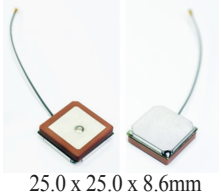
GPS / GLONASS Active Internal Patch

APAMPGJ-141

RoHS/RoHS II Compliant



25.0 x 25.0 x 8.6mm

MSL level: Not Applicable

FEATURES:

- Active GPS and GLONASS Module (1575.42 and 1592 - 1610 MHz
- Internal Module with Pre-Filter and LNA Gain block
- Patch Gain 2dBic (min) 3dBic (max),
- LNA Gain 23dB (3V), 24dB (5V)
- Wide Supply range (2.7V ~ 5.5V)
- VSWR 1.5:1
- Compact size (25mm x 8.6mm x 25mm)
- RHCP
- U.FL connector and 100mm micro-coax (1.13mm)
- RoHS/RoHS II compliant
- 2J Technology

TYPICAL APPLICATIONS:

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

STANDARD SPECIFICATIONS:

Antenna

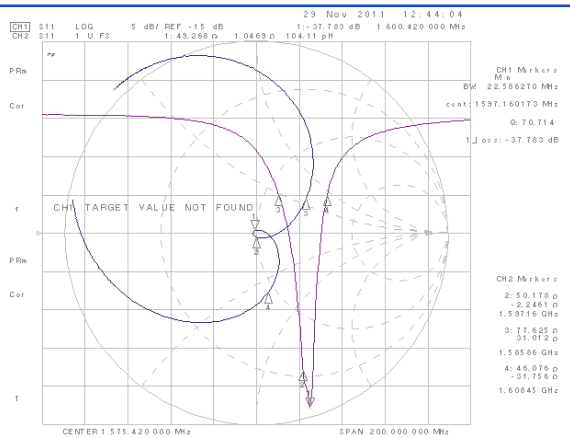
Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency		1575.42		MHz	GPS (In free Space)
	1592		1610	MHz	GLONASS
Bandwidth	10			MHz	GPS
	18			MHz	GLONASS
VSWR			1.5:1		(In free Space)
Polarization Model		RHCP			
Impedance		50		Ω	
Gain	2		3	dBic	(Based on 70× 70mm ground plane)
Operating Temperature	-40		+85	˚C	

Low Noise Amplifier (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency		1575.42		MHz	GPS
	1592		1610	MHz	GLONASS
DC Voltage	2.7		5.5	V	
Gain	21	23	25	dB	(at 3.0V)
	22	24	26	dB	(at 5.0V)
Output VSWR			2:1		
Noise Figure			2.5	dB	(Filter is placed before amplifier)
DC current	15	22	25	mA	(At 3.0V)
Power			138	mW	

Antenna's Impedance and Return-Loss Characteristics

(S11 and Impedance Smith Chart)



ABRACON IS ISO9001:2008 CERTIFIED

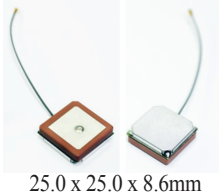
ABRACON LLC
The Power of Linking Together

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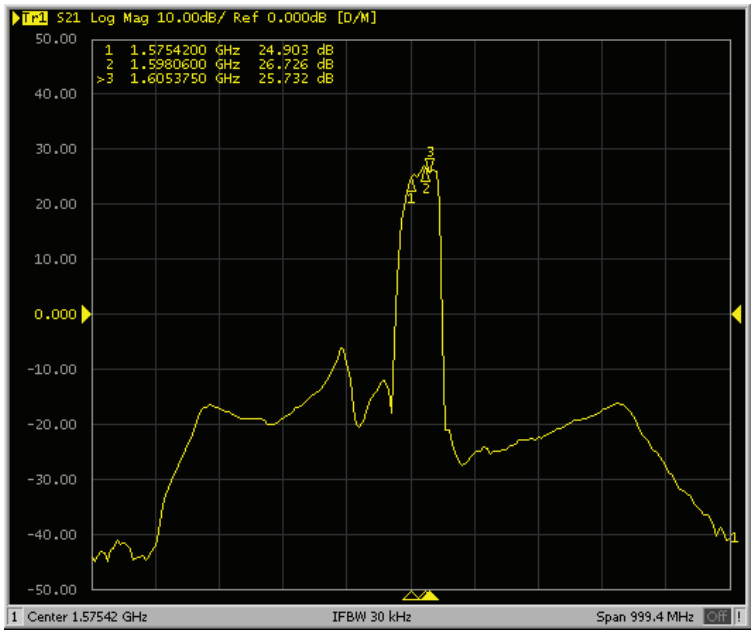
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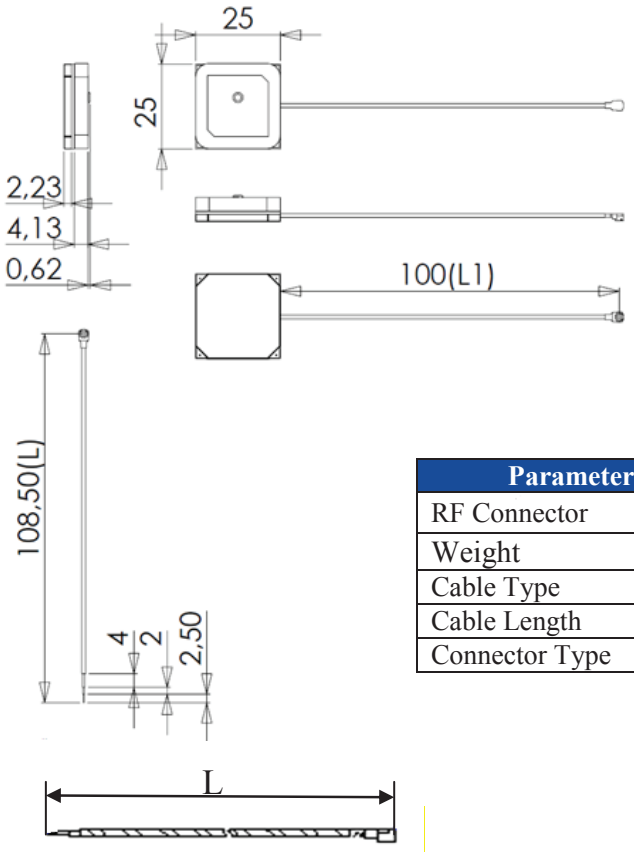
25.0 x 25.0 x 8.6mm

Antenna Gain (S21)



Antenna gain at 3V

OUTLINE DRAWING:



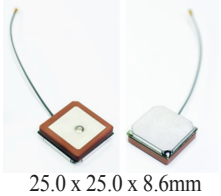
Parameters	Description
RF Connector	U.FL
Weight	14 g
Cable Type	Micro-coax, Φ1.13mm
Cable Length	L1=100±1.5mm, L=108.5mm
Connector Type	UFL

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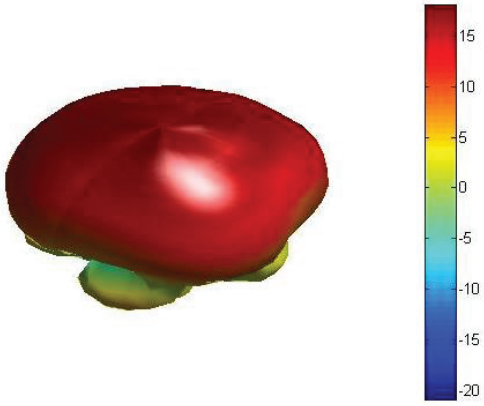
RoHS/RoHS II Compliant



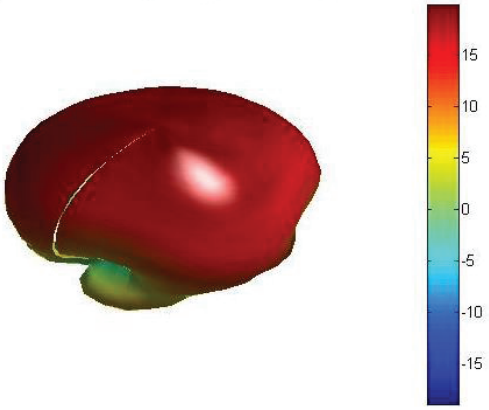
25.0 x 25.0 x 8.6mm

RADIATION PATTERN

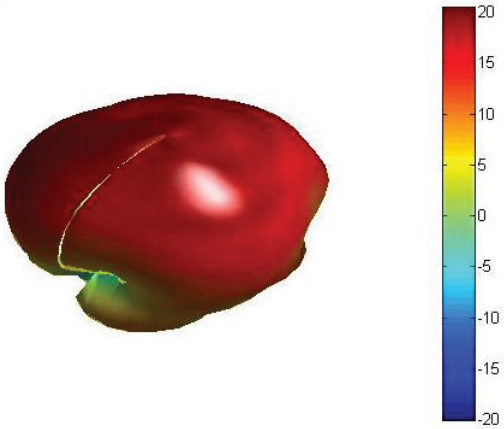
3D Radiation Pattern at 1.5754GHz, AZ=45, EL=45



3D Radiation Pattern at 1.5979GHz, AZ=45, EL=45



3D Radiation Pattern at 1.6054GHz, AZ=45, EL=45

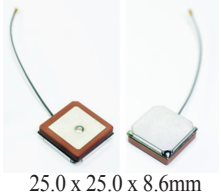


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RoHS/RoHS II Compliant



25.0 x 25.0 x 8.6mm

PACKAGING:

Each antenna is packed individually in a poly bag. 1000pcs is the suggested quantity per 465x310x250mm 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 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.

NOTE:

1) The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
2) ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
3) In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
4) When changing your production process, please notify ABRACON immediately.
5) 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.
6) All specifications and Marking will be subject to change without notice.

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