

Description: 28dBi GNSS Mag Mount Antenna,

**Coax Feed** 

PART NUMBER: GNSSMMSMA





## Features:

- Frequency 1559-1606 MHz
- Antenna Gain 1/2.4/3.5 dBic
- Polarization RHCP
- LNA Gain 28dB
- Current consumption 9mA
- Cable RG-174 with SMA Male
- RoHS Compliant

## **Applications:**

- GPS, Glonass, Beidou
- Navigation
- Location Based Services
- Fleet management
- Asset tracking
- Indoor/Outdoor IP67

All dimensions are in mm / inches

Issue: 1914

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

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1.1 dB Typ.

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#### **ELECTRICAL SPECIFICATIONS**

Antenna Type Patch

Frequency 1559-1563/1574-1577/1598-1606MHz

Nominal Impedance  $50 \Omega$ 

VSWR of Antenna 2.5/2/2 Max

Radiation Pattern **Omni** 

Antenna Gain 1/2.4/3.5 dBic Efficiency 55%/65%/85%

Polarization **RHCP** 

VSWR of LNA 2 Max

**LNA Gain** 28 dB Min

DC Power Input of LNA 3~5 Vdc Noise Figure

Power consumption(@3.3V) 9 mA Typ.

#### MECHANICAL SPECIFICATIONS

Overall Length 35.2 x 44 x 14.5 mm

Weight 68.39 g

Antenna Color / Material Black/PC+ABS

**SMA Male** Connector type

**RG-174** Cable type

Cable length 3000 mm

Mounting Method Magnet

## **ENVIRONMENTAL SPECIFICATIONS**

-40 ~ +85° C **Operating Temperature** 

Storage Temperature -40 ~ +85° C

**Ingress Protection IP67** 

**RoHS Compliant** Yes

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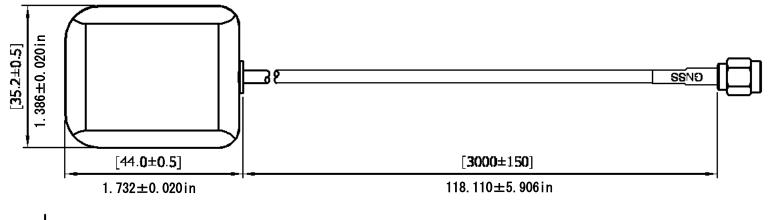
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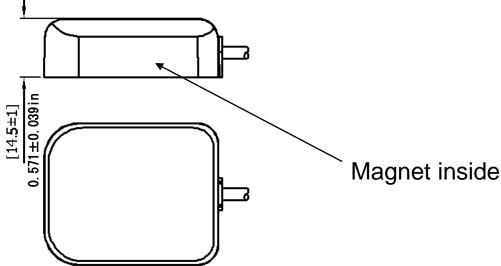
**Coax Feed** 

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## **MECHANICAL DRAWING**







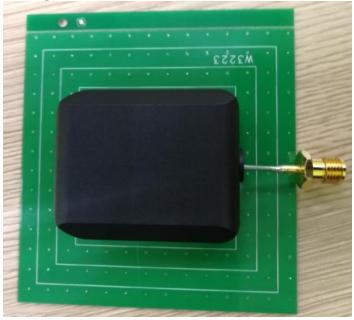
Description: 28dBi GNSS Mag Mount Antenna,

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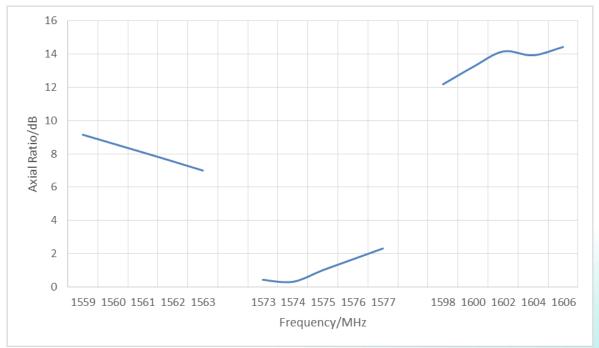
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## **TEST SETUP OF ANTENNA**

Test with 70\*70mm ground plane.



# Axial Ratio vs Frequency



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ROHS



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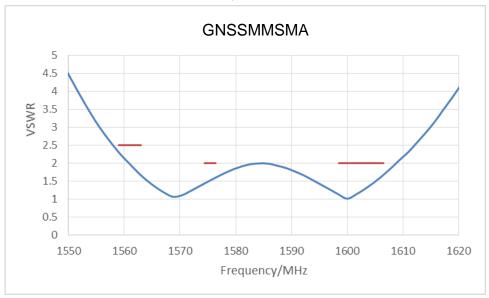
**Coax Feed** 

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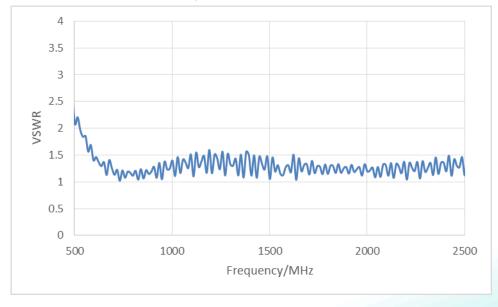
PART NUMBER: GNSSMMSMA

## **CHARTS**

## VSWR of Antenna vs Frequency



# VSWR of LNA vs Frequency





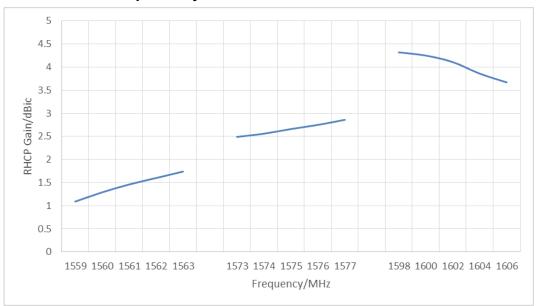
Description: 28dBi GNSS Mag Mount Antenna,

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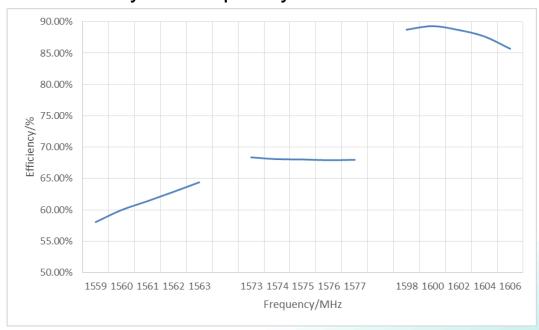
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## **CHARTS**

## RHCP Gain vs Frequency



# Radiation Efficiency vs Frequency



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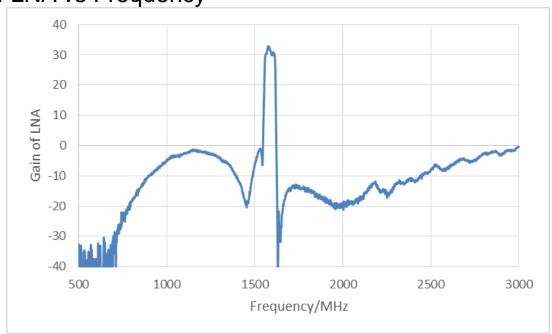
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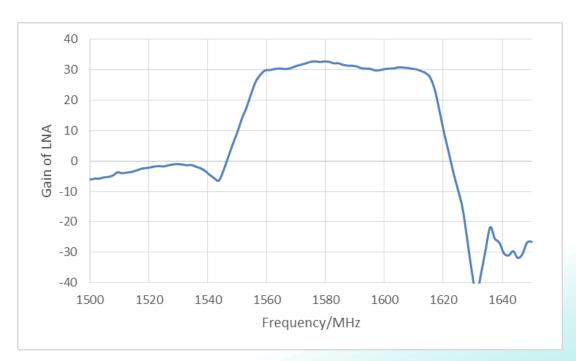
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## **CHARTS**

Gain of LNA vs Frequency











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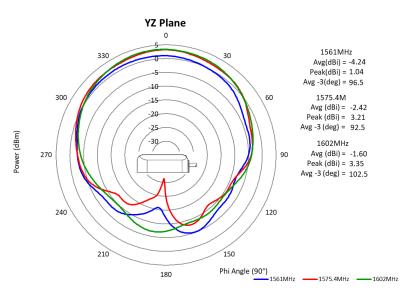
#### **CHARTS**

## Radiation Pattern of BD, GPS and GLONASS

## Horizontal Plane (Theta=45°)

#### **XY Plane** 1561MHz Avg(dBi) = -0.70Peak(dBi) = 0.80Avg -3(deg) = 359.5 300 1575.4M Avg (dBi) = 1.01-20 Peak (dBi) = 1.90 Avg -3 (deg) = 359.5 30 1602MHz 270 Avg (dBi) = 1.10 Peak (dBi) = 1.52 Avg -3 (deg) = 359.5 Theta Angle (45°) 1561MHz -1575.4MHz ----1602MHz

## Elevation Plane (Phi=90°)





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## **PACKAGING**

1 PCS / PE Bag 80 PCS / Carton



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