

Series: Internal Antenna

LTE DIVERSITY

PART NUMBER: W6113XXXXX

Features:

- 2G / 3G / 4G MiMo
- · Global LTE Bands:
 - B1-B23, B25-B29, B33-B42
 - N.A.; Europe, Asia (incl. Jap.)
- GNSS (GPS, Glonass)
- 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: 2045

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W6113XXXXX 698-960/1427.9-1510.9/1559-1610/ 1695-2200 /2300-2700/

LTE PRIMARY

For more information: Pulse Worldwide Headquarters

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All dimensions are in mm / inches

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TECHNICAL DATA SHEET Description: 2x2 MIMO LTE + GNSS FPC ANTENNA

PART NUMBER: W6113XXXXX

ELECTRICAL SPECIFICATIONS

LTE1 & LTE2 :

Frequency	698-960/1427.9-1510.9/1559-1610/		
	1695-2200/2300-2700/34	400-3600 MHz	
Nominal Impedance		50Ω	
Return loss(698-960MHz)		-6dB	
Return loss(1427.9-1510.9/1559-1610/			
1695-2200/2300-2700/3400-3600	MHz)	-7.5dB	
Isolation(698-960MHz)		-10dB	
Isolation(1427.9-1510.9/1559-1610/			
1695-2200/2300-2700/3400-3600MHz)		-13dB	
Average Total Efficiency (698-960MHz) 55		55%	
Average Total Efficiency (1427.9-1510.9MHz) 60%		60%	
Average Total Efficiency (1559-1610MHz) 609		60%	
Average Total Efficiency (1695-2200MHz) 65%		65%	
Average Total Efficiency (2300-2700MHz) 7		70%	
Average Total Efficiency (3400-3600MHz)		65%	

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ELECTRICAL SPECIFICATIONS

Peak Gain (698-960MHz)	2.9dBi	
Peak Gain (1427.9-1510.9MHz)	1.7dBi	
Peak Gain (1559-1610MHz)	1.8dBi	
Peak Gain (1695-2200MHz)	3.4dBi	
Peak Gain (2300-2700MHz)	3.8dBi	
Peak Gain (3400-3600MHz)	4.2dBi	
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	
Connector type	U.FL compatible	
Cable type	Low loss Φ1.13mm Coaxial Cable	

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

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MECHANICAL SPECIFICATIONS

Black	
3.5 g	
OD 1.13mm coax cable	
SEE Page 6	
U.FL compatible	
ve 3M467	

ENVIRONMENTAL SPECIFICATIONS

Operating temperature

-40/+85 ° C

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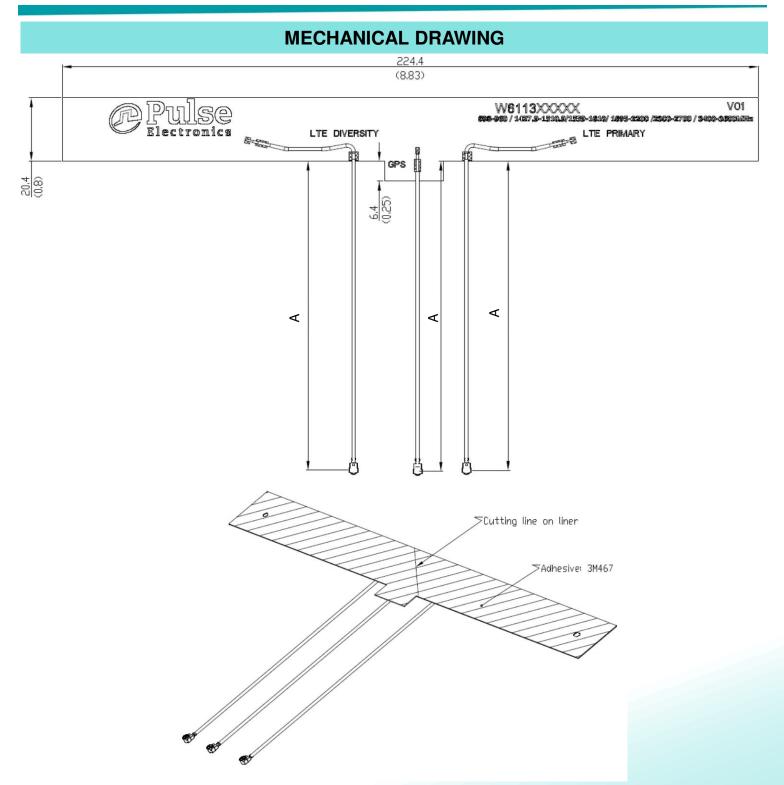


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Item	Part Number	Cable length "A" (mm/inch)
1	W6113B0100	100/3.94
2	W6113B0130	130/5.12

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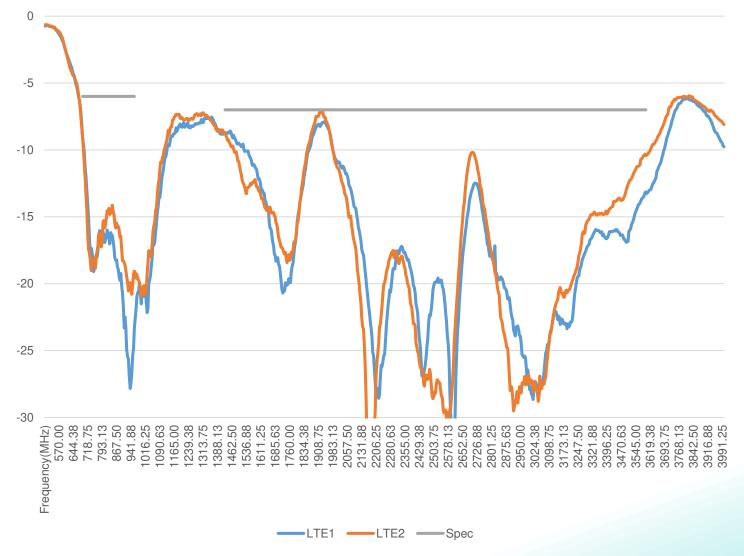
Series: Internal Antenna

PART NUMBER: W6113XXXXX

CHARTS

Return Loss [dB]

LTE1 & LTE2 Return Loss



Note : All test results measured with 100mm cable length

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CHARTS

Return Loss [dB]

GNSS Return Loss

Note : All test results measured with 100mm cable length

GNSS -Spec

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CHARTS Isolation [dB] Isolation 0 -5 -10 -15 -20 -25 -30 -35 -40 574.38 574.38 731.88 889.38 968.13 968.13 968.13 968.13 968.13 968.13 11046.88 1126.63 1126.63 1126.63 1126.63 1519.38 156.68 1519.38 1519.38 156.68 3015.63 3015.63 3094.38 3094.38 3645.63 3645.63 3645.63 3645.63 Frequency(MHz) LTE1 & LTE2 LTE1 & GNSS Spec

Note : All test results measured with 100mm cable length

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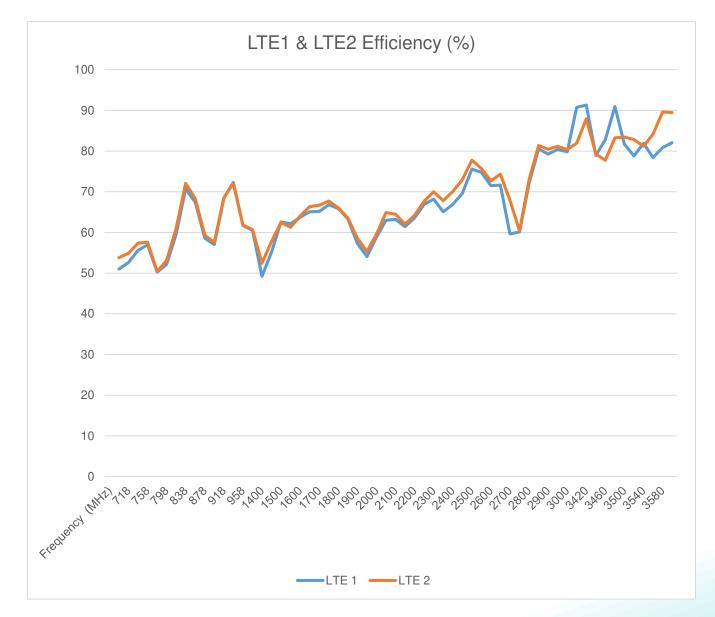


Series: Internal Antenna

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CHARTS

Efficiency(%)



Note : All test results measured with 100mm cable length

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ROHS 10

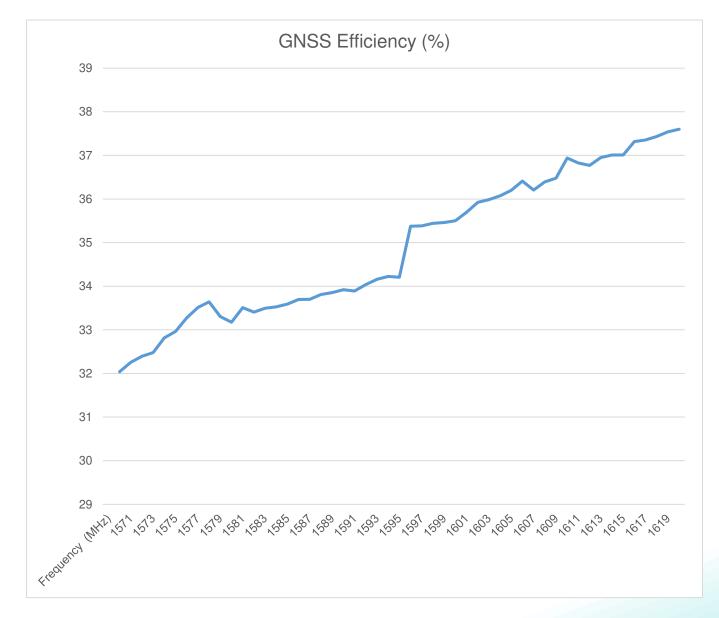


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CHARTS

Efficiency(%)



Note : All test results measured with 100mm cable length

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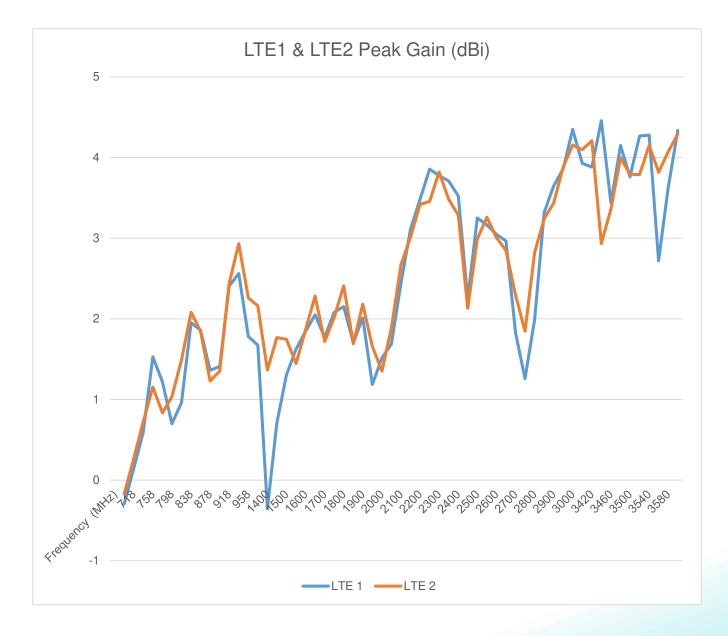


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CHARTS

Peak Gain(dBi)



Note : All test results measured with 100mm cable length

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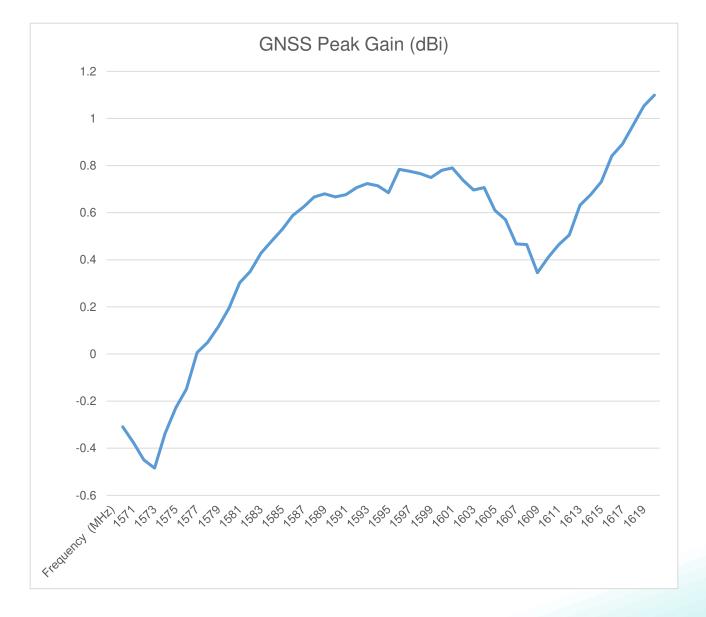


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CHARTS

Peak Gain(dBi)



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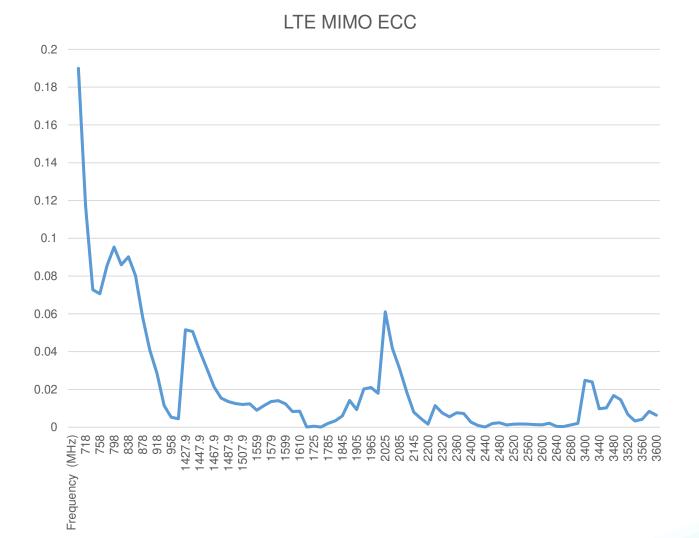


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CHARTS

ECC



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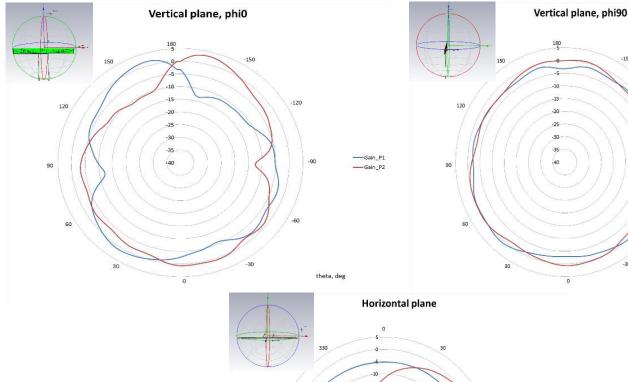


TECHNICAL DATA SHEET Description: 2x2 MIMO LTE + GNSS FPC ANTENNA

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CHARTS

LTE1 & LTE2 radiation pattern 698-960MHz (800MHz)



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-120

-Gain P1

Gain_P2

theta, deg



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CHARTS

LTE1 & LTE2 radiation pattern 1427.9-1510.9MHz (1450MHz) Vertical plane, phi0 Vertical plane, phi90 180 180 -150 -150 150 45 -120 -120 120 Gain P7 -Gain_P2 theta, deg theta deg **Horizontal plane** -70 Gain_P1 270 -Gain_P2 240 120 210 phi, deg 180

Note : All test results measured with 100mm cable length

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ROHS 16

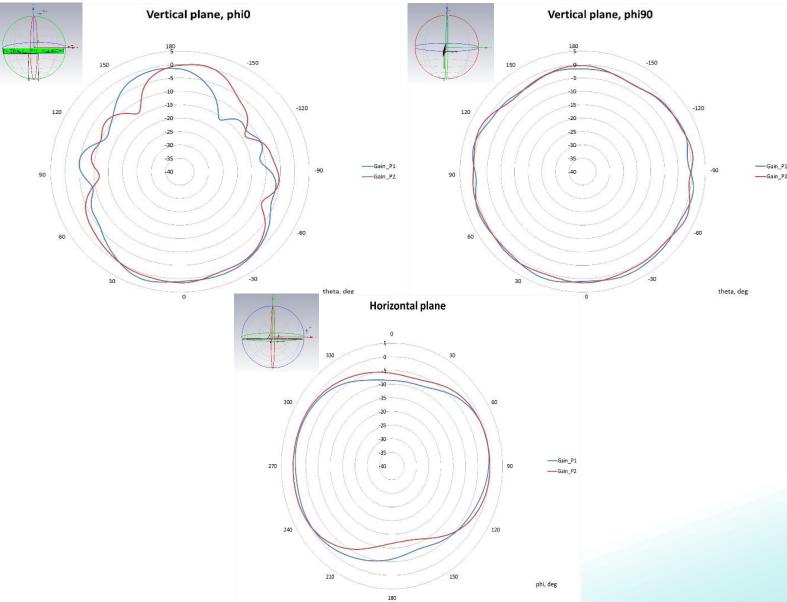


TECHNICAL DATA SHEET Description: 2x2 MIMO LTE + GNSS FPC ANTENNA

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CHARTS

LTE1 & LTE2 radiation pattern 1559-1610MHz (1570MHz)



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ROHS 17

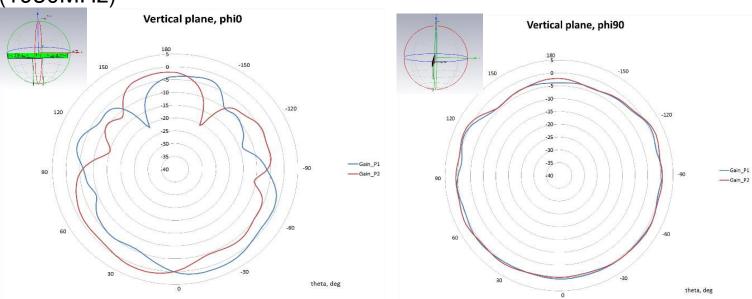


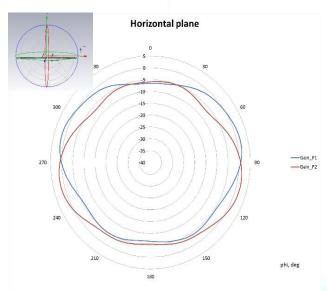
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CHARTS

LTE1 & LTE2 radiation pattern 1695-2200MHz (1930MHz)





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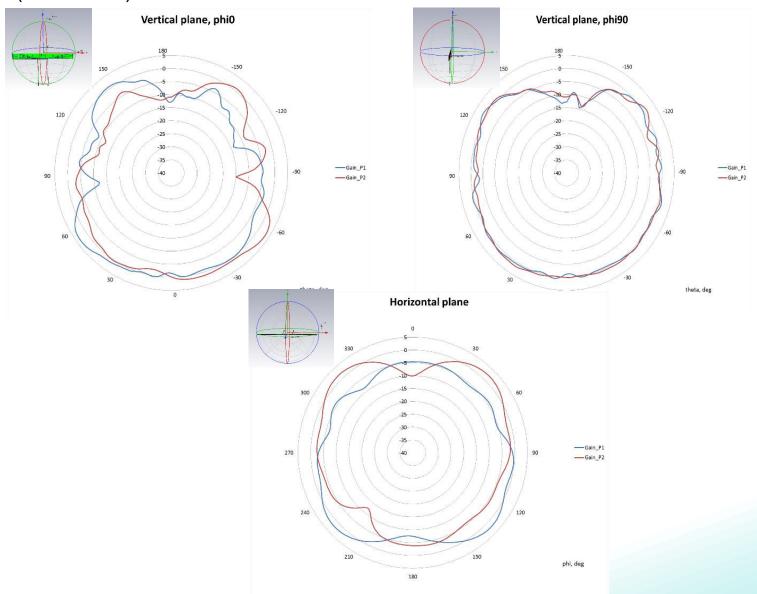


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CHARTS

LTE1 & LTE2 radiation pattern 2300-2700MHz (2390MHz)



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ROHS 19

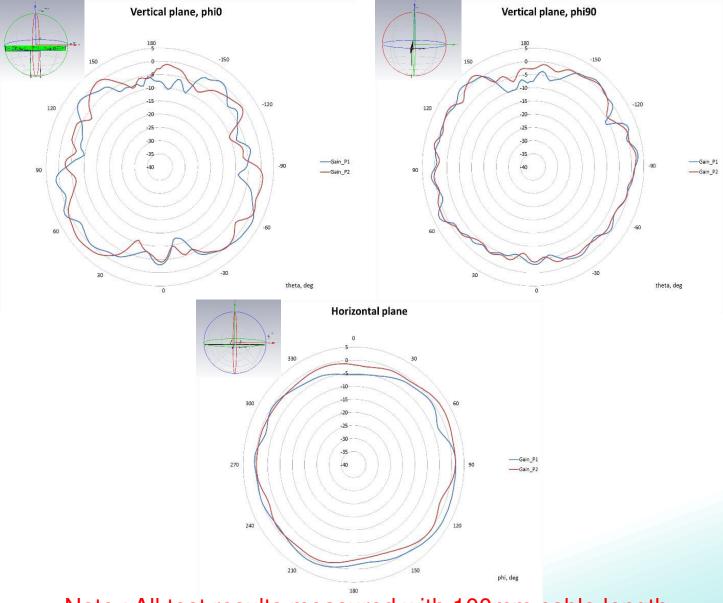


TECHNICAL DATA SHEET Description: 2x2 MIMO LTE + GNSS FPC ANTENNA

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CHARTS

LTE1 & LTE2 radiation pattern 3400-3600MHz (3400MHz)



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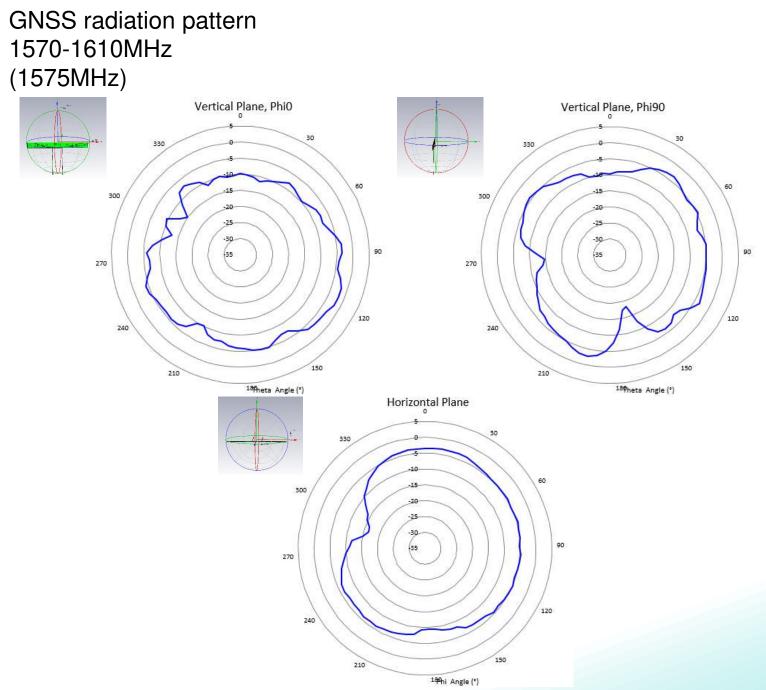
ROHS 20



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CHARTS



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ROHS 21



TECHNICAL DATA SHEET Description: 2x2 MIMO LTE + GNSS FPC ANTENNA

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PACKAGING

5PCS/PE bag 400 PE bag/foam bag 2 foam bag/ carton box

Total 4000PCS/Carton box





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