

Description: LTE 698-3600MHz FPC Antenna

# Series: Gemini

#### PART NUMBER: W3907XXXX



#### Features:

- 2G / 3G / 4G Div Ant for MiMo
- Used as pair for W3906B0100
- Can be used as Primary antenna
- 698-3600MHz
- Global LTE Bands:
  - B1-B23, B25-B29, B33-B42
  - N.A.; Europe, Asia (incl. Jap.)
- · Foldable for tight spaces

# **Applications:**

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



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Pulse Worldwide Headquarters 15255 Innovation Drive #100 San Diego, CA 92128 USA Tel:1-858-674-8100

All dimensions are in mm / inches

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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Pulse LARSEN Antennas A YAGEO Company

Description: LTE 698-3600MHz FPC Antenna

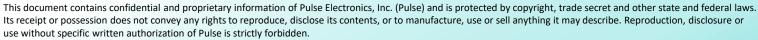
# Series: Gemini

PART NUMBER: W3907XXXX

ELECTRICAL SPECIFICATIONS				
P/N	W3907B0100/ W3907B0127/ W3907BD0100	W3907BD0350		
Frequency	698-960/1427.9- 1510.9/1559- 1610/1695- 2200/2300- 2700/3400- 3600MHz	698-960/1427.9-1510.9/1559- 1610/1695-2200/2300- 2700/3400-3600MHz		
Return Loss(698-960MHz)	-6dB	-6dB		
Return Loss(1427.9-1510.9/1559- 1610/1695-2200/2300-2700/3400- 3600MHz)	-7.5dB	-7.5dB		
Average Total Efficiency(698-960MHz)	55%	49%		
Average Total Efficiency(1427.9- 1510.9MHz)	60%	48%		
Average Total Efficiency(1559-1610MHz)	60%	52%		
Average Total Efficiency(1695-2200MHz)	65%	48%		
Average Total Efficiency(2300-2700MHz)	70%	48%		
Average Total Efficiency(3400-3600MHz)	65%	40%		

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Pulse **LARSEN** Antennas

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ELECTRICAL SPECIFICATIONS				
P/N	W3907B0100/ W3907B0127/ W3907BD0100	W3907BD0350		
Peak Gain(698-960MHz)	2.9dBi	1.0dBi		
Peak Gain(1427.9-1510.9MHz)	1.7dBi	1.1dBi		
Peak Gain(1559-1610MHz)	1.8dBi	1.4dBi		
Peak Gain(1695-2200MHz)	3.4dBi	2.2dBi		
Peak Gain(2300-2700MHz)	3.8dBi	2.0dBi		
Peak Gain(3400-3600MHz)	4.2dBi	1.4dBi		
Polarization	Linear	Linear		
Nominal Impedance	50ohm	50ohm		
Power Standing	3W	3W		

# Typical free space performance measured on 2mm thickness PC plate

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#### **MECHANICAL SPECIFICATIONS**

Overall Length Antenna Color / Material Cable type Cable length 110.7X20.4mm BLACK FPC See table detail See table detaill

#### **ENVIRONMENTAL SPECIFICATIONS**

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

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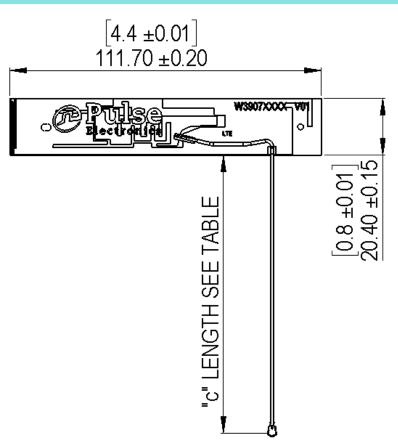


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#### **MECHANICAL DRAWING**



P.N	"C' LENGTH	CABEL TYPE	CONNECTOR TYPE
W3907B0100	100MM	AWG#32 1.13MM	Equivalent of I-PEX MHF
W3907BD0100	TOOMIN	AWG#36 0.81MM	Equivalent of I-PEX MHF4
W3907B0127	127MM	AWG#32 1.13MM	Equivalent of I-PEX MHF
W3907BD0350	350MM	AWG#36 0.81MM	Equivalent of I-PEX MHF4

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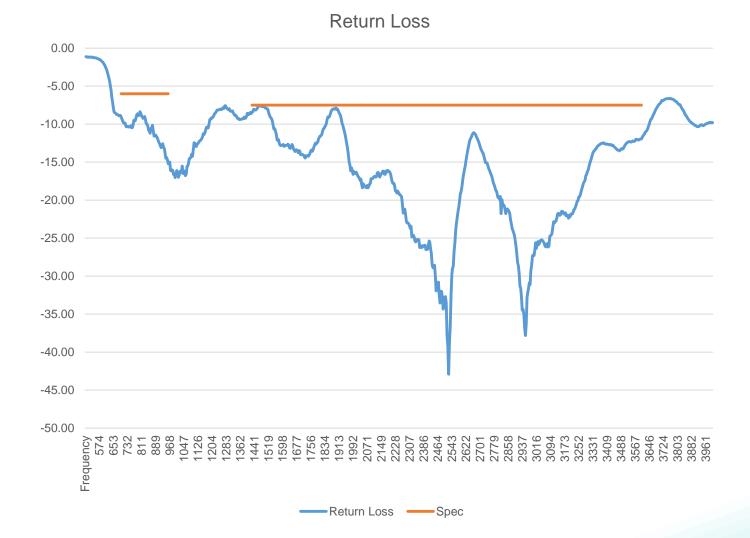
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#### CHARTS

# **Return Loss**



### Note: Antenna tested on 2mm thickness PC plate with 100mm feed cable

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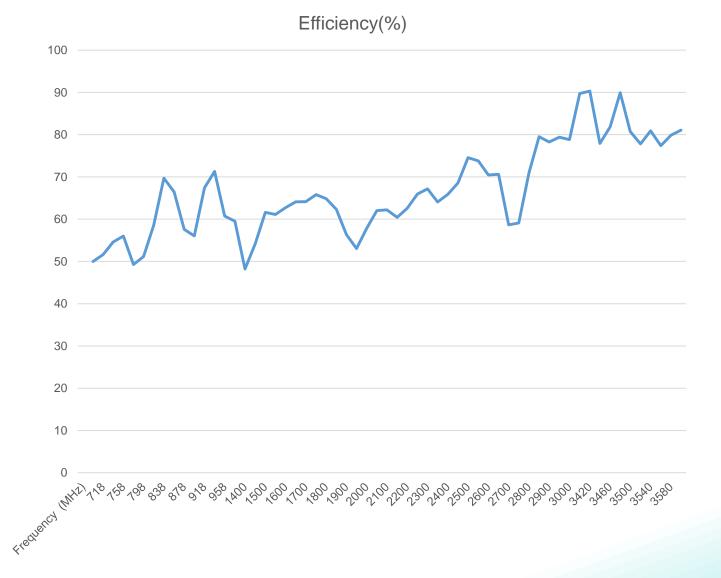
Description: LTE 698-3600MHz FPC Antenna

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### CHARTS

# Efficiency



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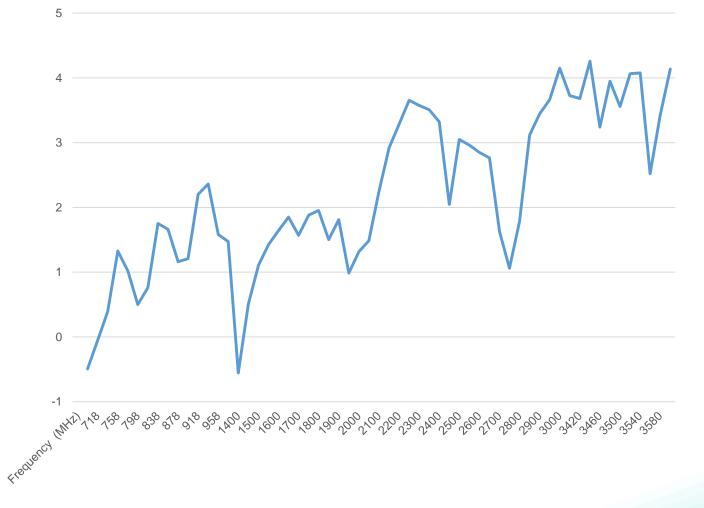
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### CHARTS

# Peak Gain





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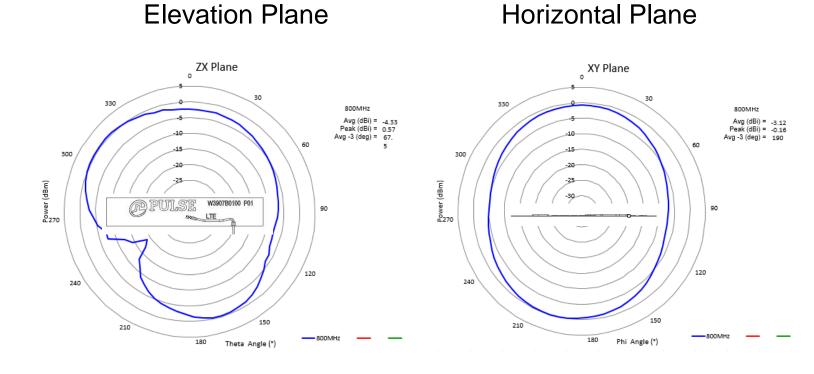
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#### CHARTS

Typical free space radiation pattern 698-960MHz (800MHz)



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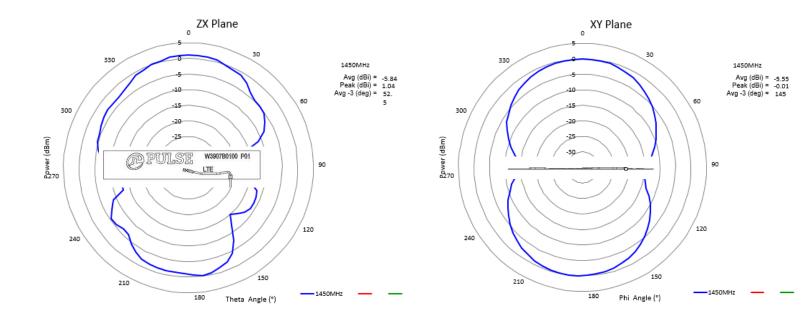
PART NUMBER: W3907XXXX

#### CHARTS

Typical free space radiation pattern 1427.9-1510.9MHz (1450MHz)



# Horizontal Plane



# Note: Antenna tested on 2mm thickness PC plate with 100mm feed cable

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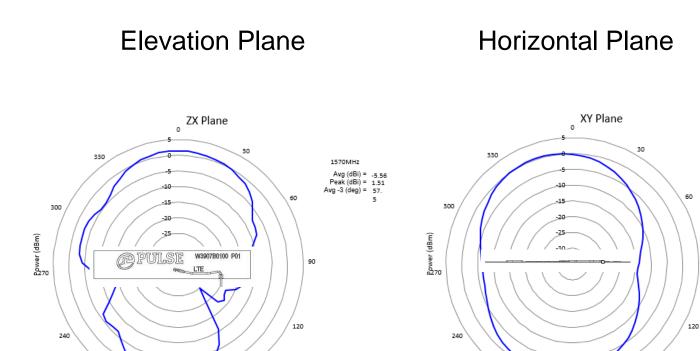
Description: LTE 698-3600MHz FPC Antenna

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#### CHARTS

Typical free space radiation pattern 1559-1610MHz (1570MHz)



# Note: Antenna tested on 2mm thickness PC plate with 100mm feed cable

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150

Theta Angle (°)

180

1570MHz

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210



1570MHz

90

1570MHz

150

Phi Angle (°)

180

210

Avg (dBi) = -4.69 Peak (dBi) = 0.47 Avg -3 (deg) = 150



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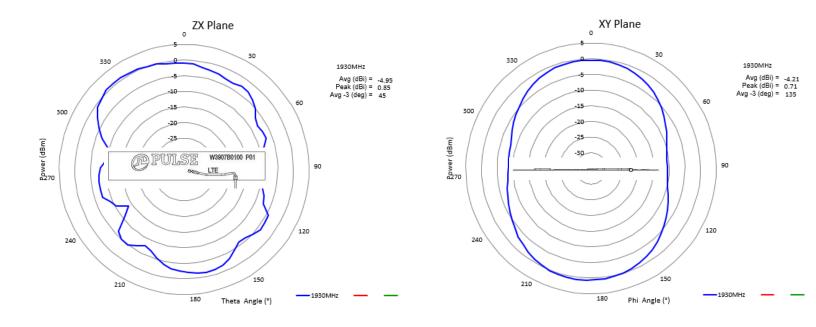
PART NUMBER: W3907XXXX

#### CHARTS

Typical free space radiation pattern 1695-2200MHz (1930MHz)

# Elevation Plane

# Horizontal Plane



# Note: Antenna tested on 2mm thickness PC plate with 100mm feed cable

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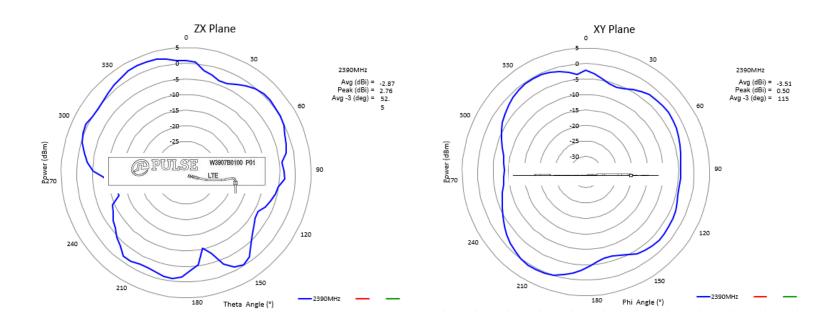
PART NUMBER: W3907XXXX

#### CHARTS

Typical free space radiation pattern 2300-2700MHz (2390MHz)

**Elevation Plane** 

# Horizontal Plane



# Note: Antenna tested on 2mm thickness PC plate with 100mm feed cable

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Horizontal Plane

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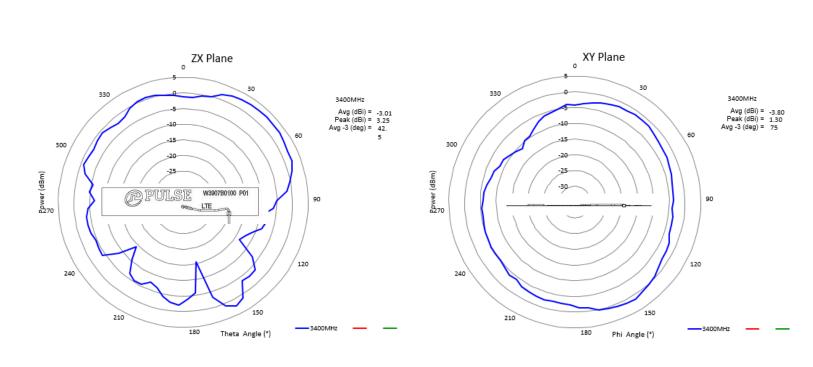
### Series: Gemini

PART NUMBER: W3907XXXX

#### CHARTS

Typical free space radiation pattern 3400-3600MHz (3400MHz)

**Elevation Plane** 



# Note: Antenna tested on 2mm thickness PC plate with 100mm feed cable

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ROHS 14



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#### PACKAGING

10pcs antenna per PE bag

10pcs PE bags per form bag

12pcs form bag per package box

- Total 1200pcs per package box
- Package box: 460mm\*235mm\*140mm

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