

ECN/PCN No.: R0045

For Manufacturer			
Product Description: GPS Active Antenna Module	Abracon Part Number / Part Series: APAMP-114	<input type="checkbox"/> Documentation only <input type="checkbox"/> ECN <input checked="" type="checkbox"/> EOL	<input type="checkbox"/> Series <input checked="" type="checkbox"/> Part Number
Affected Revision: Rev B	New Revision: EOL	Application:	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety
Prior to Change: N/A			
After Change: EOL			
Cause/Reason for Change: Discontinued by factory due to EOL for LNA			
Change Plan			
Effective Date: 06/18/2021	Additional Remarks: N/A		
Change Declaration: EOL			
Issued Date: 06/18/2021	Issued By: <i>Nicholas El-Takach</i>	Issued Department: Engineering	
Approval: <i>Syed Raza</i> Engineering VP	Approval: <i>Reuben Quintanilla</i> Quality Director	Approval: <i>Ying Huang</i> Purchasing Director	
For Abracon EOL only			
Last Time Buy (if applicable): No last time buy.		Alternate Part Number / Part Series: N/A	
Additional Approval:	Additional Approval:	Additional Approval:	
Customer Approval (If Applicable)			
Qualification Status: <div style="text-align: center;"><input type="checkbox"/> Approved <input type="checkbox"/> Not accepted</div> <i>Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.</i>			
Customer Part Number:		Customer Project:	
Company Name:	Company Representative:	Representative Signature:	
Customer Remarks:			

GPS Active Antenna Module - Adhesive Mount



26.0 X 23 X 12mm

APAMP-114

RoHS/RoHS II compliant
Lead in copper alloy exemption (6c); and Lead in glass exemption (7c-1)

MSL level: Not Applicable

FEATURES:

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

TYPICAL APPLICATIONS:

- Automotive Navigation
- Automotive Monitoring
- Personal Tracking

STANDARD SPECIFICATIONS:

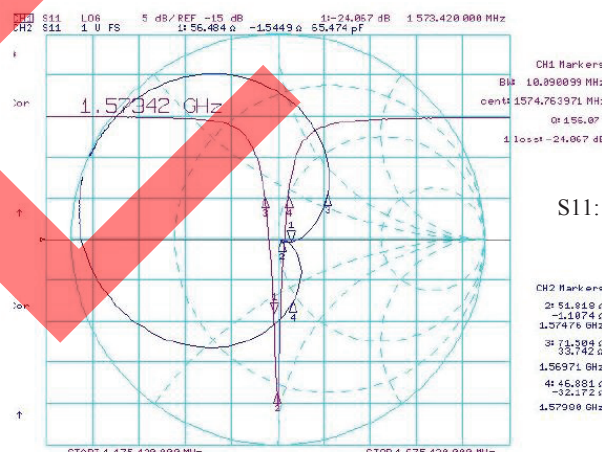
Antenna

Parameters	Min.	Typ.	Max.	Units	Note
Frequency	1574.40	1575.42	1576.44	MHz	
Bandwidth	5.0			MHz	
VSWR at Center Frequency			1.5:1		
Polarization Model	RHCP				(Right Hand Circular Polarization)
Impedance		50		Ω	
Gain		1		dBic	(Based on 70x70mm 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	1574.40	1575.42	1576.44	MHz	
DC Voltage	2.5		6.0	V	
Gain	24	26	28	dB	(+25 $^{\circ}\text{C} \pm 10^{\circ}\text{C}$)
Output VSWR			2.0		
Noise Figure			1.6		(+25 $^{\circ}\text{C} \pm 10^{\circ}\text{C}$)
DC current		11	13	mA	(At 5.0V)

ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



Test condition: 15x15mm ground

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GPS Active Antenna Module - Adhesive Mount

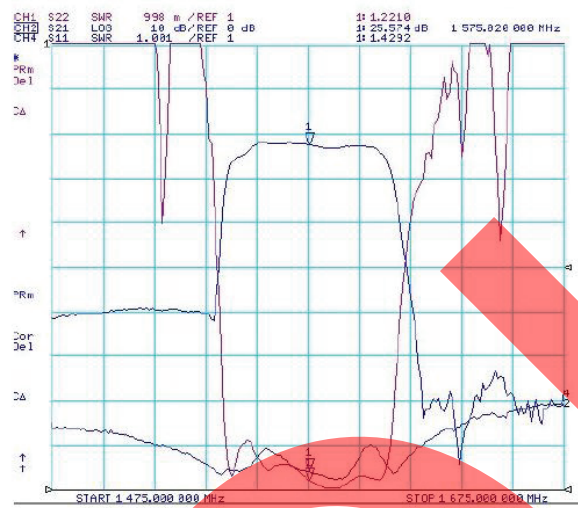


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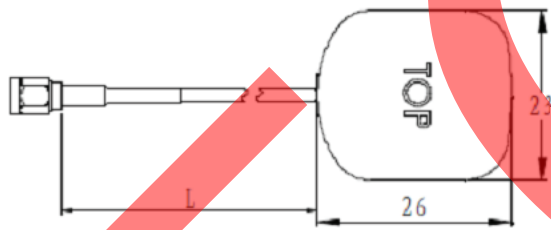
LNA REFLECTION PROFILE



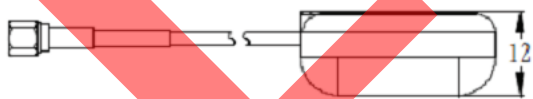
S21: LNA Gain

Test condition: DC 5.0V

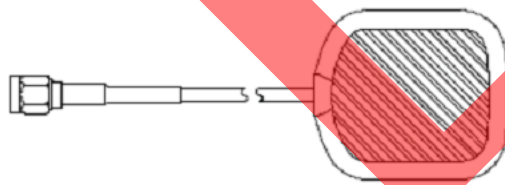
OUTLINE DRAWING:



Top View



Side View



Bottom View

Parameters	Description
L (Cable Length)	300±10cm
Antenna	Dielectric Ceramic
RF Cable	RG174
PCB	FR4
RF Connector	SMA-J3
Shielding	Tinplate
Thickness	12mm
Mounting Tape	Adhesive Tape

Unit:mm

GPS Active Antenna Module - Adhesive Mount

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26.0 X 23 X 12mm

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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