GPS Active Antenna Module - Adhesive Mount



APAMP-108

MSL level: Not Applicable

FEATURES:

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

STANDARD SPECIFICATIONS:

Antenna

TYPICAL APPLICATIONS:

RoHS/RoHS II compliant

- Automotive Navigation
- Automotive Monitoring
- Personal Tracking

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

| Antonna | | | | | |
|-----------------------|---------|---------|---------|-------|------------------------------------|
| Parameters | Min. | Тур. | Max. | Units | Note |
| Center Frequency | 1574.40 | 1575.42 | 1576.44 | MHz | |
| Bandwidth | 10.0 | | | MHz | |
| VSWR | | | 1.5:1 | | |
| Polarization Model | | RHCP | | | (Right Hand Circular Polarization) |
| Impedance | | 50 | | Ω | |
| 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. | Тур. | Max. | Units | Note |
|---------------------------------|---------|---------|---------|-------|--|
| Frequency | 1574.40 | 1575.42 | 1576.44 | MHz | |
| DC Voltage | 3.0 | | 5.0 | V | |
| Gain | 25 | 27 | 29 | dB | (Without cable $\pm 25^{\circ}C \pm 10^{\circ}C$) |
| Out-of-band Rejection (Absolute | 25 | | | dB | (fo+100MHz) |
| Value) | 40 | | | dB | (fo-100MHz) |
| Output VSWR | | | 2.0 | | |
| Noise Figure | | | 1.5 | | $(+25^{\circ}C \pm 10^{\circ}C)$ |
| DC current | | 13.5 | 15.5 | mA | (At 5.0V) |

• Overall (Complete Module including RF connector)

| Parameters | Min. | Тур. | Max. | Units | Note |
|-------------|---------|---------|---------|-------|----------------------------------|
| Frequency | 1574.40 | 1575.42 | 1576.44 | MHz | |
| Output VSWR | | | 2.0 | | |
| Impedance | | 50 | | Ω | |
| Gain | 25 | 27 | 29 | dBic | (Based on 70× 70mm ground plane) |





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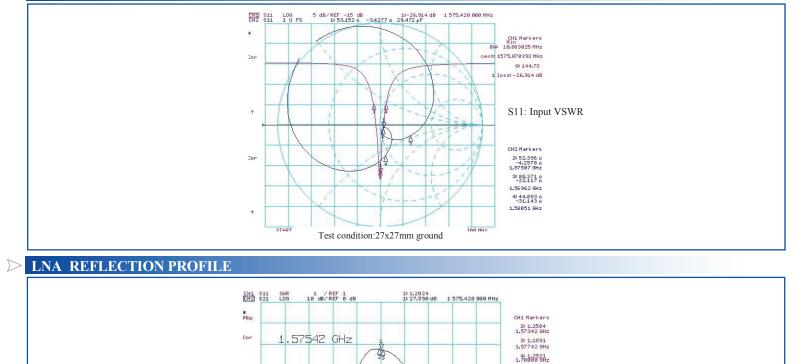


> ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS

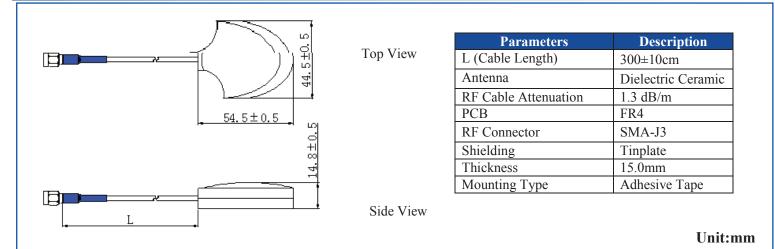
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Cor

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OUTLINE DRAWING:



Test condition: DC 3.0V

ABRACON IS ISO9001:2008 CERTIFIED



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S21: LNA Gain

CH2 Markers

2: 27.743 dB 1.57342 GHz 3: 27.384 dB 1.57742 GHz 4:-4.4799 dB 1.70000 GHz

SPAN 250 000 000 MH

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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.

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.





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