GPS Active Antenna Module - Adhesive Mount

APAMP-108

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 (adhesive tape base)
- ROHS Compliant

TYPICAL APPLICATIONS:

- Automotive Navigation
- Automotive Monitoring
- · Personal Tracking

> STANDARD SPECIFICATIONS:

Antenna

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 $+25^{\circ}C \pm 10^{\circ}C$)
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)





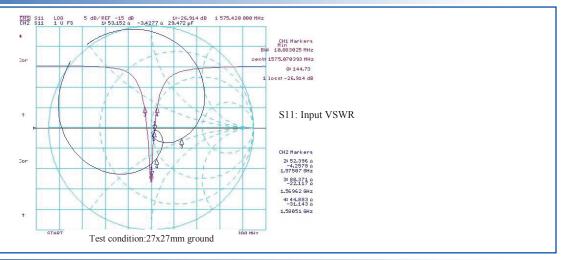
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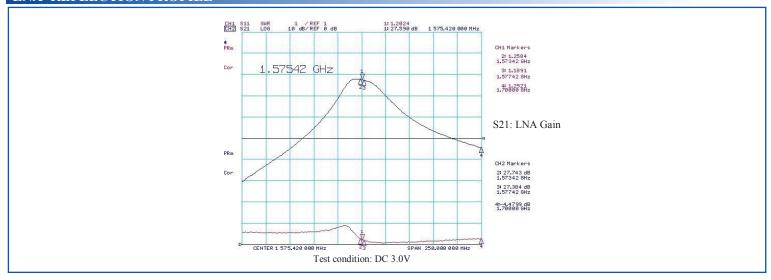
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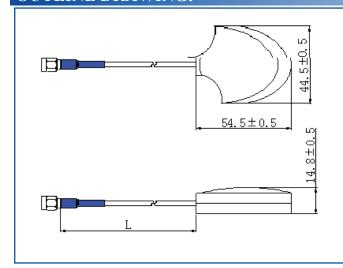
> ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



LNA REFLECTION PROFILE



OUTLINE DRAWING:



Top 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	Adhesive Tape

Side View

Unit:mm

ABRACON IS ISO9001:2008 CERTIFIED



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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.



