

# GPS+GSM Active Antenna Module

## APAMS-106

RoHS/RoHS II compliant

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



MSL level: Not Applicable

### FEATURES:

- Dual Band
- High Reliability/Sensitivity
- Compact Size, Easy to install
- ROHS Compliant

### TYPICAL APPLICATIONS:

- GPS navigation
- Vehicle tracking
- Telemetry Applications
- Asset tracking
- Emergency call systems

### STANDARD SPECIFICATIONS:

#### Antenna

Parameters	Min.	Typ.	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		$\Omega$	
Gain		5		dBic	(Based on 70× 70mm ground plane)

#### Low Noise Amplifier (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency	1574.40	1575.42	1576.44	MHz	
DC Voltage	2.5	3.0	3.5	V	
Gain	25	26	28	dB	(Without cable +25°C± 10°C)
Output VSWR			2.0		
Noise Figure			1.5		(+25°C ± 10°C)
DC current		10.5	12.5	mA	

#### Electrical Characteristics (GSM)

Parameters	Min.	Typ.	Max.	Units	Note
Working Frequency	806		960	MHz	
	1710		1880		
Peak Gain			-1	dBi	(@900MHZ)
			1		(@1800MHZ)
VSWR			2:1		
Impedance		50		$\Omega$	
Azimuth	Omni-Directional				
Polarization	Linear Polarization				



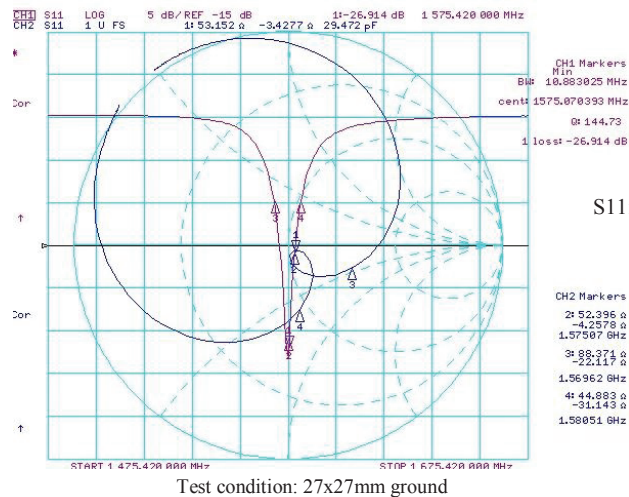
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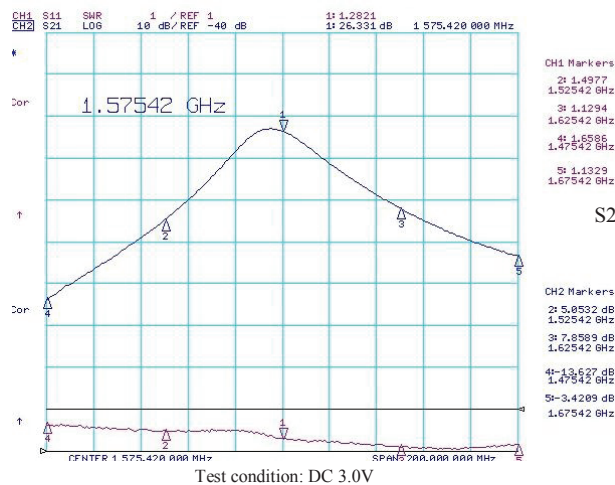


## ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



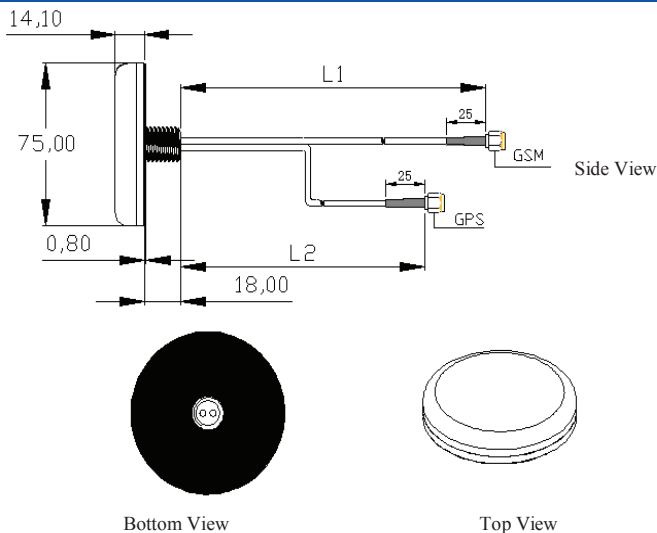
S11: Input VSWR

## LNA REFLECTION PROFILE



S21: LNA Gain

## OUTLINE DRAWING:



Parameters	Description
L1(Cable1 Length)	200±10cm
L2(Cable2 Length)	200±10cm
Antenna	Dielectric Ceramics
PCB	FR4
GPS RF Connector	SMA-J3
GSM RF Connector	SMA-J3
Shielding	Tinplate
Thickness	15mm
Housing Type	Y
Assemblage	Ultrasound Welding

Unit:mm

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## PRODUCT IMAGE:



## PACKAGING:

Each 450 x 400 x 300mm size carton includes 60 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.

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