



# **Description: 2x2 MIMO LTE FPC ANTENNA**

# Series: Gemini

### PART NUMBER: W6112B0100





#### All dimensions are in mm / inches

### Features:

- 2G / 3G / 4G
- Global LTE Bands:
  - B1-B23, B25-B29, B33-B42
  - N.A.; Europe, Asia (incl. Jap.)
- Single device
  - Guaranteed Port-to-Port
    Isolation
- · 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



Issue: 1616

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For more information: Pulse Worldwide Headquarters

12220 World Trade Drive 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 1



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### **ELECTRICAL SPECIFICATIONS**

Frequency	698-960/1427.9-1510.9/15	59-1610/
	1695-2200/2300-2700/3400	-3600 MHz
Nominal Impedance		50Ω
Return loss(698-960MHz)		-6dB
Return loss(1427.9-1510.9/1559-1	610/	
1695-2200/2300-2700/3400-3600	MHz)	-7.5dB
Isolation(698-960MHz)		-10dB
Isolation(1427.9-1510.9/1559-1610	0/	
1695-2200/2300-2700/3400-3600	MHz)	-13dB
Average Total Efficiency (698-960	MHz)	55%
Average Total Efficiency (1427.9-1	510.9MHz)	60%
Average Total Efficiency (1559-161	10MHz)	60%
Average Total Efficiency (1695-220	DOMHz)	65%
Average Total Efficiency (2300-270	DOMHz)	70%
Average Total Efficiency (3400-360	DOMHz)	65%

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Peak Gain (698-960MHz)	4.3dBi	
Peak Gain (1427.9-1510.9MHz)	3.4dBi	
Peak Gain (1559-1610MHz)	2.4dBi	
Peak Gain (1695-2200MHz)	4.1dBi	
Peak Gain (2300-2700MHz)	4.6dBi	
Peak Gain (3400-3600MHz)	4.0dBi	
Radiation Pattern	Omni	
Polarization	Linear	
Power withstanding	3W	
Connector type	IPEX 20278-112R-13	
Cable type	Low loss Ф1.13mm Coaxial Cable	
Cable length	100mm	

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





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MECHANICAL SPECIFICATIONS		
Color	Black	
Weight	2.9 g	
Overall Length	8.835 INCHES	
Fixing system	Adhesive Tape, 3M6677 PC	

### **ENVIRONMENTAL SPECIFICATIONS**

**Operating temperature** 

-40~85° C

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### CHARTS

# **Return Loss**



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# CHARTS

# Efficiency(%)

Total Efficiency in free space, %



\_\_\_\_P1 \_\_\_\_P2

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### CHARTS

# Peak Gain(dBi)

Peak gain in free space, dBi



\_\_\_\_P1 \_\_\_\_P2

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### CHARTS

# Average Gain(dBi)

Average gain in free space, dBi



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### CHARTS

# ECC

ECC in free space, uniform pdf, XPR=OdB



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



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





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



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**CHARTS** 

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





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### **CHARTS**

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



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



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