

GPS+GLONASS Active Antenna Module - Magnet Base



44.0 x 14.5mm

APAMPG-130



ESD Sensitive

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

RoHS/RoHS II compliant

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
Frequency Range	1572.42	1575.42	1578.42	MHz	(For GPS)
	1594	1602	1610	MHz	(For GLONASS)
Bandwidth	8.0			MHz	(For GPS)
	16.0			MHz	(For GLONASS)
VSWR at Center Frequency			1.5:1		
Polarization Model	RHCP				(Right Hand Circular Polarization)
Impedance		50		Ω	
Gain		5		dBi	(Based on 70x 70mm ground plane)
Operating Temperature	-40		+80	$^{\circ}\text{C}$	
Storage Temperature	-45		+85	$^{\circ}\text{C}$	

Low Noise Amplifier (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
Frequency Range	1572	1595	1618	MHz	
DC Voltage	2.8		5.0	V	
Gain		30		dB	(without cable +25 $^{\circ}\text{C}$ \pm 10 $^{\circ}\text{C}$)
Output VSWR			2.0		
Noise Figure			1.5		(+25 $^{\circ}\text{C}$ \pm 10 $^{\circ}\text{C}$)
DC current		13.5		mA	(At 3.0V)
Out-Band Rejection	20			dB	(fo+100MHz)
	25			dB	(fo-100MHz)

Overall (Complete Module including RF Connector)

Parameters	Min.	Typ.	Max.	Units	Note
Frequency Range	1572	1595	1618	MHz	
Output V.W.S.R			2.0		
Impedance		50		Ω	
Peak Gain			30	dBic	
Operating Temperature	-40		+80	$^{\circ}\text{C}$	
Storage Temperature	-45		+85	$^{\circ}\text{C}$	

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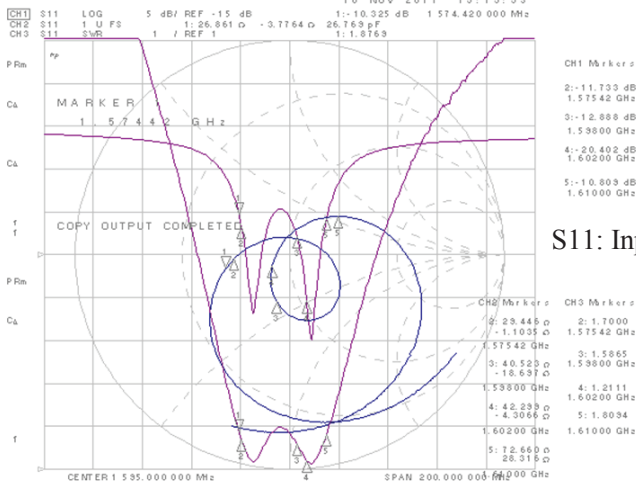
RoHS/RoHS II compliant



44.0 x 14.5mm

TEST CONDITIONS & TEST SETUP:

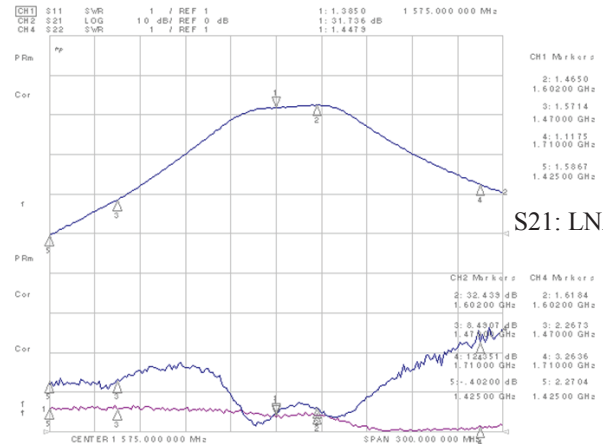
Antenna's Impedance and Return-Loss Characteristics



S11: Input VSWR

Test condition: 27x27mm ground

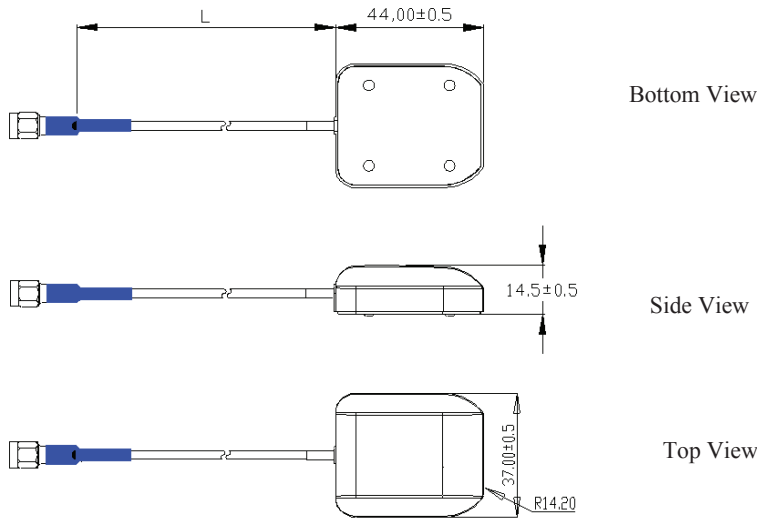
LNA Reflection Profile



S21: LNA Gain

Test condition: DC 3.0V

OUTLINE DIMENSION:



Parameters	Description
L (Cable Length)	400±10cm
RF Cable Attenuation	1.3dB/m
Antenna	Dielectric Ceramics
PCB	FR4
RF Connector	SMA-J3
Shielding	Tinplate
Thickness	15.5mm
Mounting Type	Magnet Base

Unit: mm

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PRODUCT IMAGE:



PACKAGING:

Each 630 x 460 x 105mm 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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