GPS Active Antenna Module- Magnet Mount

48.6 X 39.2 X 15.2mm

APAMP-122

RoHS/RoHS II compliant
Lead in copper alloy exemption (6c); and Lead in glass exemption (7c-I)

MSL level: Not Applicable

FEATURES:

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

TYPICAL APPLICATIONS:

- Automotive Navigation
- Automotive Monitoring
- Personal Tracking

STANDARD SPECIFICATIONS:

Antenna

Parameters	Min.	Typ.	Max.	Units	Note
Center 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		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.	Typ.	Max.	Units	Note
Center Frequency	1574.40	1575.42	1576.44	MHz	
DC Voltage	3.0		5.0	V	
Gain	25	27	29	dB	(Without cable +25 ± 10)
Out-of-band Rejection (Absolute Value)	25			dB	(fo+100MHz)
	40			dB	(fo-100MHz)
Output VSWR			2.0		
Noise Figure			1.5		
DC current		13.5	15.5	mA	(At 5.0V)

Overall (complete module including RF connector)

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency	1574.40	1575.42	1576.44	MHz	
Gain	25	27	29	dBic	(Based on 70x70mm ground plane.)
Output VSWR			2.0		
Impedance		50		Ω	

30332 Esperanza, Rancho Santa Margarita, California 92688
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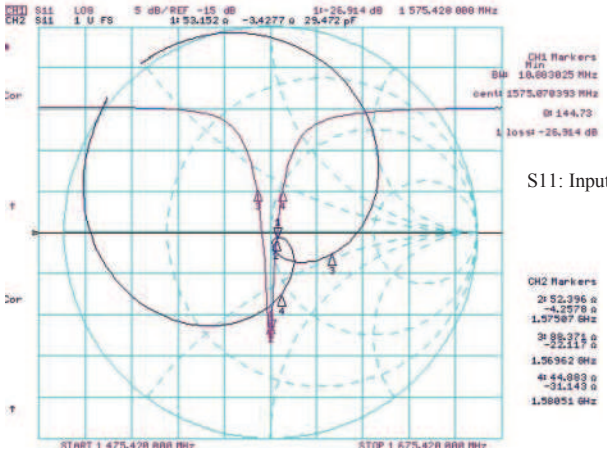
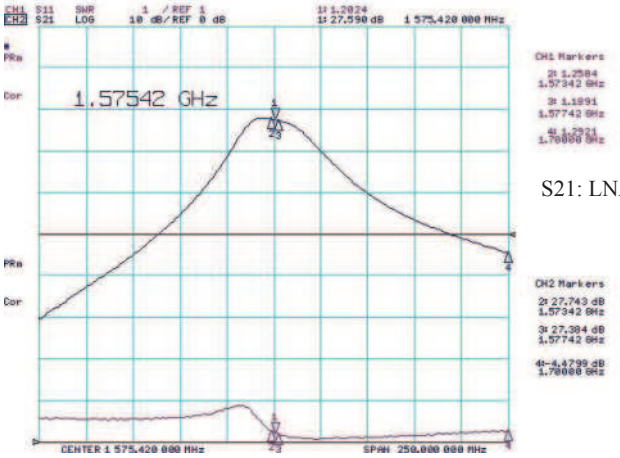
ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



S11: Input VSWR

Test condition:27x27mm ground

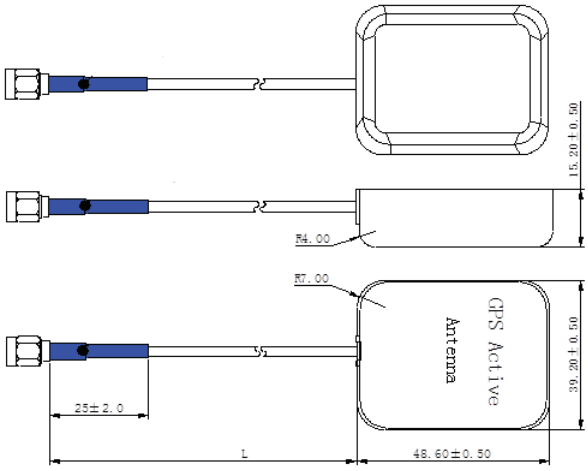
LNA REFLECTION PROFILE



S21: LNA Gain

Test condition: DC 3.0V

OUTLINE DRAWING:



Top View

Side View

Bottom View

Parameters	Description
L (Cable Length)	300±10cm
Antenna	Dielectric Ceramic
RF Cable Attenuation	1.3 dB/m
PCB	FR4
RF Connector	SMA-J3
Shielding	Tinplate
Thickness	15.0mm
Mounting Type	Magnet Base

Unit:mm

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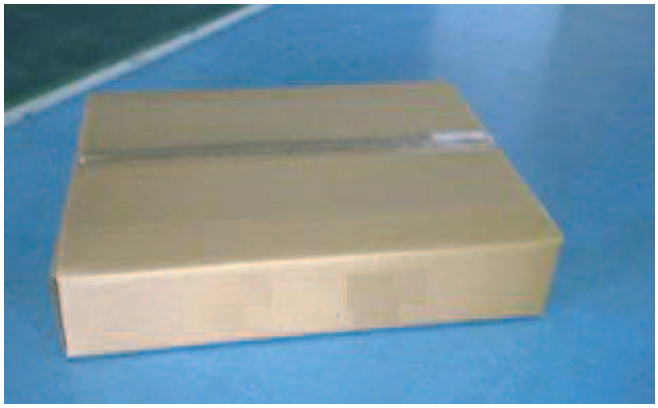
PRODUCT IMAGE:

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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