

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

**PART NUMBER: W3906B0100** 

**Series: Gemini** 



## **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

In the effort to improve our products, we reserve the right to make changes judged to be necessary. CONFIDENTIAL AND PROPRIETARY INFORMATION

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Pulse Worldwide Headquarters 15255 Innovation Drive #100 San Diego, CA 92128 USA 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 & Do, 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



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### **ELECTRICAL SPECIFICATIONS**

LTE:

Frequency 698-960/1427.9-1510.9/1559-1610/

1695-2200/2300-2700/3400-3600 MHz

Nominal Impedance  $50\Omega$ 

Return loss(698-960MHz) -6dB

Return loss(1427.9-1510.9/1559-1610/

1695-2200/2300-2700/3400-3600MHz) -7.5dB

Isolation -10dB

Average Total Efficiency (698-960MHz) 54%

Average Total Efficiency (1427.9-1510.9MHz) 59%

Average Total Efficiency (1559-1610MHz) 59%

Average Total Efficiency (1695-2200MHz) 64%

Average Total Efficiency (2300-2700MHz) 69%

Average Total Efficiency (3400-3600MHz) 64%

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## **ELECTRICAL SPECIFICATIONS**

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	$50\Omega$
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  $-40^{+}85^{\circ}$  C Storage Temperature  $-40^{+}85^{\circ}$  C

RoHS Compliant Yes



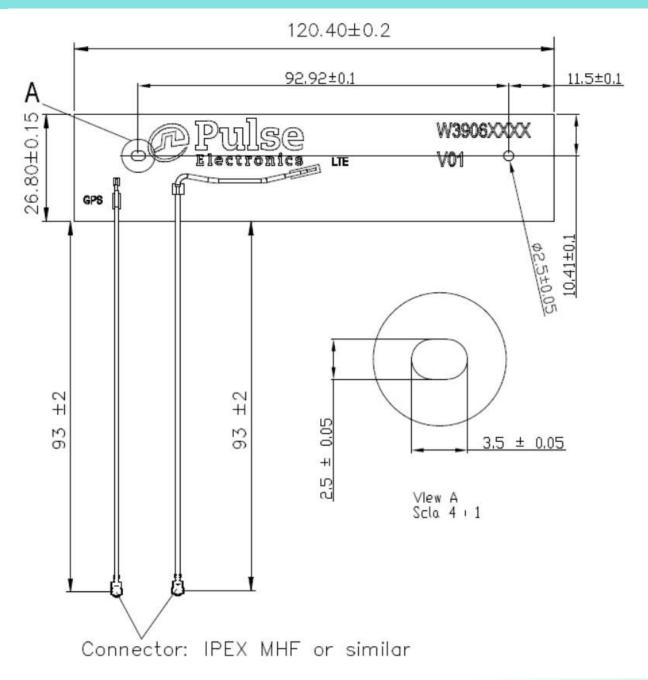


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## **MECHANICAL DRAWING**



Unit: MM







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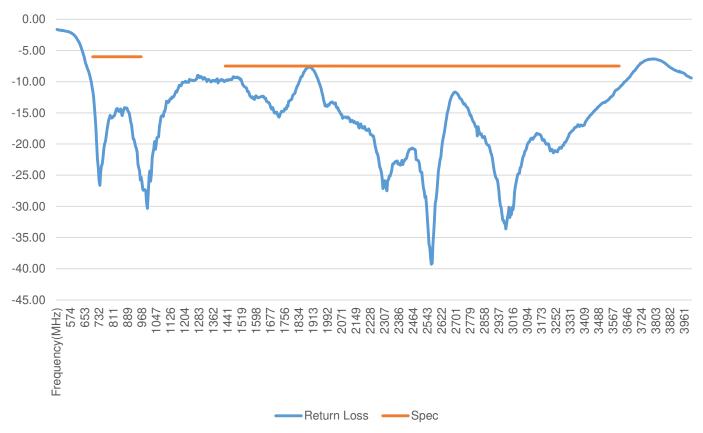
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## **CHARTS**

## Return Loss

## LTE Return Loss









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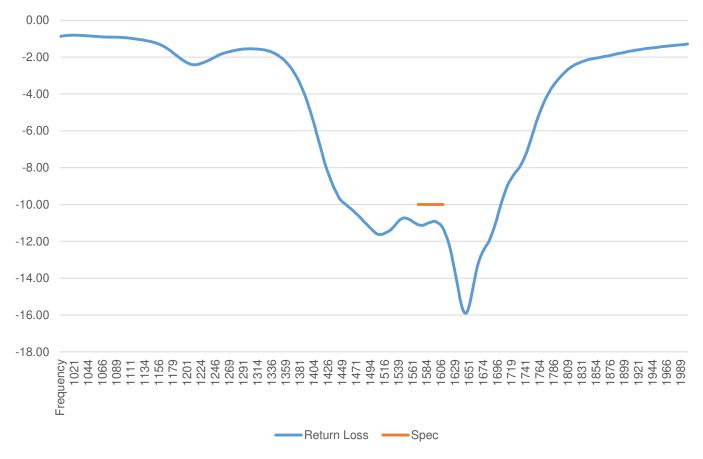
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## **CHARTS**

## Return Loss

### **GNSS Return Loss**









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

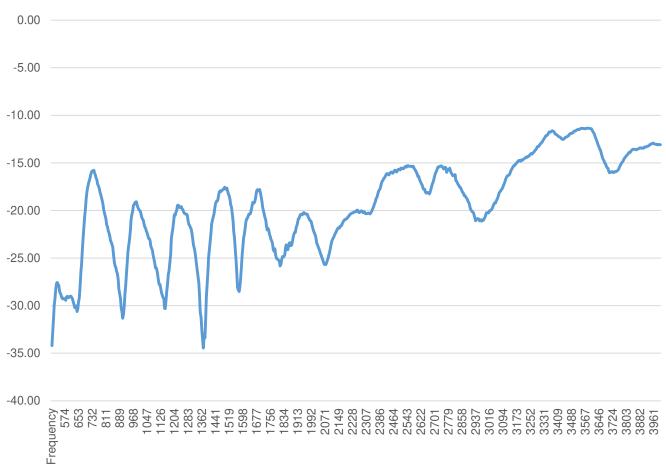
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## **CHARTS**

## Isolation

### LTE & GNSS Isolation









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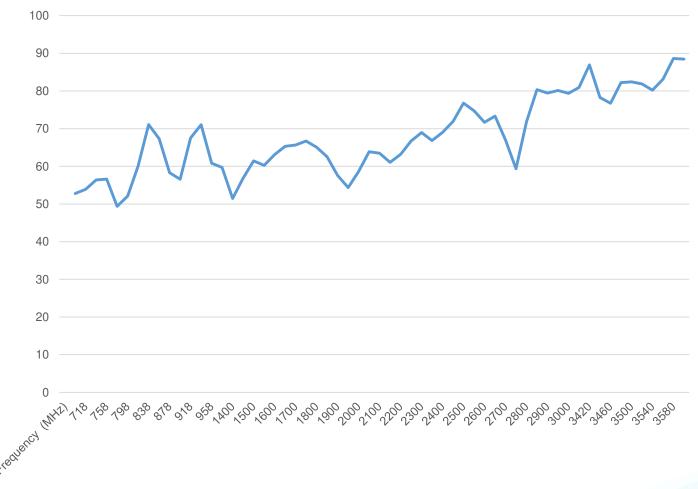
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## **CHARTS**

# Efficiency(%)





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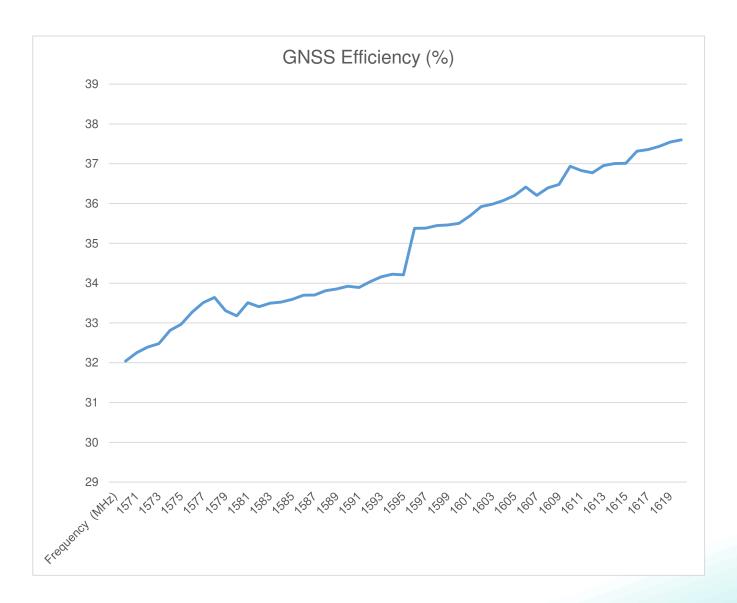
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## **CHARTS**

# Efficiency(%)







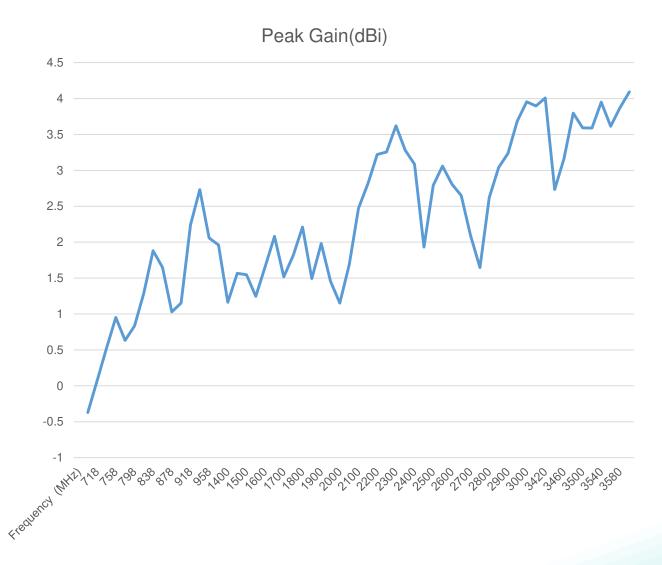
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## **CHARTS**

# Peak Gain(dBi)







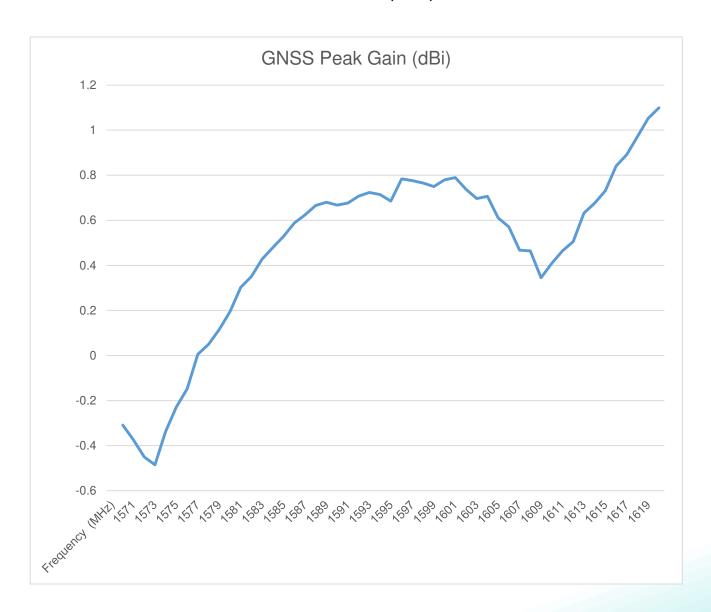
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## **CHARTS**

# Peak Gain(dBi)









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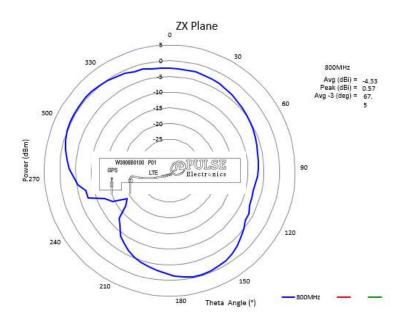
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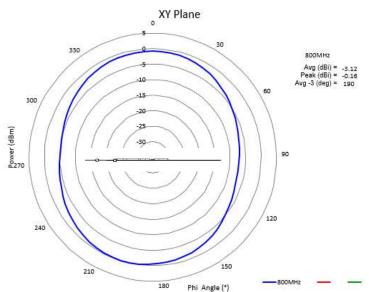
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## **CHARTS**

LTE radiation pattern 698-960MHz (800MHz)

## **Elevation Plane**







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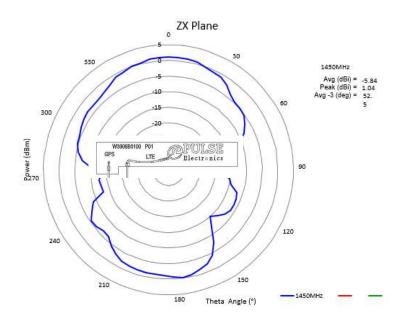
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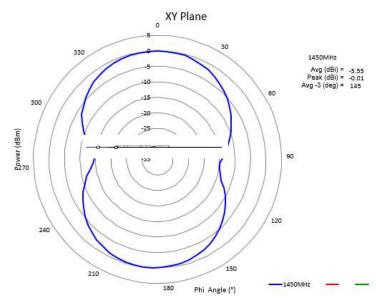
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## **CHARTS**

LTE radiation pattern 1427.9-1510.9MHz (1450MHz)

## **Elevation Plane**







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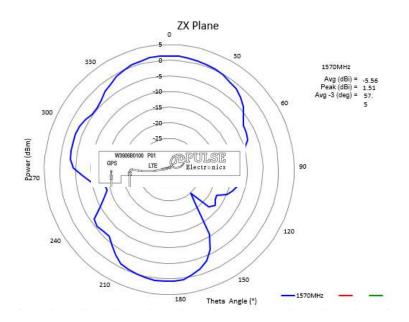
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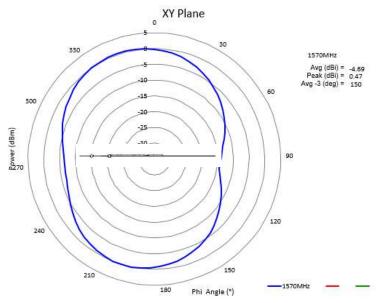
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## **CHARTS**

LTE radiation pattern 1559-1610MHz (1570MHz)

## **Elevation Plane**







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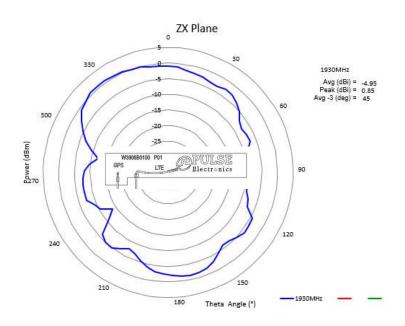
Series: Gemini

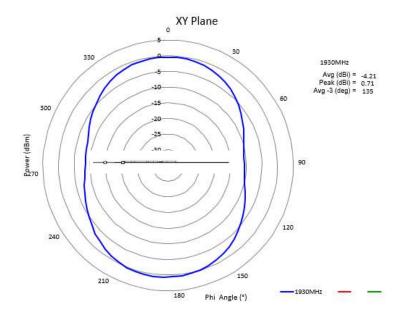
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## **CHARTS**

LTE radiation pattern 1695-2200MHz (1930MHz)

## **Elevation Plane**







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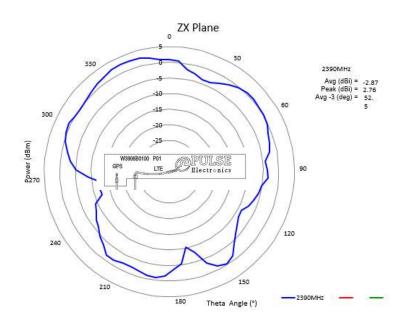
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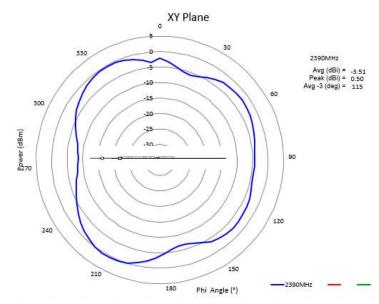
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## **CHARTS**

LTE radiation pattern 2300-2700MHz (2390MHz)

## **Elevation Plane**







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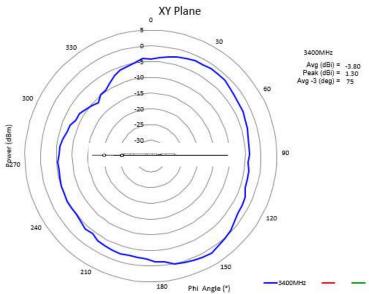
## **CHARTS**

LTE radiation pattern 3400-3600MHz (3400MHz)

## **Elevation Plane**

## Horizontal Plane





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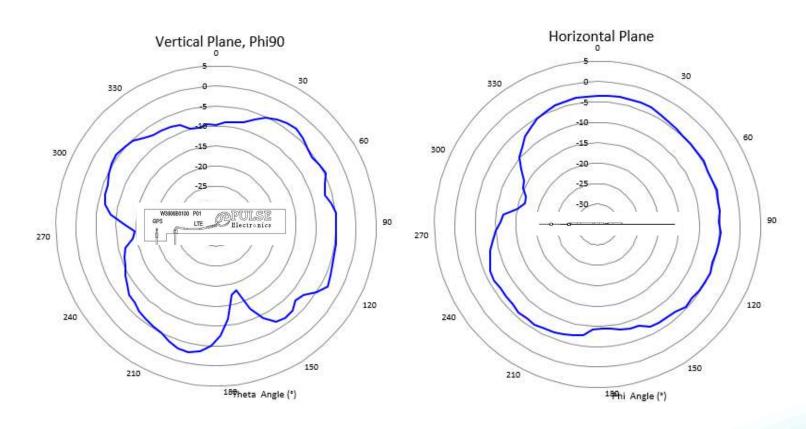
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## **CHARTS**

GNSS radiation pattern 1570-1610MHz (1575MHz)

## **Elevation Plane**





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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