

GPS Active Antenna Module

APAMPJ-132

RoHS/RoHS II compliant

Lead in copper alloy exemption (6c); and Lead in glass exemption (7c-1)

 ESD Sensitive



41.0 X 34.0 X 14.5mm

MSL level: Not Applicable

FEATURES:

- GPS External Module 1575.42MHz
- Compact design 41 x 34 x 14.5mm
- Patch with low gain LNA
- Low gain to reduce chance of saturation of RFIC
- Gain (12dBm min / 16dBm max)
- Out of band rejection 49dB min
- DC Supply (2.7V min / 5.5V max)
- Easy to install (adhesive tape base)
- RoHS/RoHS II compliant
- 2J Technology

TYPICAL APPLICATIONS:

- Automotive Navigation
- Tracking Systems
- GPS Navigation in urban canyons

STANDARD SPECIFICATIONS:

Antenna

| Parameters | Min. | Typ. | Max. | Units | Note |
|--------------------------|------|---------|-------|----------|------------------------------------|
| Center Frequency | | 1575.42 | | MHz | |
| Bandwidth | 10 | | | MHz | |
| VSWR at Center Frequency | | | 1.5:1 | | |
| Polarization Model | | RHCP | | | (Right Hand Circular Polarization) |
| Impedance | | 50 | | Ω | |
| Gain (Zenith) | | 4.0 | | dBic | (Based on 70x 70mm ground plane) |

Low Noise Amplifier (LNA)

| Parameters | Min. | Typ. | Max. | Units | Note |
|--|------|---------|------|-------|-----------------------------|
| Center Frequency | | 1575.42 | | MHz | |
| DC Voltage | 2.7 | | 5.5 | V | |
| Gain | 12 | 14 | 16 | dB | (Without cable +25°C± 10°C) |
| Out-of-band Rejection (Absolute Value) | 49 | | | dB | (fo+100MHz) |
| | 21 | | | dB | (fo-100MHz) |
| Output VSWR | | | 2:1 | | |
| Noise Figure | | 1.15 | 1.8 | | |
| DC current | 15 | | 25 | mA | |
| Power | | | 138 | mW | |

Overall (complete module including RF connector)

| Parameters | Min. | Typ. | Max. | Units | Note |
|-----------------------|------|---------|------|----------|----------------------------------|
| Center Frequency | | 1575.42 | | MHz | |
| Gain | 12 | 14 | 16 | dBic | (Based on 70x70mm ground plane.) |
| Output VSWR | | | 2:1 | | |
| Impedance | | 50 | | Ω | |
| Operating Temperature | -40 | | +85 | °C | |

GPS Active Antenna Module

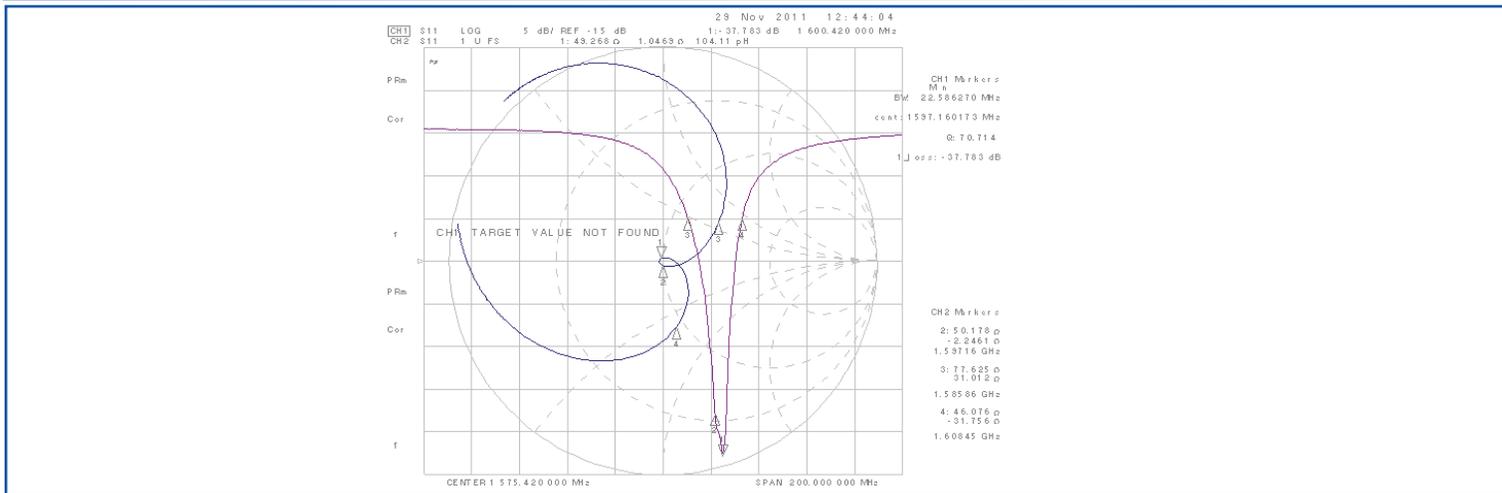
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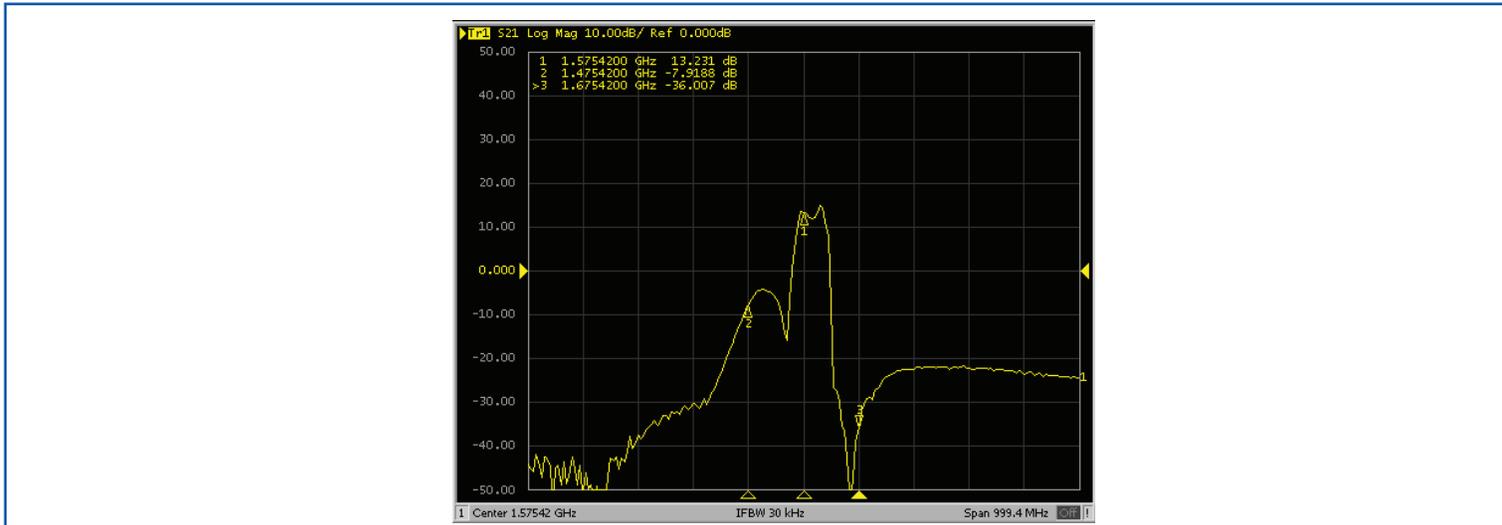


41.0 X 34.0 X 14.5mm

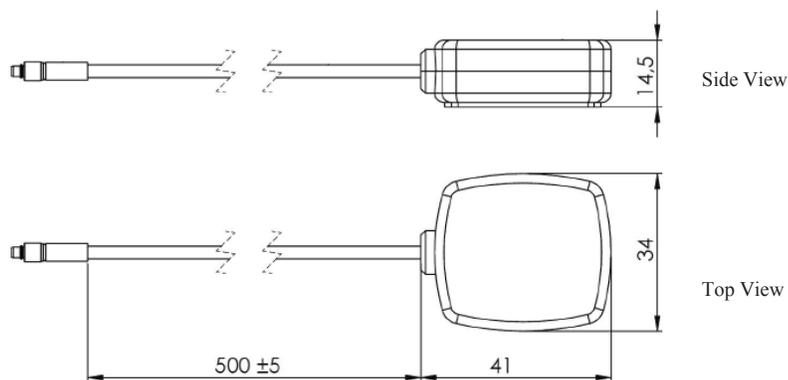
ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



ANTENNA S21 GAIN



OUTLINE DRAWING:



| Parameters | Description |
|----------------------|------------------------------|
| L (Cable Length) | 500±5cm |
| Antenna | Dielectric Ceramic |
| RF Cable Attenuation | 1.3 dB/m |
| RF Cable | Coax. cable RG174U |
| PCB | FR4 |
| RF Connector | MMCX, Male, Straight, Nickel |
| Housing | Black ABS |
| Mounting | Adhesive Tape |

Unit:mm

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2 Faraday, Suite# B | Irvine | CA 92618 Revised: 04.28.15
 Ph. 949.546.8000 | Fax. 949.546.8001
 Visit www.abracon.com for Terms and Conditions of Sale

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PACKAGING:

Antenna is packaged in 100x200x0.1mm size poly bag. There are 300pcs in 465x310x250mm size box.



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 them.
- (2) Do not expose the component to open flame.
- (3) This specification applies to the functionality of the component as a single unit.
Please evaluate your specifications before mounting this product.

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2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 04.28.15**
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