PulseLARSEN Antennas

TECHNICAL DATA SHEET

Series: Low Profile Blade

Description: 3G/Active GNSS Blade Antenna

PART NUMBER: W4120GNSS5000

Features:

- 2-Feeds (3G, GNSS)
- GNSS Active Antenna
  - LNA gain 30dB
  - Pre and post LNA filtering
- Adhesive tape mount
- Size 136 x 37.7 x 13.8mm
- Connector SMA Male
- Cable 16.4 feet
- RoHS compliant

Applications:

- 3G 806-2170MHz
- GNSS (Beidou, GPS, Galileo, Glonass)
- Vehicular mounting
- Asset Tracking, Navigation, Fleet Management
- Mobile and Fixed broadband
- Utility boxes

All dimensions are in mm / inches

Issue: 1709

RoHS COMPLIANT

For more information:

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Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

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

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ELECTRICAL SPECIFICATIONS

Frequency(LTE Cable)	806-960/1710-2170	MHz
Frequency(GNSS cable)	1561.098±2.046/ 1575.42±1.023/ 1602.5625±4	MHz
Nominal Impedance	50	Ω
VSWR (LTE)*	2.5:1	Max
VSWR (GNSS)*	2:1	Max
Peak Gain (LTE,698-960MHz,Typical)**	1.7	dBi
Peak Gain (LTE,1710-2700MHz,Typical)**	2.9	dBi
Efficiency (LTE,698-960MHz,Typical)**	55	%
Efficiency (LTE,1710-2700MHz,Typical)**	75	%
HPBW / Horizontal Plane (LTE/WiFi)**	Omni	
HPBW / Vertical Plane (LTE, 698-960MHz, Typical)**	32°	
HPBW / Vertical Plane (LTE,1710-2700MHz, Typical)**	50°	
Polarization (LTE)	Vertical	
Polarization (GNSS)	RHCP	
RHCP Peak Gain (GNSS Radiating element, Typical)***	1	dBic
Gain (LNA gain)	30	dB ± 2 dB
Out of Band Rejection		
698 MHz	>70	dB
960MHz	>65	dB
1710MHz	>60	dB
2170MHz	>65	dB
2400MHz	>65	dB
2700MHz	>65	dB

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ELECTRICAL SPECIFICATIONS

Noise Figure	<2.4	dB
Operating Voltage	3.3-5	Vdc±0.5V
Current Consumption	9	mA± 2 mA

MECHANICAL SPECIFICATIONS

Overall size	136 x 37.7 x 13.8mm
Weight	194g
Antenna Color	black
Connector type	SMA male
Cable type (LTE)	RG174
Cable type (GNSS)	RG174
Cable length	16.4’ (5 m)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40/+85 ° C
Storage Temperature	-40/+85 ° C
Ingress Protection	IP67
Wind-loading	100mph
RoHS Compliant	Yes

OTHER SPECIFICATIONS

Mounting	Adhesive Tape
Radome Material	PC/PET, UV resistant

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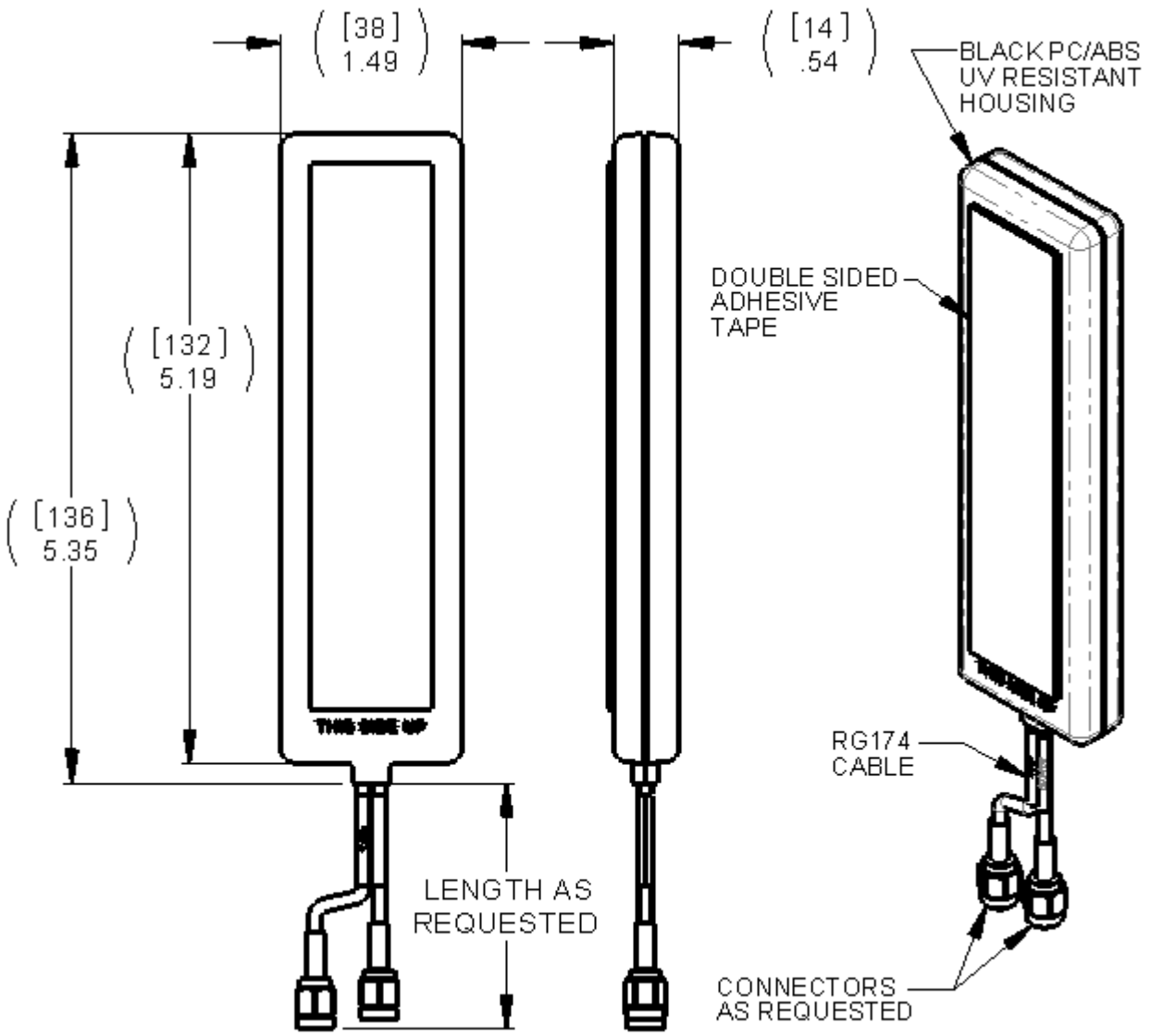
MECHANICAL DRAWING



RoHS COMPLIANT

Test Setup

*VSWR is tested with 5m cable in free space
** Radiation Performance is tested with 200mm cable in free space
***GNSS module is tested on 70X70mm ground plane

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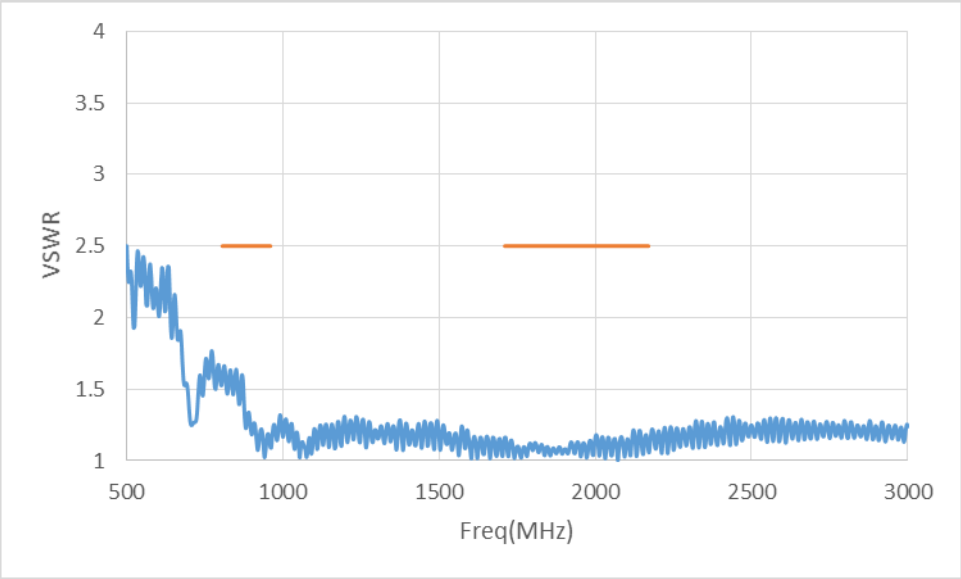
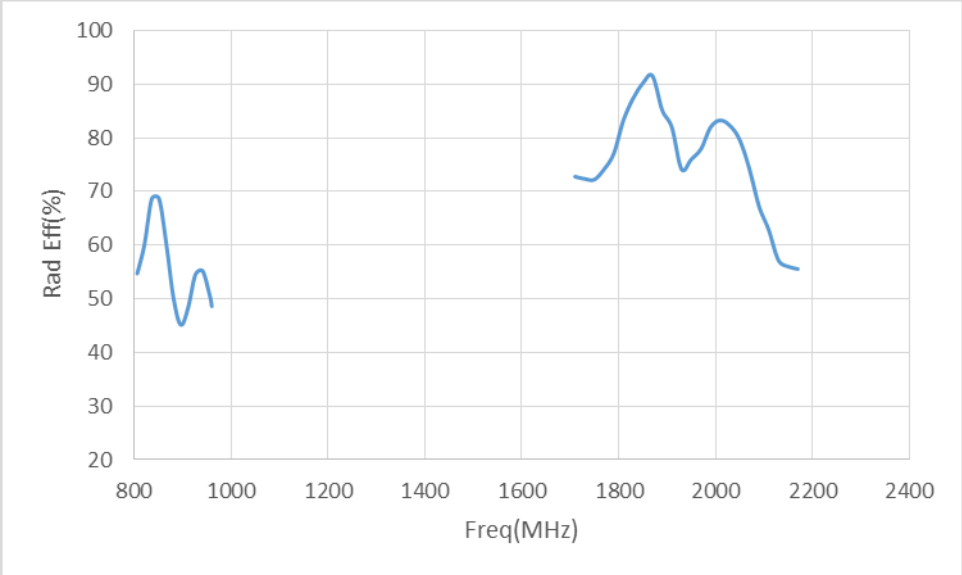
CHARTS

VSWR of 3G antenna



Radiation efficiency of 3G antenna



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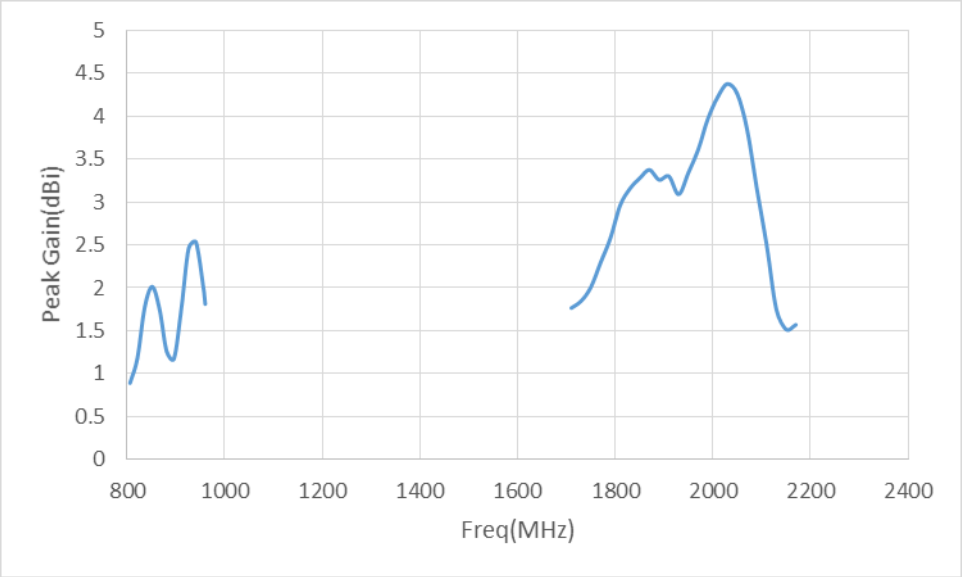
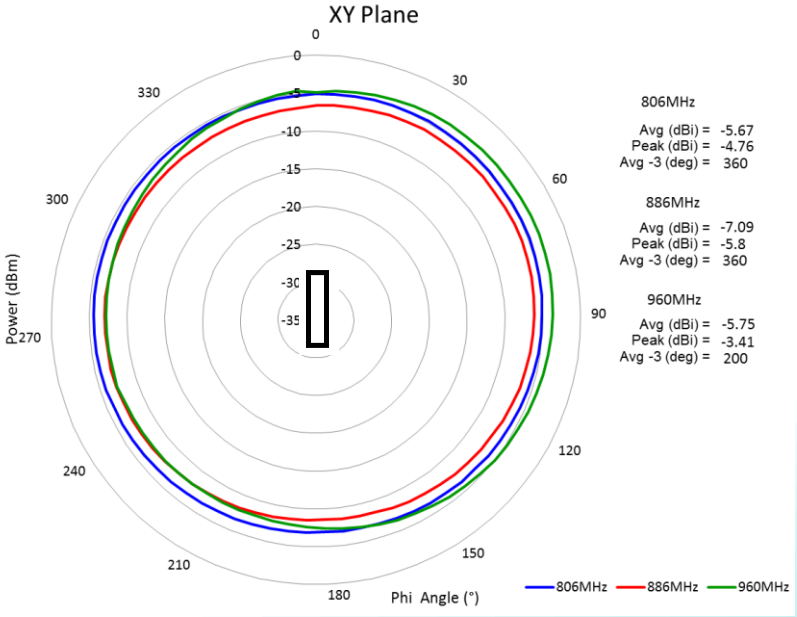
CHARTS

Peak Gain of 3G antenna



3G antenna X-Y plane radiation pattern at 3G low band



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

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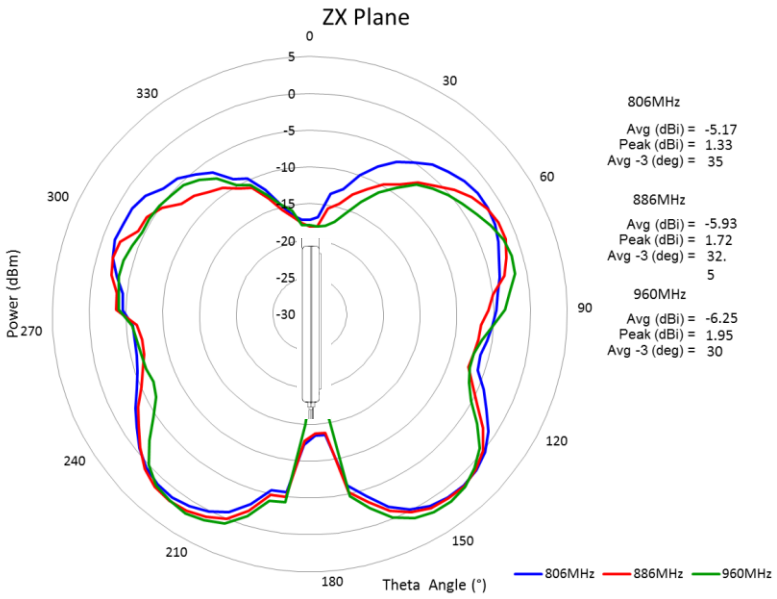
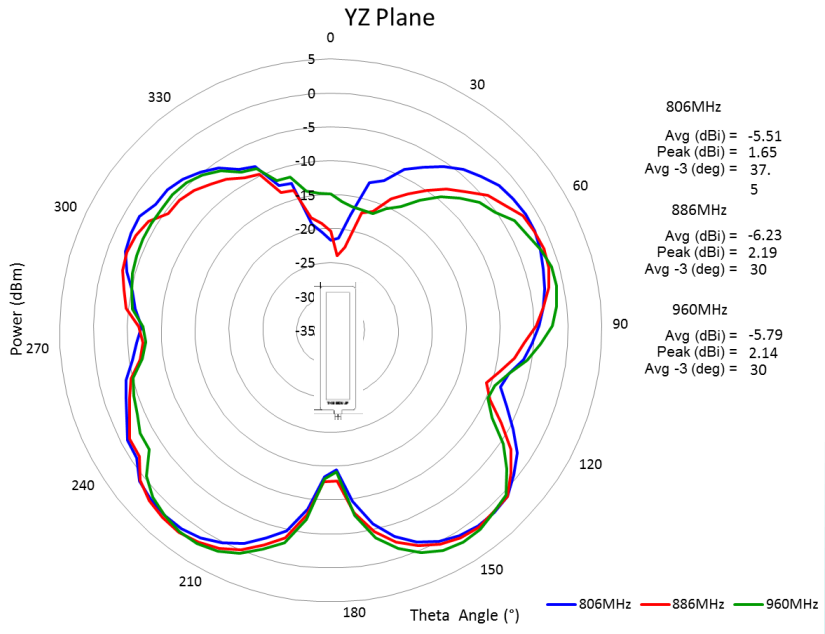
3G antenna Z-X plane radiation pattern at 3G low band



3G antenna Y-Z plane radiation pattern at 3G low band



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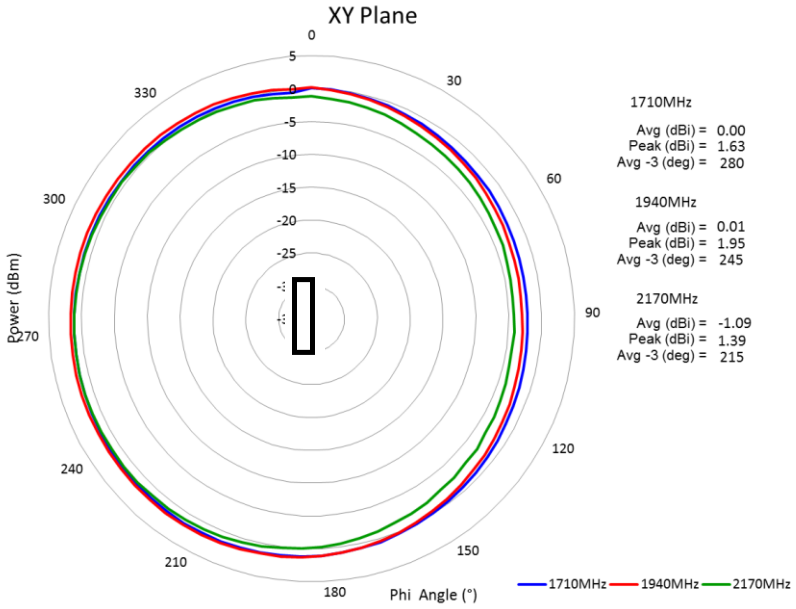
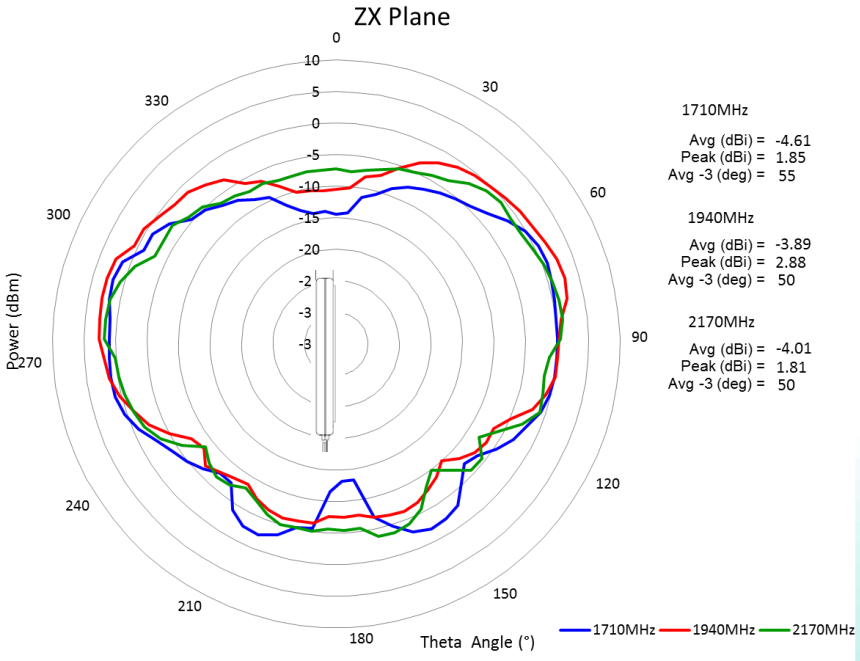
CHARTS

3G antenna X-Y plane radiation pattern at 3G high band



3G antenna Z-X plane radiation pattern at 3G high band



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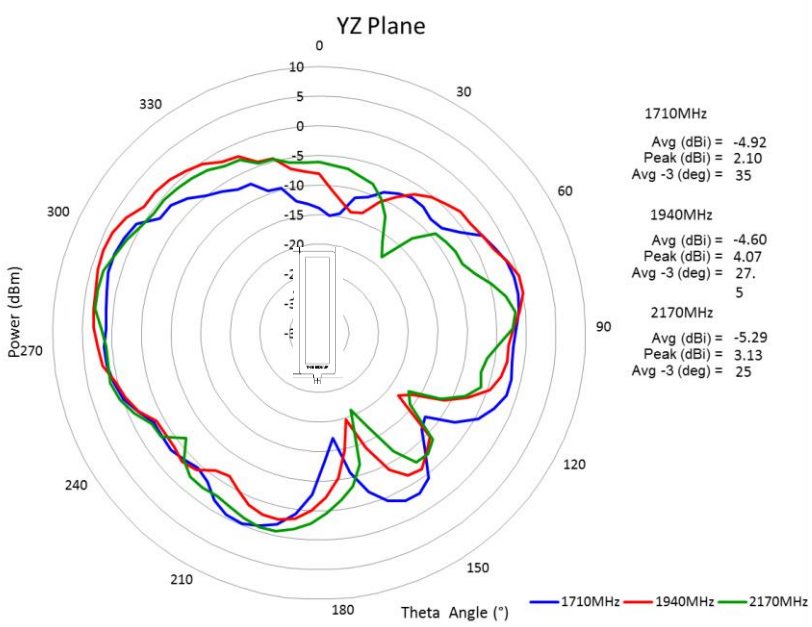
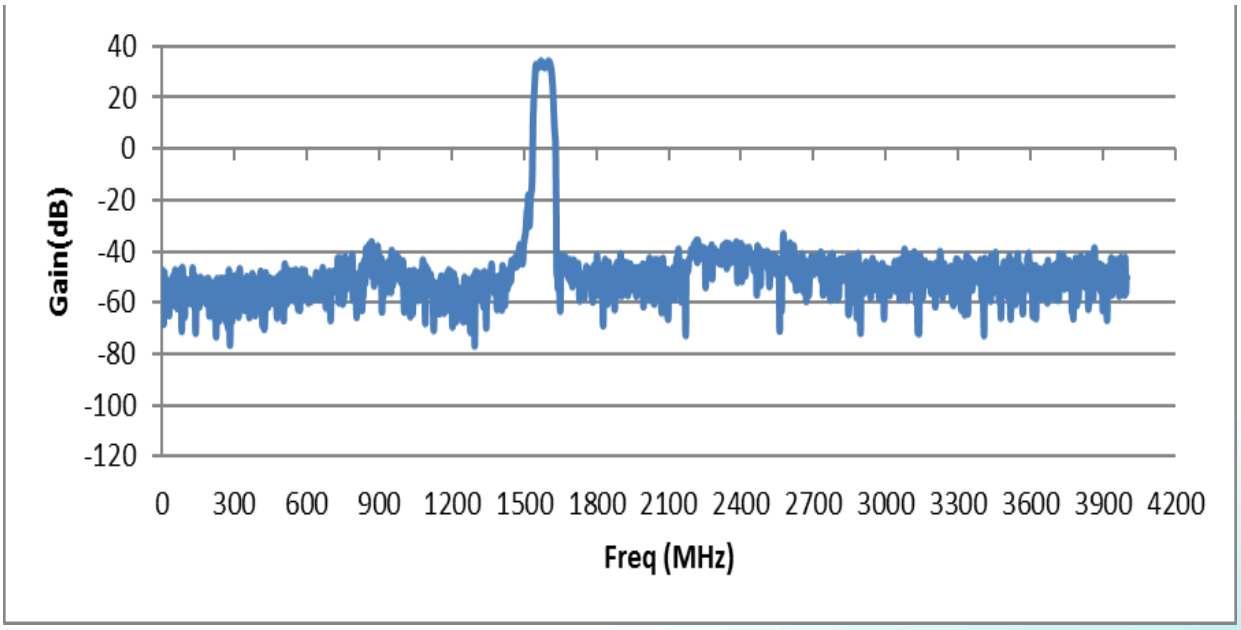
3G antenna Y-Z plane radiation pattern at 3G high band



LNA Gain and out-of-band rejection



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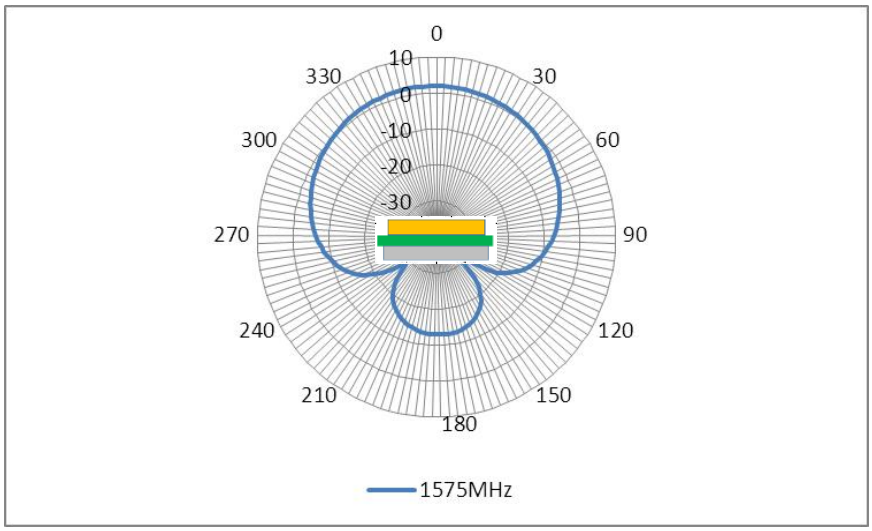
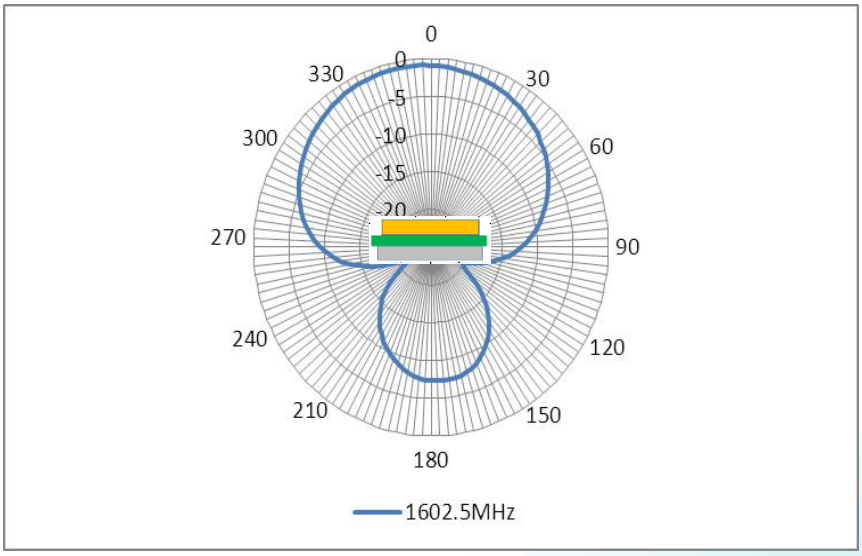
CHARTS

Radiation Pattern (70mm x 70mm ground plane) GPS & Galileo



Radiation Pattern (70mm x 70mm ground plane) GLONASS



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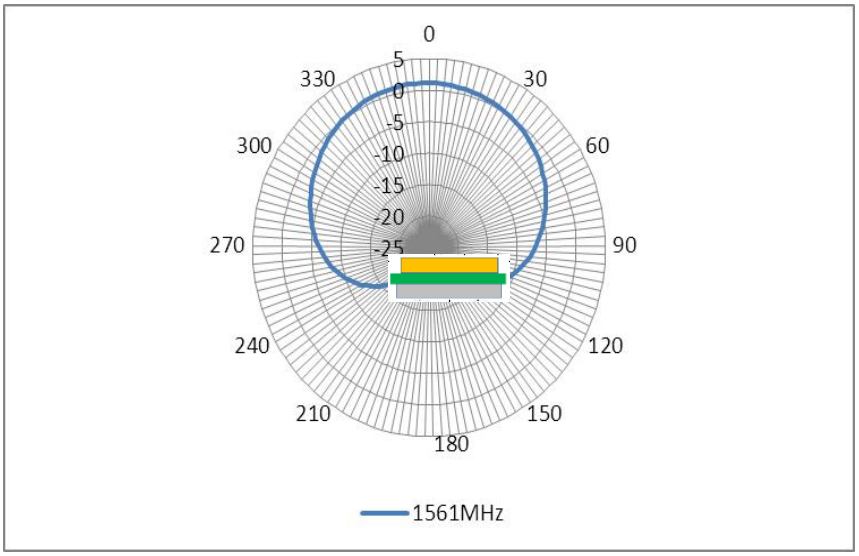
CHARTS

Radiation Pattern (70mm x 70mm ground plane) BD2



PACKAGING

56pcs antennas per package box

56pcs PE bags per package box

1pcs antenna per PE bag

Package box: 440mm*292mm*310mm

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

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