

#### **TECHNICAL DATA SHEET**

**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

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### **ELECTRICAL SPECIFICATIONS**

LEEGTHIOAL OF LOW IDAMIONS		
Frequency(LTE Cable)	806-960/1710-2170	MHz
	1561.098±2.046/	
Frequency(GNSS cable)	$1575.42 \pm 1.023$	MHz
	1602.5625±4	
Nominal Impedance	50	) Ω
VSWR (LTE)*	2.5:1	l Max
VSWR (GNSS)*	2:′	1 Max
Peak Gain (LTE,698-960MHz,Typical)**	1.7	7 dBi
Peak Gain (LTE,1710-2700MHz,Typical)**	2.9	9 dBi
Efficiency (LTE,698-960MHz,Typical)**	55	5 %
Efficiency (LTE,1710-2700MHz,Typical)**	7:	5 %
HPBW / Horizontal Plane (LTE/WiFi)**	(	Omni
HPBW / Vertical Plane (LTE, 698-960MHz, Ty	pical)**	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	$dB\pm 2\;dB$
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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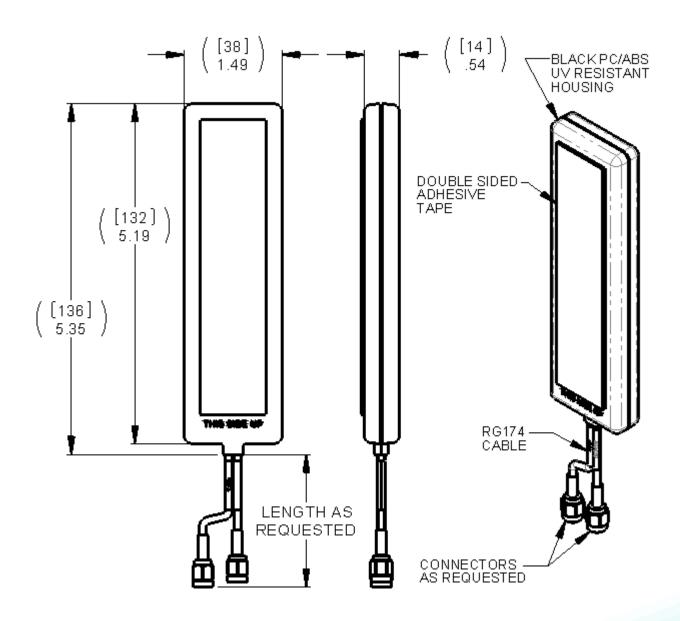


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### **Series: Low Profile Blade**

### **MECHANICAL DRAWING**





**Description**: 3G/Active GNSS Blade Antenna

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Series: Low Profile Blade

### **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



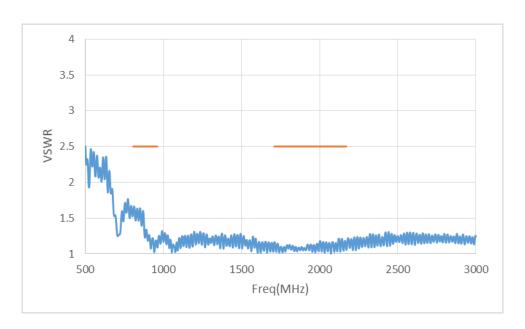
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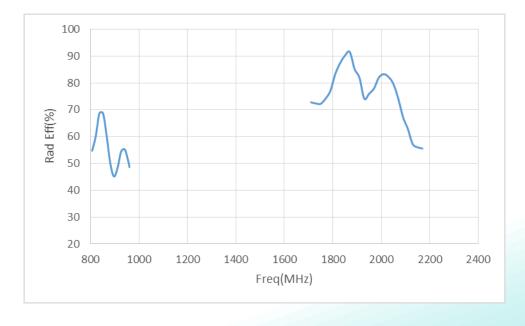
PART NUMBER: W4120GNSS5000

### **CHARTS**

### VSWR of 3G antenna



# Radiation efficiency of 3G antenna





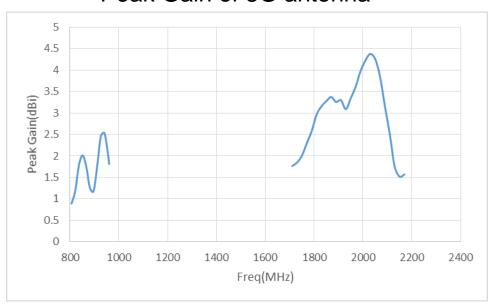
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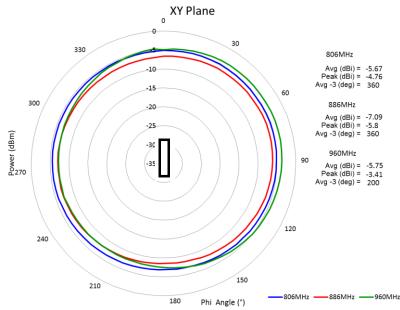
### **Series: Low Profile Blade**

### **CHARTS**

### Peak Gain of 3G antenna



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



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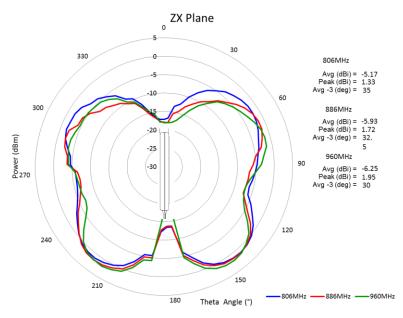
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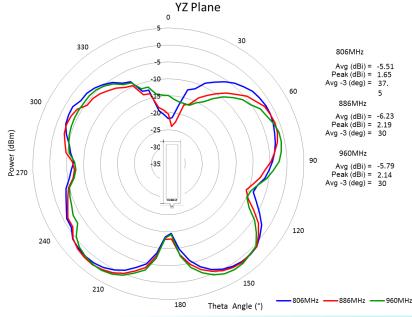
# **Series: Low Profile Blade**

### **CHARTS**

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



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





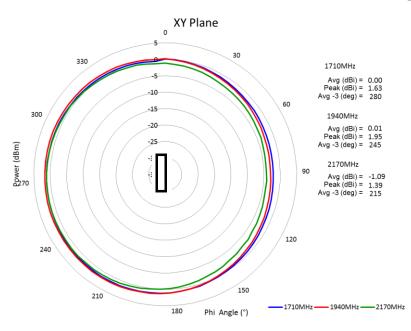
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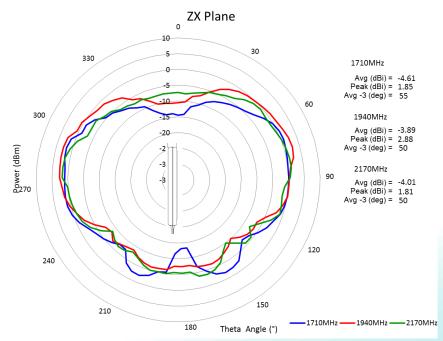
### **Series: Low Profile Blade**

### **CHARTS**

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



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





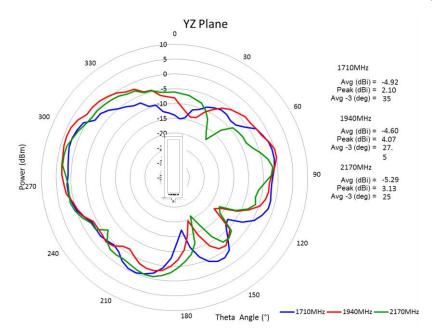
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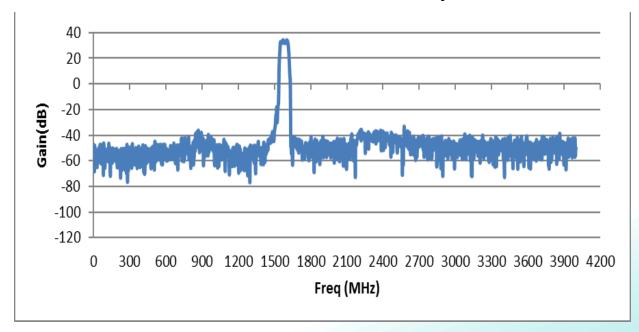
### **Series: Low Profile Blade**

### **CHARTS**

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



## LNA Gain and out-of-band rejection



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ROHS



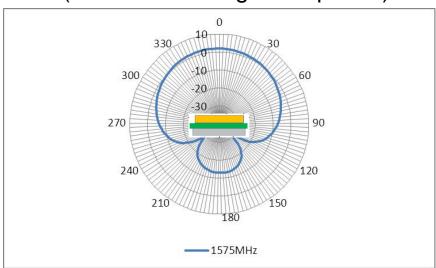
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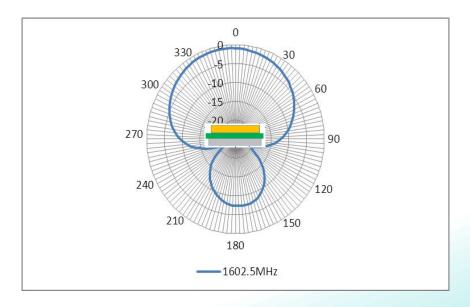
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### **CHARTS**

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



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







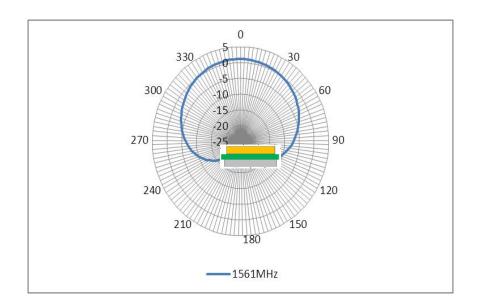
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### **CHARTS**

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





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### **PACKAGING**

56pcs antennas per package box

56pcs PE bags per package box

1pcs antenna per PE bag

Package box: 440mm\*292mm\*310mm

## 单击下面可查看定价,库存,交付和生命周期等信息

# >>Pulse(普思)