

# GPS Active Antenna Module- Adhesive Mount

## APAMP-109

RoHS/RoHS II compliant

Lead in copper alloy exemption (6c); and Lead in glass exemption (7c-I)



50.6 X 50.6 X 15.1mm

MSL level: Not Applicable

### FEATURES:

- High Reliability/Sensitivity
- Compact Size
- Easy to install (adhesive base tape)
- ROHS Compliant

### TYPICAL APPLICATIONS:

- Automotive Navigation
- Automotive Monitoring
- Personal Tracking

### STANDARD SPECIFICATIONS:

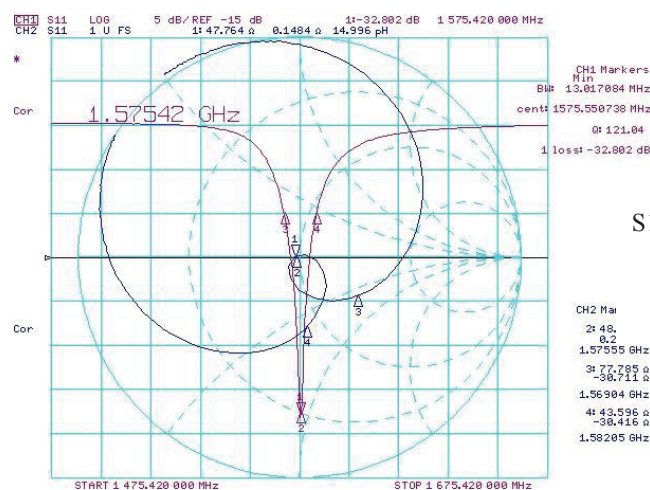
#### Antenna

| Parameters               | Min.    | Typ.    | Max.    | Units    | Note                               |
|--------------------------|---------|---------|---------|----------|------------------------------------|
| Frequency                | 1574.40 | 1575.42 | 1576.44 | MHz      |                                    |
| Bandwidth                | 10.0    |         |         | MHz      |                                    |
| VSWR at Center Frequency |         |         | 1.5:1   |          |                                    |
| Polarization Model       | RHCP    |         |         |          | (Right Hand Circular Polarization) |
| Impedance                |         | 50      |         | $\Omega$ |                                    |
| Gain                     |         | 5       |         | dBic     | (Based on 70× 70mm ground plane)   |
| Operating Temperature    | -40     |         | +80     | °C       |                                    |
| Storage Temperature      | -45     |         | +85     | °C       |                                    |

#### Low Noise Amplifier (LNA)

| Parameters   | Min.    | Typ.    | Max.    | Units | Note           |
|--------------|---------|---------|---------|-------|----------------|
| Frequency    | 1574.40 | 1575.42 | 1576.44 | MHz   |                |
| DC Voltage   | 2.5     |         | 3.5     | V     |                |
| Gain         | 25      | 26      | 28      | dB    | (+25°C ± 10°C) |
| Output VSWR  |         |         | 2.0     |       |                |
| Noise Figure |         |         | 1.5     |       | (+25°C ± 10°C) |
| DC current   |         | 10      | 12.5    | mA    | (At 3.0V)      |

### ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



S11: Input VSWR

Test condition: 39x39mm ground

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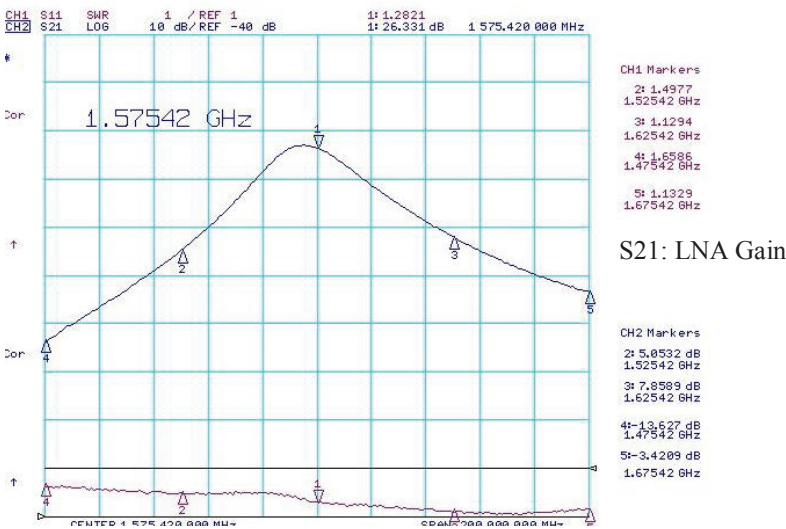
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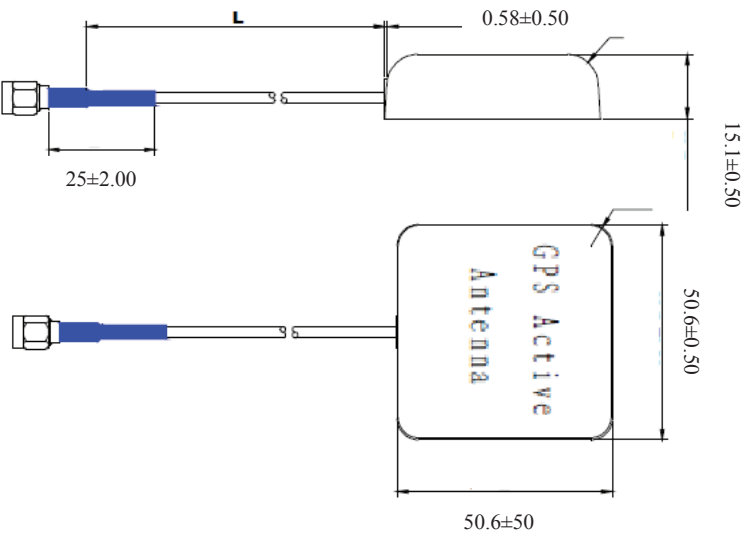
50.6 X 50.6 X 15.1mm

## LNA REFLECTION PROFILE



Test condition: DC 3.3V

## OUTLINE DRAWING:



Side View

Bottom View

Unit:mm

| Parameters       | Description        |
|------------------|--------------------|
| L (Cable Length) | 300±10cm           |
| Antenna          | Dielectric Ceramic |
| RF Cable         | RG174              |
| PCB              | FR4                |
| RF Connector     | SMA-J3             |
| Shielding        | Tinplate           |
| Thickness        | 15.5mm             |
| Mounting Type    | Adhesive Tape      |

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50.6 X 50.6 X 15.1mm

## PRODUCT IMAGE:



## PACKAGING:

Each 475 x 215 x 215 mm size carton includes 100 pieces of antenna.



### CAUTION:

- (1) Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
- (2) Do not expose the component to open flame.
- (3) This specification applies to the functionality of the component as a single unit. Please insure the component is thoroughly evaluated in the application circuit.

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