

TECHNICAL DATA SHEET Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

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

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

For more information: Pulse Worldwide Headquarters

15255 Innovation Drive #100 San Diego, CA 92128 USA Tel:1-858-674-8100 Pulse/Larsen Antennas 18110 SE 34th 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,4th Phase Suzhou New District Jiangsu Province, Suzhou 215009 PR China Tel: 86 512 6807 9998



1



Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

PART NUMBER: GNSSMMSMA

ELECTRICAL SPECIFICATIONS

Antenna Type	Patch
Frequency	1559-1563/1574-1577/1598-1606MHz
Nominal Impedance	50 Ω
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	1.1 dB Typ.
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
Connector type	SMA Male
Cable type	RG-174
Cable length	3000 mm
Mounting Method	Magnet
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-40 ~ +85° C
Storage Temperature	-40 ~ +85° C
Ingress Protection	IP67
RoHS Compliant	Yes
Issue: 1914	P ₀ HS

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

RoHS

2

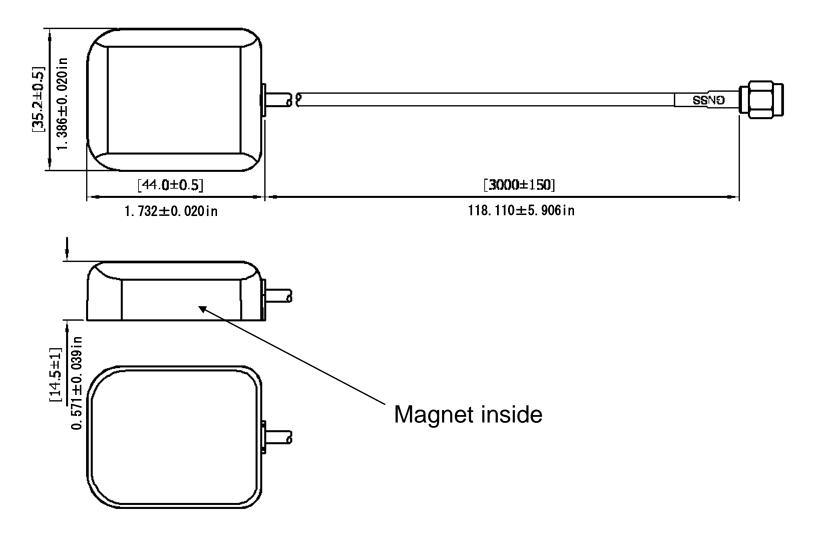


Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

PART NUMBER: GNSSMMSMA

MECHANICAL DRAWING



Issue: 1914

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



3

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



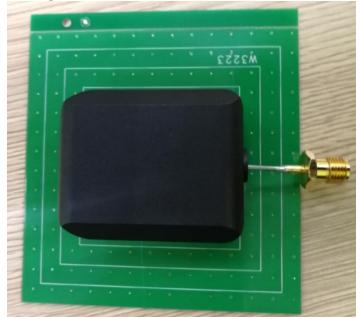
Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

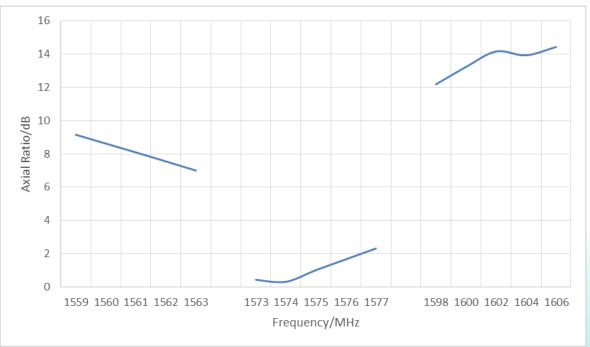
PART NUMBER: GNSSMMSMA

TEST SETUP OF ANTENNA

Test with 70*70mm ground plane.



Axial Ratio vs Frequency



Issue: 1914

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

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

4

RoHS



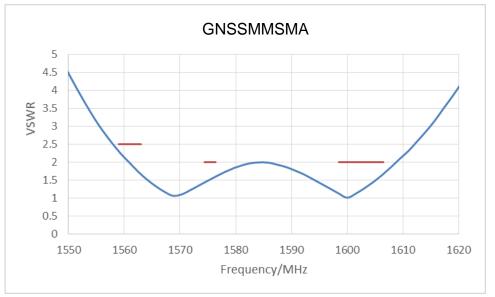
Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

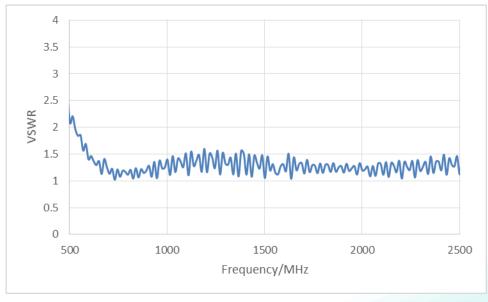
PART NUMBER: GNSSMMSMA

CHARTS

VSWR of Antenna vs Frequency



VSWR of LNA vs Frequency



Issue: 1914

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



5

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

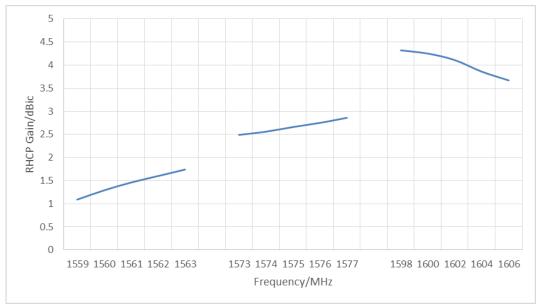


Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

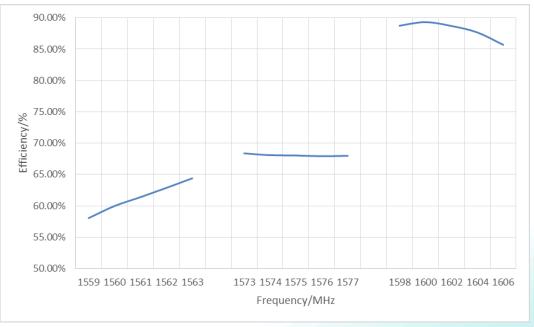
PART NUMBER: GNSSMMSMA

CHARTS



RHCP Gain vs Frequency

Radiation Efficiency vs Frequency



Issue: 1914

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



6

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

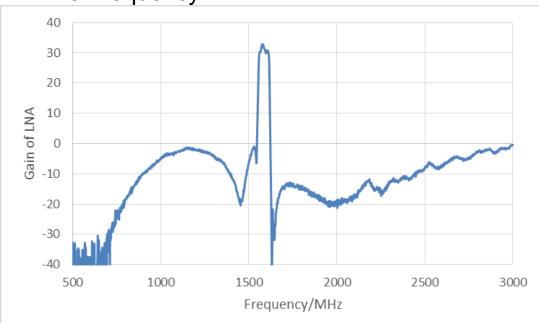


Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

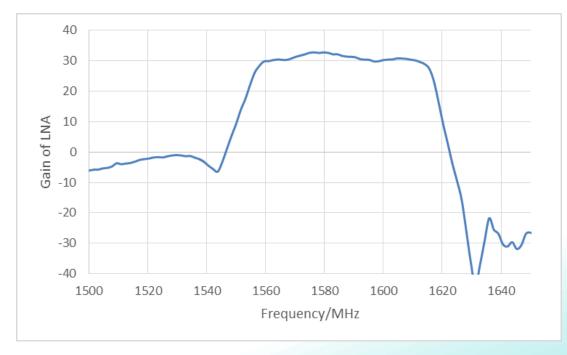
Series: GNSS Active Antenna

PART NUMBER: GNSSMMSMA

CHARTS



Gain of LNA vs Frequency



Issue: 1914

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



7

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



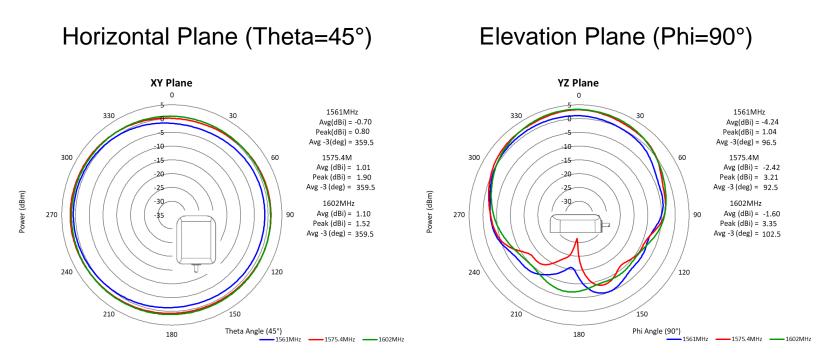
Description: 28dBi GNSS Mag Mount Antenna, Coax Feed

Series: GNSS Active Antenna

PART NUMBER: GNSSMMSMA

CHARTS

Radiation Pattern of BD,GPS and GLONASS



Issue: 1914

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



8

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.