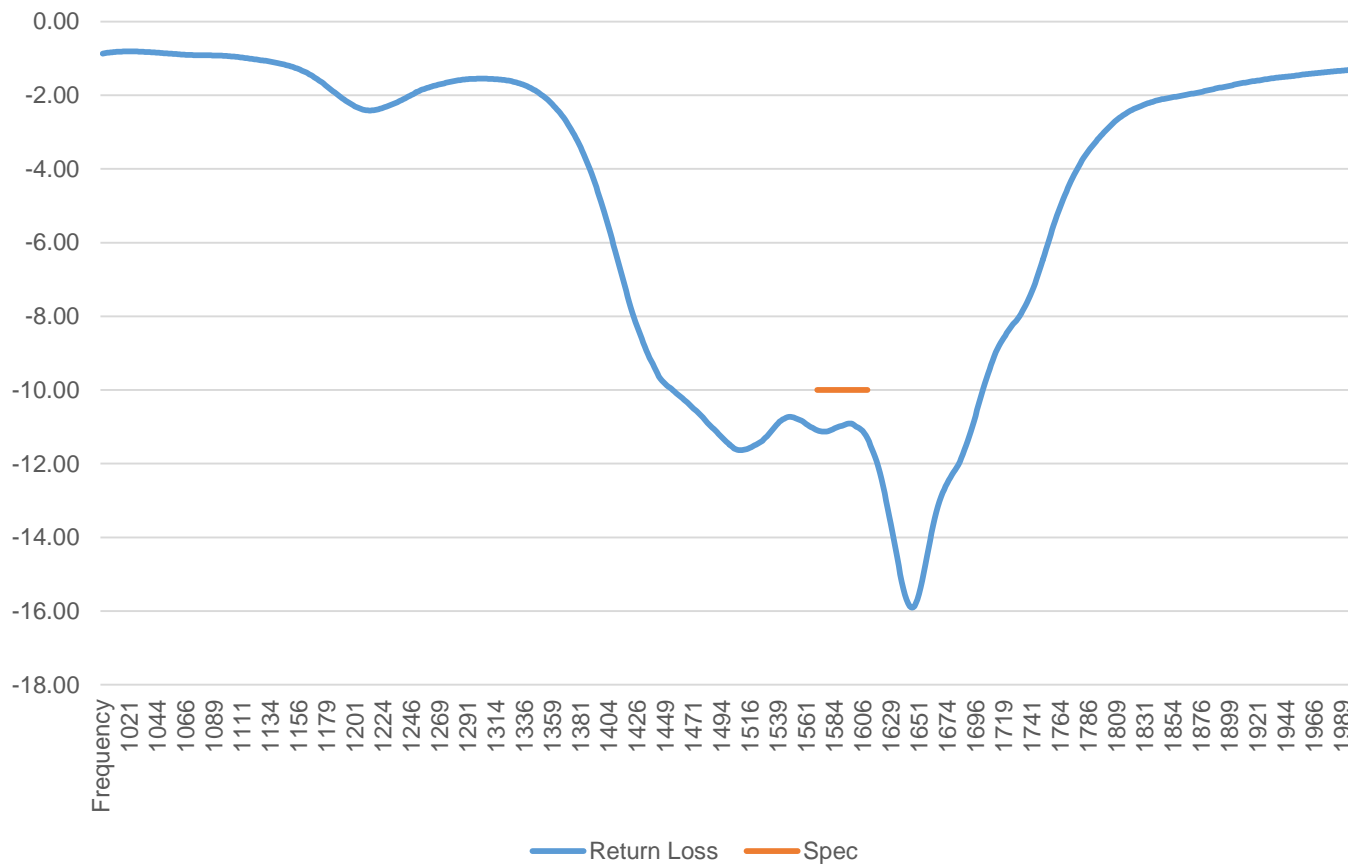
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**PART NUMBER:** W3906B0100

## CHARTS

### Return Loss

#### GNSS Return Loss



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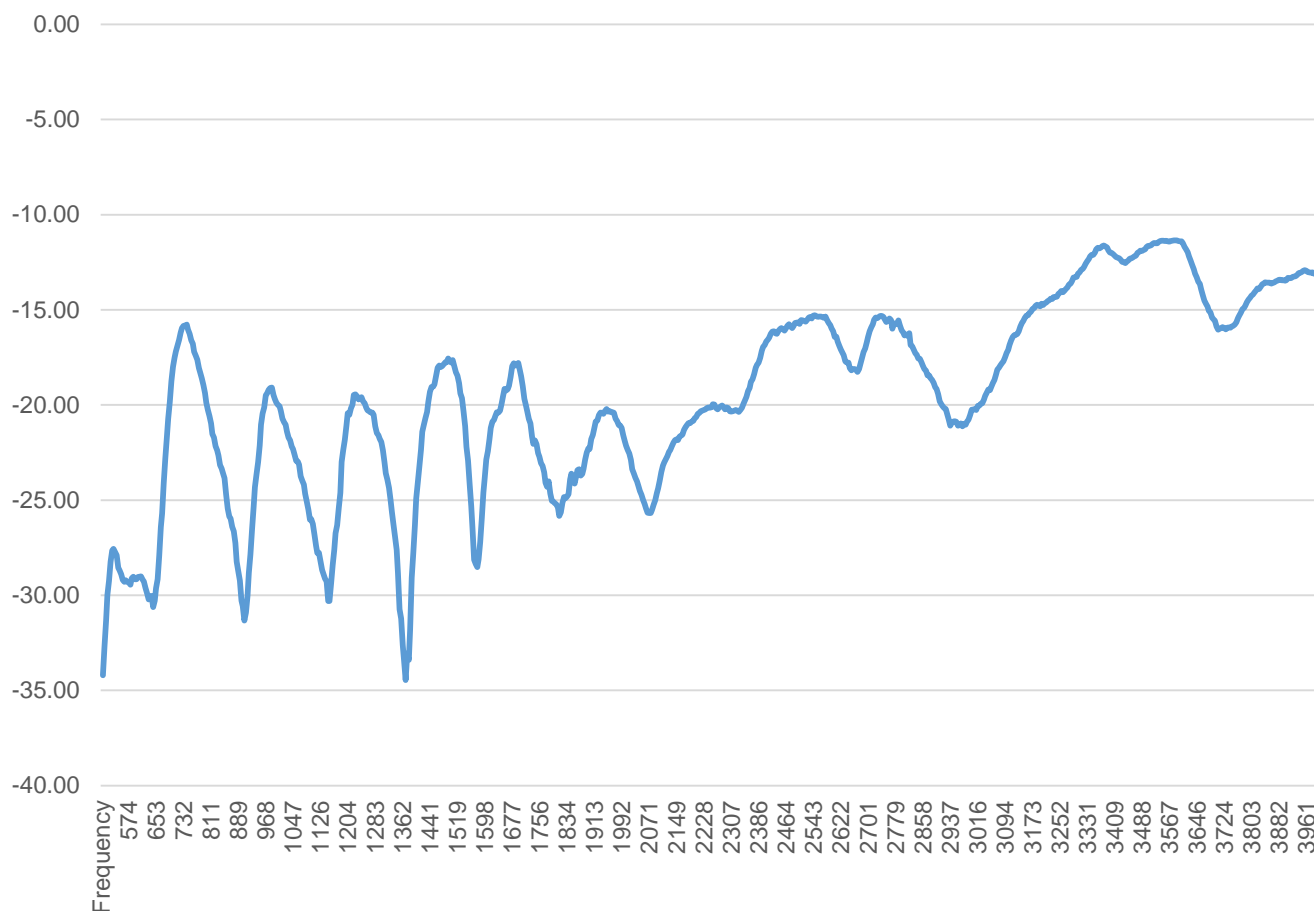
**Series:** Gemini

**PART NUMBER:** W3906B0100

## CHARTS

### Isolation

LTE & GNSS Isolation



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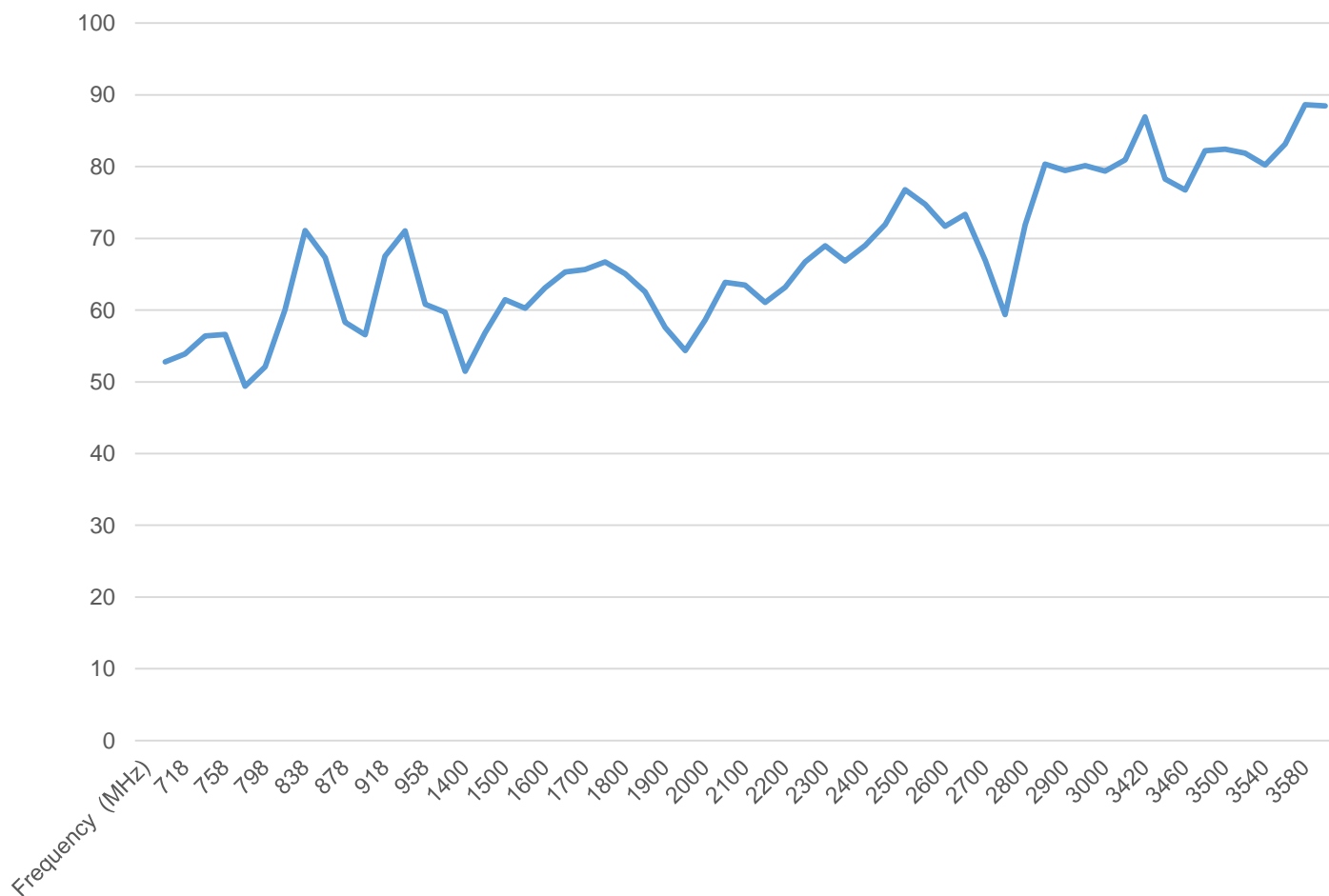
**Series:** Gemini

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## CHARTS

### Efficiency(%)

#### LTE Efficiency(%)



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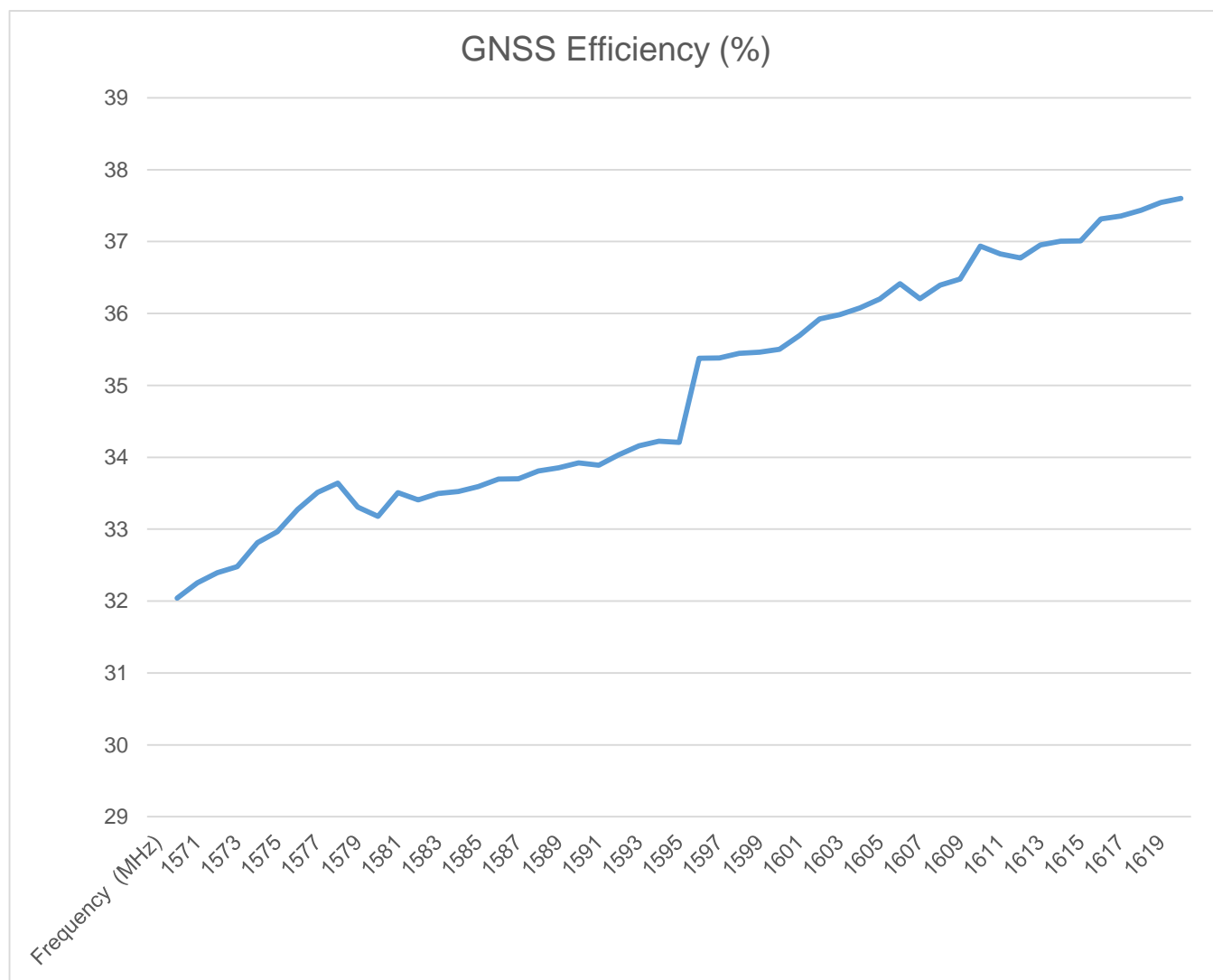
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## CHARTS

### Efficiency(%)



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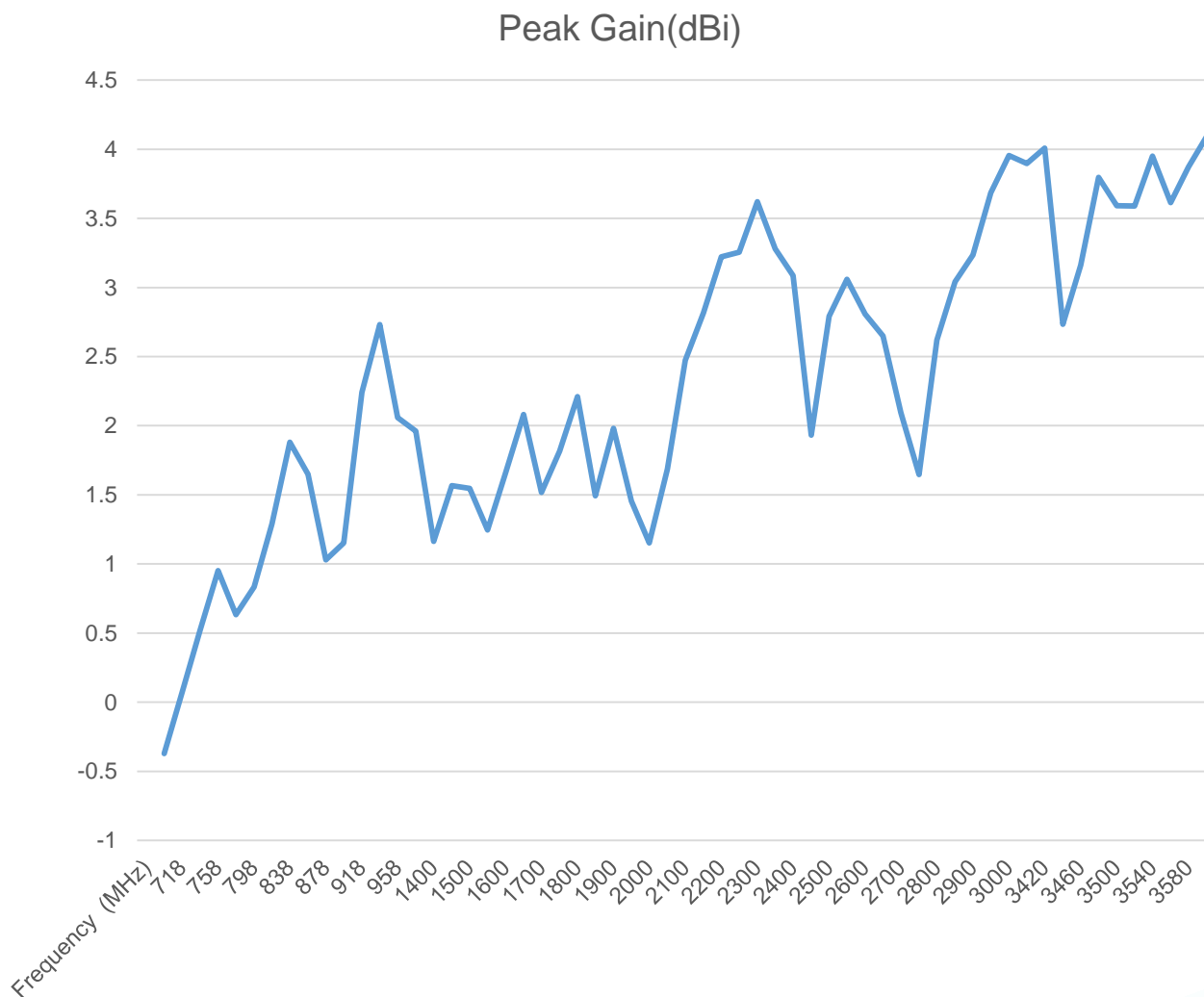
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## CHARTS

### Peak Gain(dBi)



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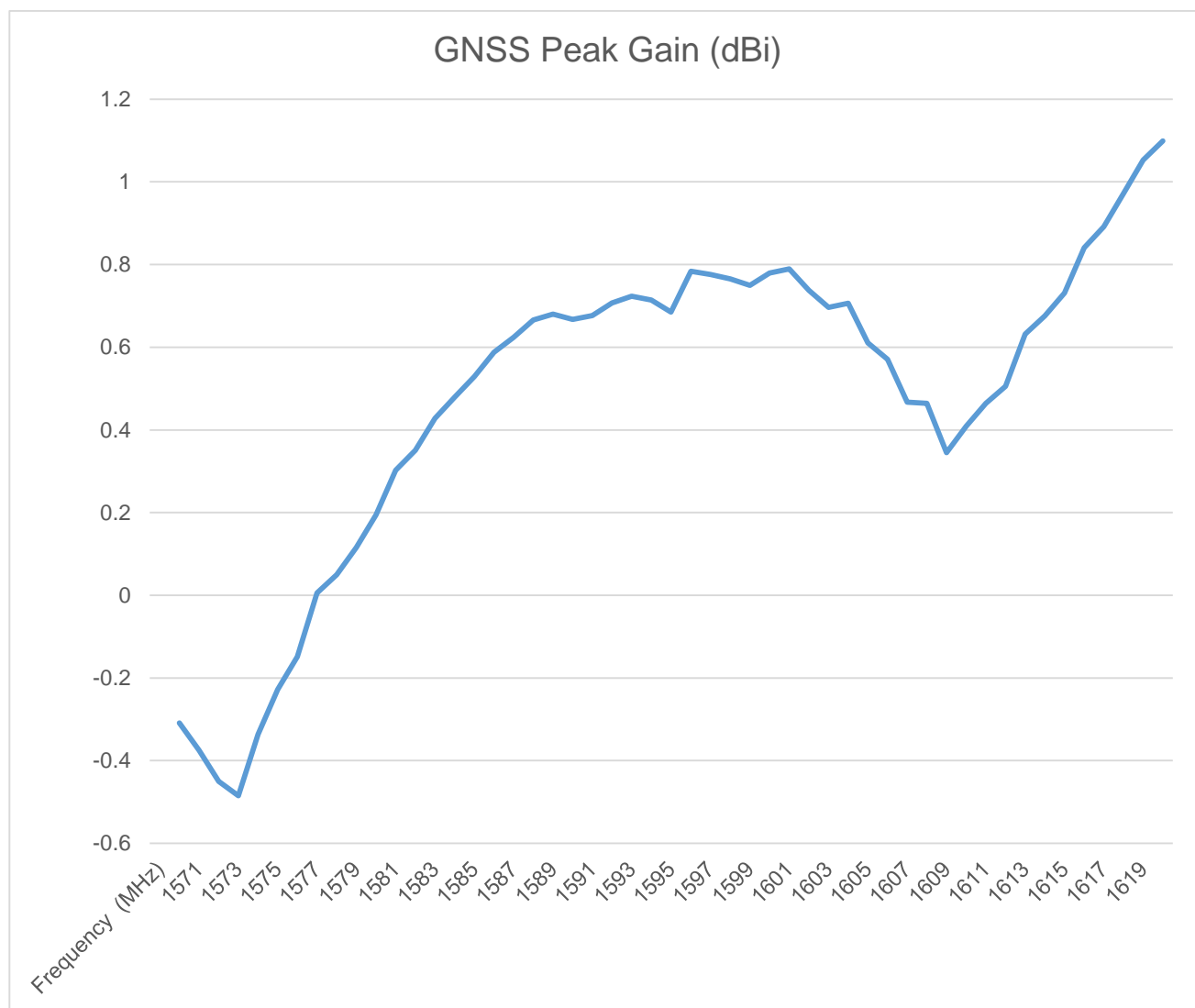
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## CHARTS

### Peak Gain(dBi)



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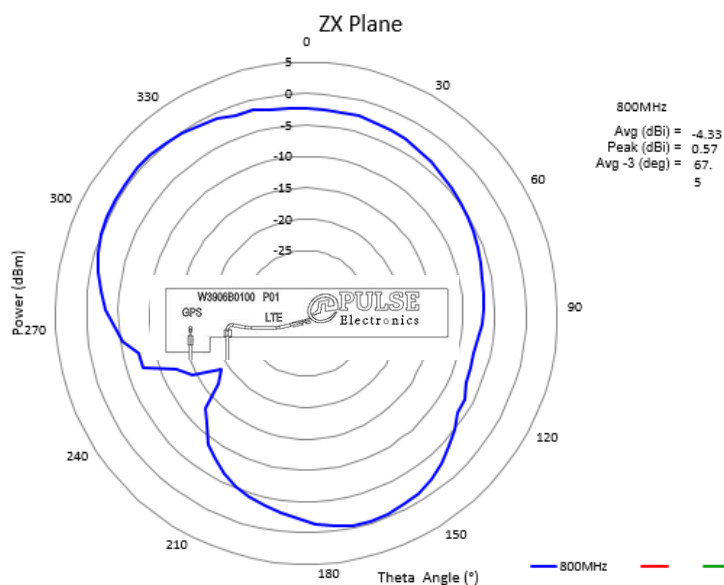
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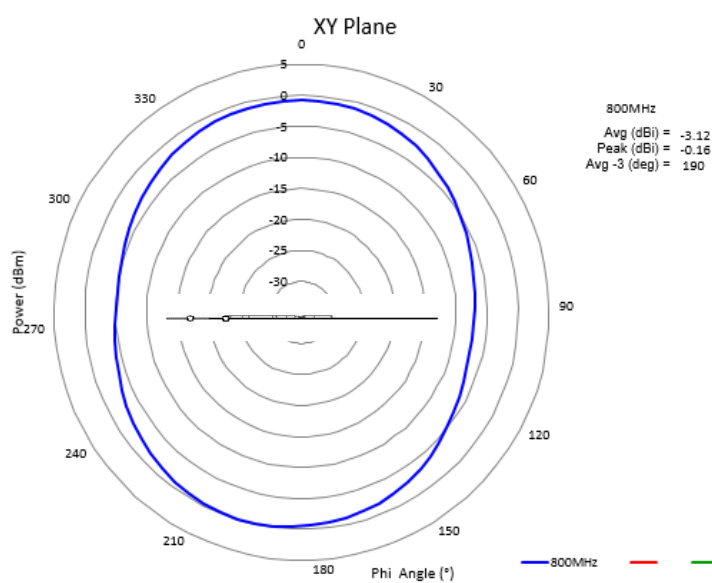
## CHARTS

LTE radiation pattern  
698-960MHz  
(800MHz)

### Elevation Plane



### Horizontal Plane



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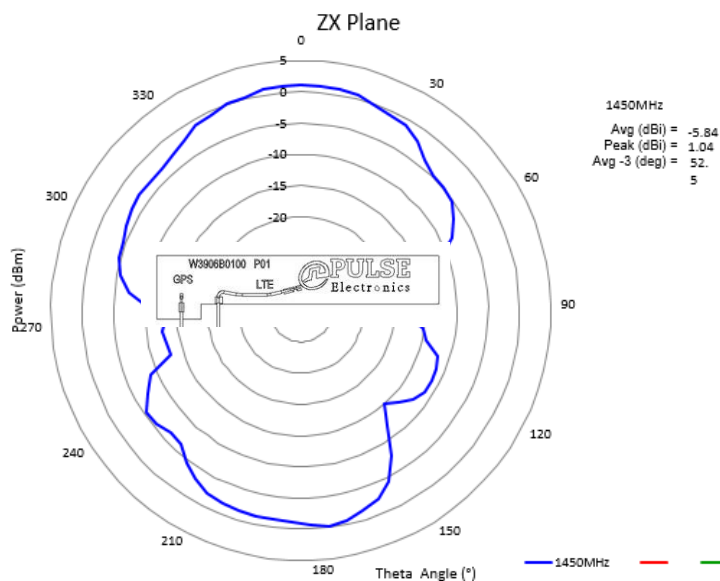
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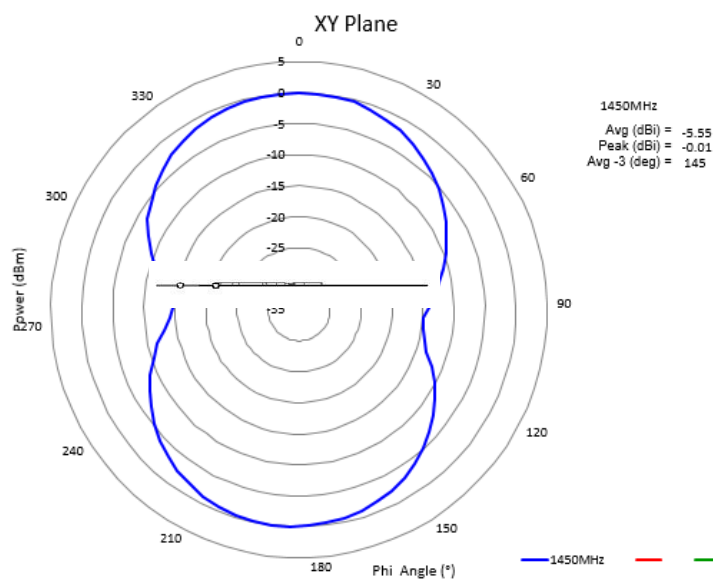
## CHARTS

LTE radiation pattern  
1427.9-1510.9MHz  
(1450MHz)

### Elevation Plane



### Horizontal Plane



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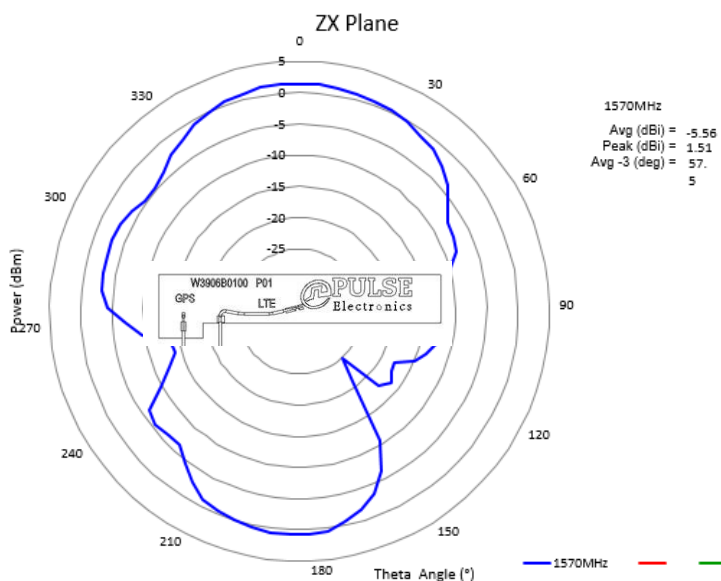
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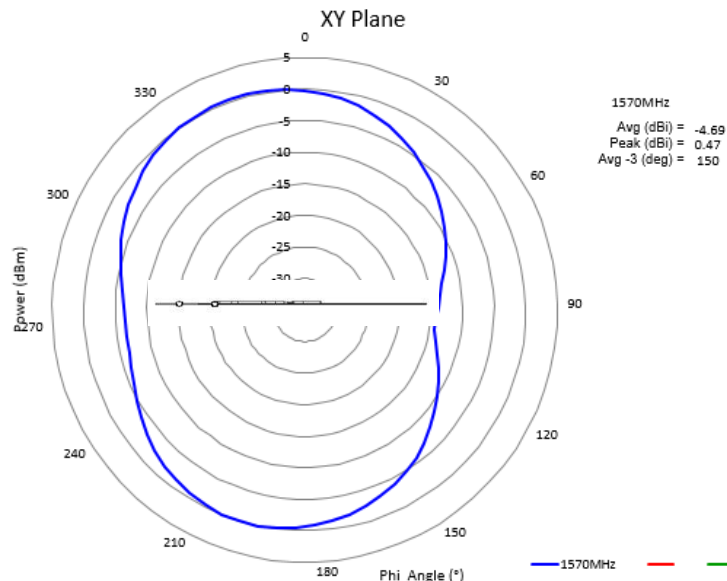
## CHARTS

LTE radiation pattern  
1559-1610MHz  
(1570MHz)

### Elevation Plane



### Horizontal Plane



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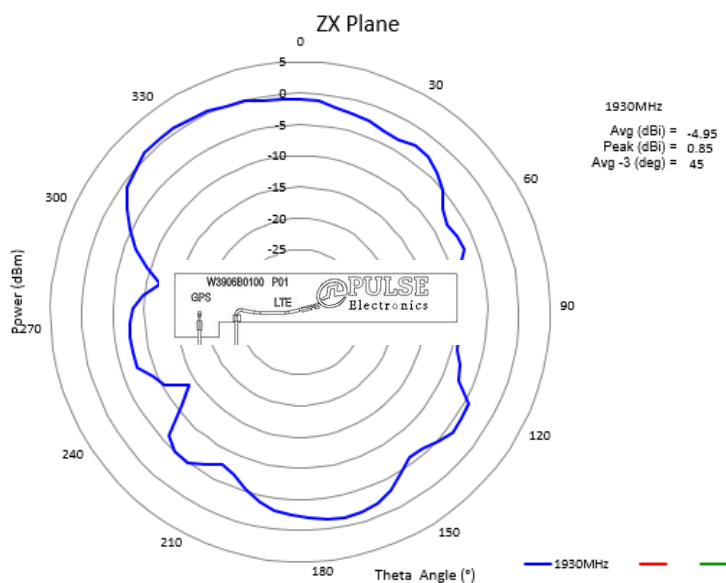
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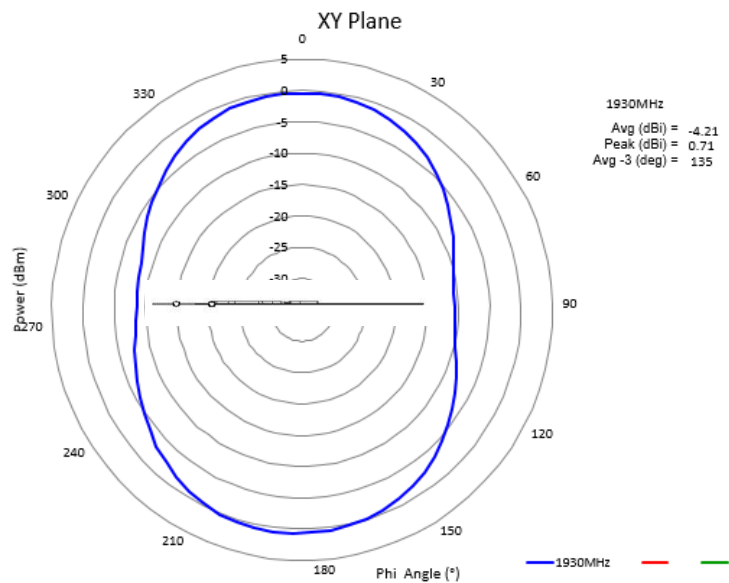
## CHARTS

LTE radiation pattern  
1695-2200MHz  
(1930MHz)

### Elevation Plane



### Horizontal Plane



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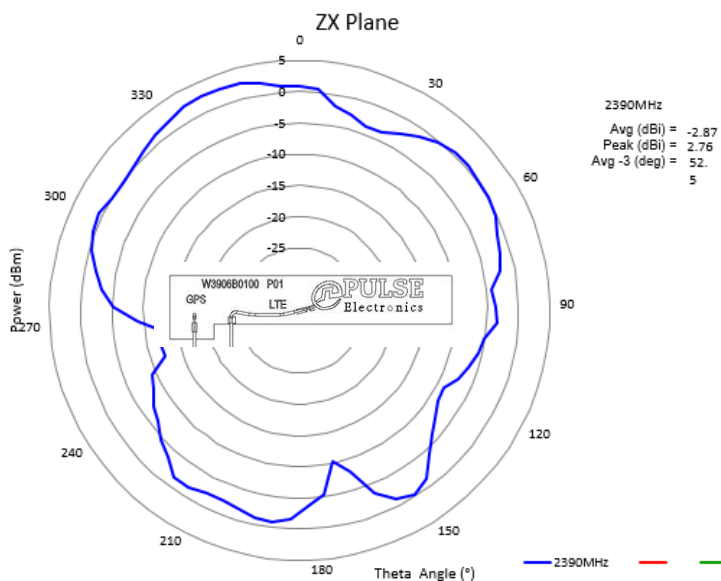
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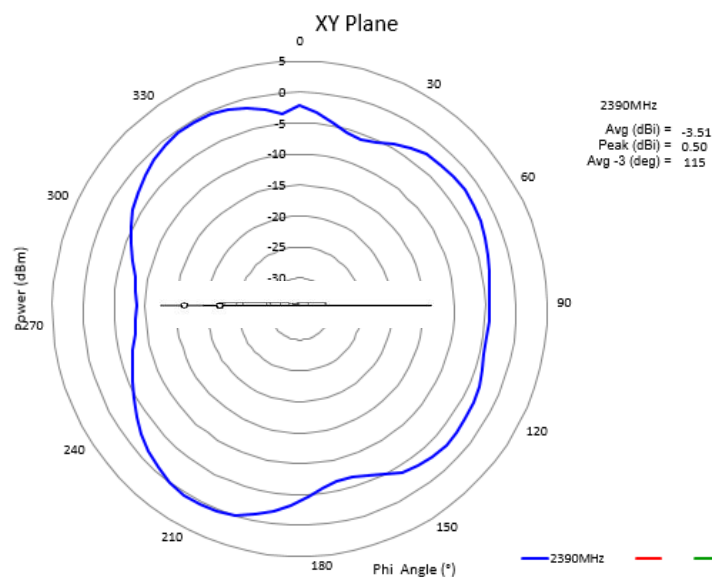
## CHARTS

LTE radiation pattern  
2300-2700MHz  
(2390MHz)

### Elevation Plane



### Horizontal Plane



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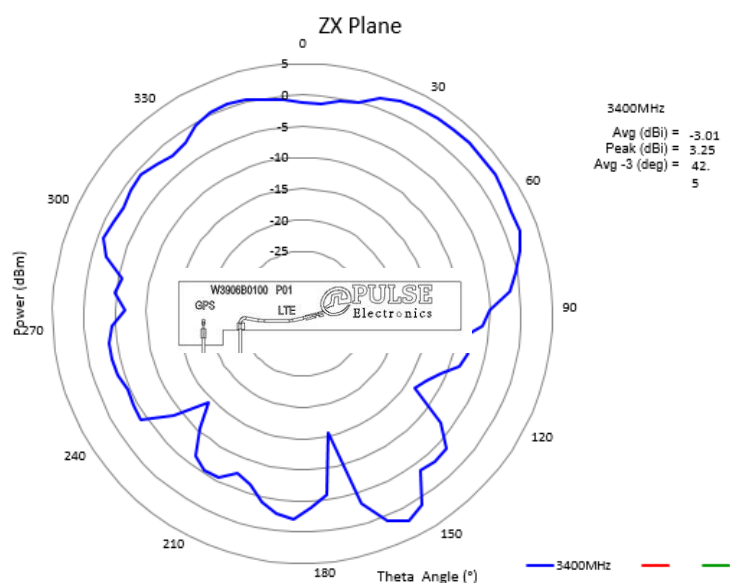
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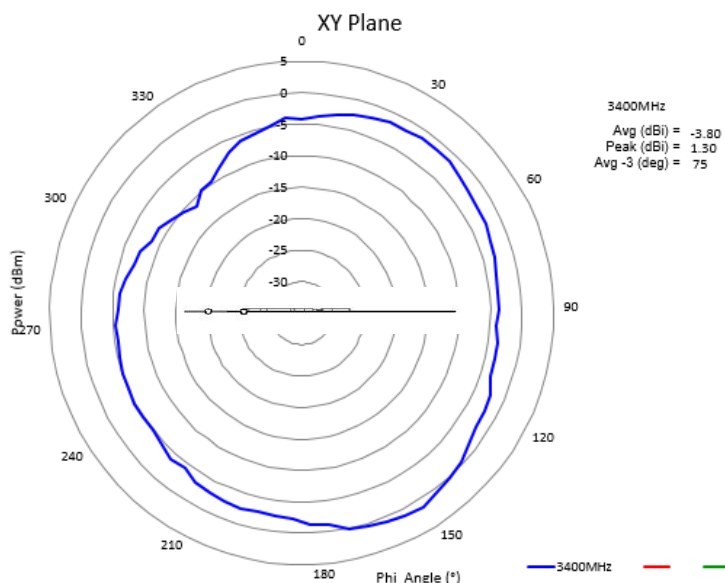
## CHARTS

LTE radiation pattern  
3400-3600MHz  
(3400MHz)

### Elevation Plane



### Horizontal Plane



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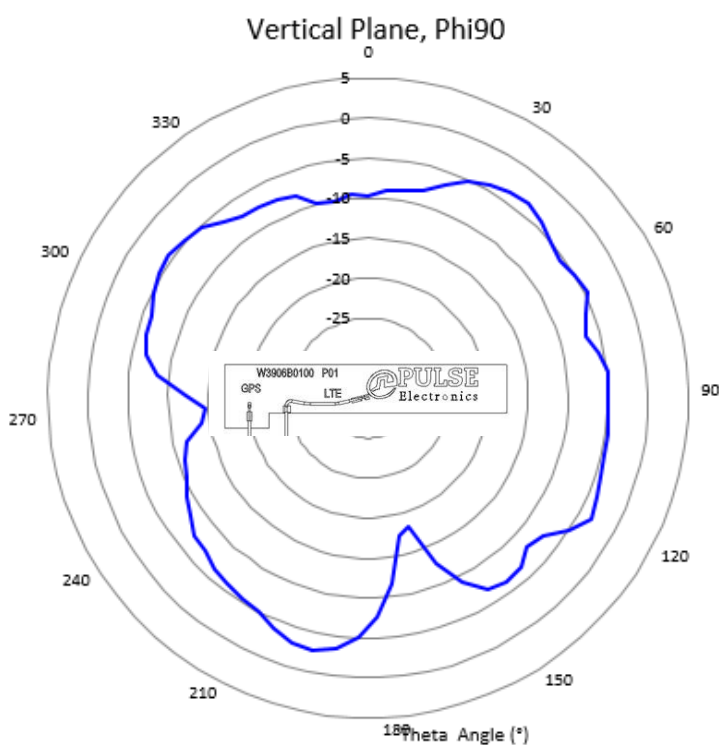
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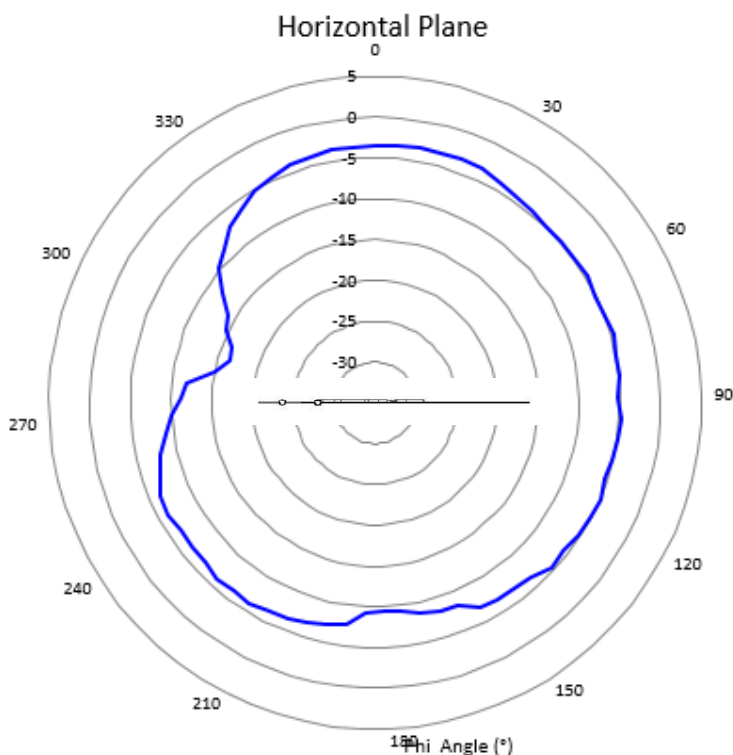
## CHARTS

GNSS radiation pattern  
1570-1610MHz  
(1575MHz)

Elevation Plane



Horizontal Plane



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## PACKAGING

5pcs antenna per PE bag

400pcs PE bags per form bag

2pcs form bag per package box

Total 4000pcs per package box

Package box: 460mm\*235mm\*140mm

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