RANG002514G



Preliminary

1575.42 MHz GPS Active Antenna



Key Features:

Center Frequency: 1575.42 MHz (+/-3 MHz)

High Gain: 29 dB Low Noise Figure 1.5 dB

Single DC Supply: 15.5 mA @ +3 V Built-in Functions: Built-in filter, Bias-T

Package: Waterproof, magnetic mount, 5 meter cable

Note: Other types of connectors are available upon request

Product Specifications¹: (at +25°C)

| Testing Item | Test Condition | Min | Nom | Max | Unit |
|------------------------------------|---|----------------------|----------|---------|--------|
| Antenna Specifications | | | | · | |
| Center Frequency (Fo) | | 1572.42 | 1575.42 | 1578.42 | MHz |
| Frequency Bandwidth (BW) | | 10 | | | MHz |
| VSWR | 1575.42 MHz | | 1.5:1 | | |
| Off Band Attenuation | Fo +/- 100 MHz | 30 | | | dB |
| Impedance | | | 50 | | ohms |
| Peak Gain | Based on 7x7 cm ground plane | | 5 | | dBic |
| Gain Coverage | -90° < 0 < +90° (over 75% Volume) | -4 | | | dBic |
| Polarization | | | RHCP | | |
| LNA Specifications | | | | | |
| Gain (G) | 1575.42 MHz | | 29 | | dB |
| Noise Figure (NF) | 1575.42 MHz | | 1.5 | | dB |
| VSWR | 1575.42 MHz | | | 2.0:1 | |
| DC Voltage | | 2.7 | 3.0 | 5.3 | V |
| DC Current | | | 15.5 | | mA |
| Environmental Specification | n | | | | |
| Working Temperature | | -25 | | +65 | °C |
| Storage Temperature | | -45 | | +185 | °C |
| Vibration | Sine sweep (0-pk) 10~50~10 Hz each axis | | 1 | | g |
| Humidity | | 95% | | 100% | RH |
| Weatherproof | | | 100% | | |
| MTBF | | | TBD | | |
| Mechanical Specification | | | | | |
| Weight | | | | 100 | gram |
| Size | | | 40x35x13 | | mm |
| Cable | | | 5 | | meters |
| Connector | | Right Angle SMA male | | | |
| Mounting | | Magnetic base | | | |
| Color | | Black | | | |

Available exclusively from Richardson RFPD - 800-737-6937 (U.S. & Canada) - 630-208-2700 (International) Or visit www.richardsonrfpd.com. See important product notice on last page of this document.

| Internal Richardson Document # | Origination Date: | Rev: 3P | Dogg 1/2 | |
|--------------------------------|-------------------|------------------|----------|--|
| | November 2005 | Date: March 2010 | Page 1/3 | |

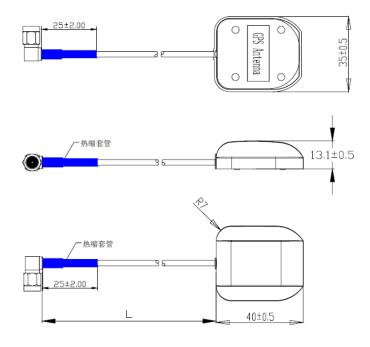
¹ Specifications are subject to change without notice.

RANG002514G

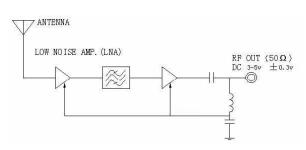


Preliminary

Outline Drawing (in mm)



Block Diagram



Ordering Information

| Part Number | RANG002514G |
|-------------|-------------|
|-------------|-------------|

Available exclusively from Richardson RFPD - 800-737-6937 (U.S. & Canada) - 630-208-2700 (International) Or visit www.richardsonrfpd.com. See important product notice on last page of this document.

RANG002514G



Preliminary

Richardson RFPD, Inc.

40W267 Keslinger Road P.O. Box 307 LaFox, IL 60147

Telephone: (800) 737-6937

(630) 208-2700

Fax: (630) 208-2662 Internet: www.richardsonrfpd.com

IMPORTANT NOTICE

RICHARDSON RFPD, INC. AND ITS AFFILIATES RESERVE THE RIGHT TO MAKE CHANGES TO THE PRODUCT(S) OR INFORMATION CONTAINED HEREIN WITHOUT NOTICE. RICHARDSON RFPD, INC. ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR IN THIS DOCUMENT.

WARRANTY INFORMATION APPLICABLE TO THE PRODUCT IDENTIFIED HEREIN IS AVAILABLE UPON REQUEST. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A WARRANTY, REPRESENTATION OR GUARANTEE OF ANY KIND. RICHARDSON RFPD, INC. EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND/OR IMPLIED INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, AND OF FITNESS FOR A PARTICULAR PURPOSE, USE OR APPLICATION.

NO PART OF THIS DOCUMENT MAY BE COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT THE PRIOR WRITTEN CONSENT OF RICHARDSON RFPD, INC.

WARNING

RICHARDSON RFPD, INC. PRODUCTS ARE NOT INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS. USE OF A RICHARDSON RFPD, INC. PRODUCT IN ANY SUCH APPLICATION WITHOUT WRITTEN CONSENT IS PROHIBITED.

Available exclusively from Richardson RFPD - 800-737-6937 (U.S. & Canada) - 630-208-2700 (International) Or visit www.richardsonrfpd.com. See important product notice on last page of this document.