

GPS Active Antenna Module

APAMPJ-132

RoHS/RoHS II compliant

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



41.0 X 34.0 X 14.5mm



MSL level: Not Applicable

FEATURES:

- GPS External Module 1575.42MHz
- Compact design 41 x 34 x 14.5mm
- Patch with low gain LNA
- Low gain to reduce chance of saturation of RFIC
- Gain (12dBm min / 16dBm max)
- Out of band rejection 49dB min
- DC Supply (2.7V min / 5.5V max)
- Easy to install (adhesive tape base)
- RoHS/RoHS II compliant

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	
Bandwidth	10			MHz	
VSWR at Center Frequency			1.5:1		
Polarization Model	RHCP				(Right Hand Circular Polarization)
Impedance		50		Ω	
Gain (Zenith)		4.0		dBic	(Based on 70x 70mm ground plane)

Low Noise Amplifier (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency		1575.42		MHz	
DC Voltage	2.7		5.5	V	
Gain	12	14	16	dB	(Without cable +25°C± 10°C)
Out-of-band Rejection (Absolute Value)	49			dB	(fo+100MHz)
	21			dB	(fo-100MHz)
Output VSWR			2:1		
Noise Figure		1.15	1.8		
DC current	15		25	mA	
Power			138	mW	

Overall (complete module including RF connector)

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency		1575.42		MHz	
Gain	12	14	16	dBic	(Based on 70x70mm ground plane.)
Output VSWR			2:1		
Impedance		50		Ω	
Operating Temperature	-40		+85	°C	

GPS Active Antenna Module

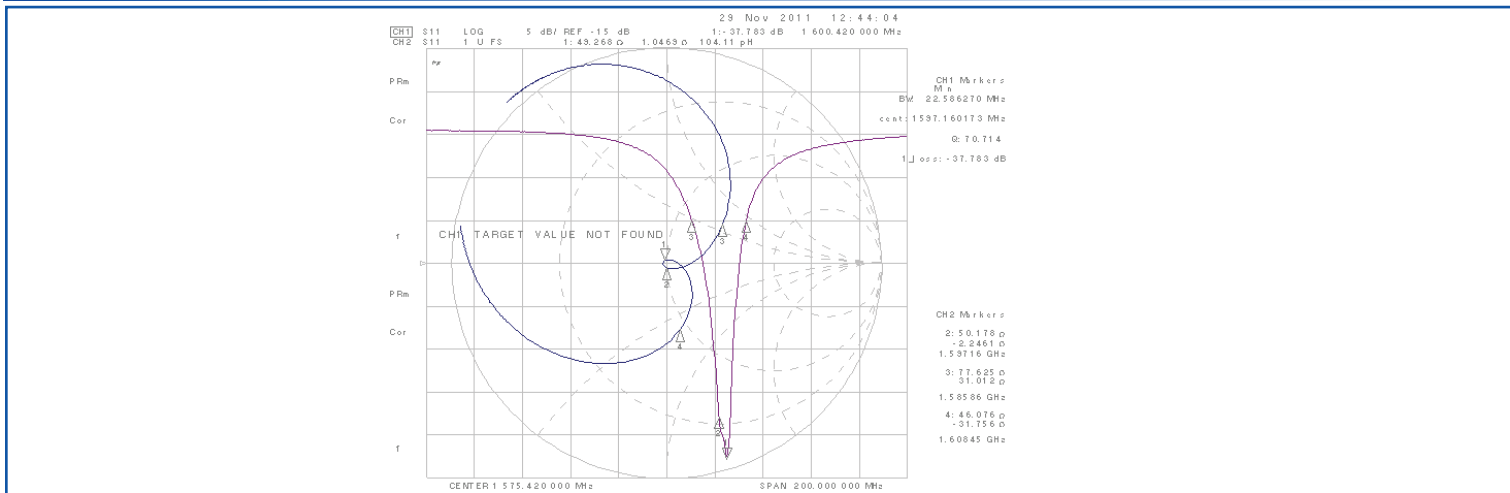
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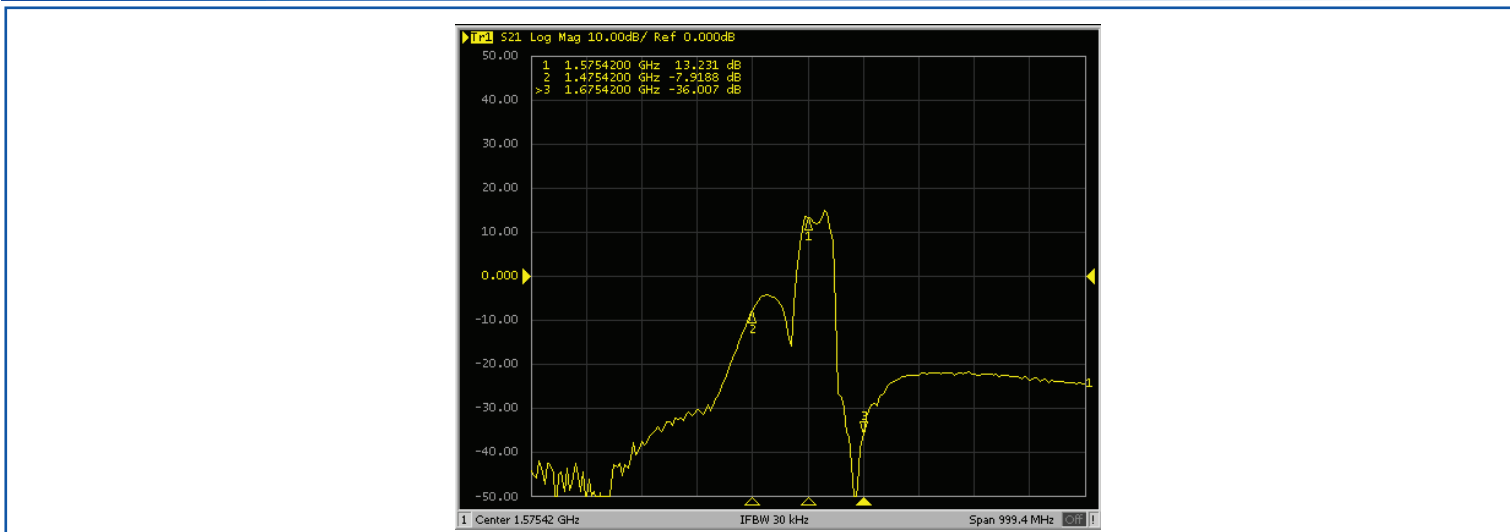


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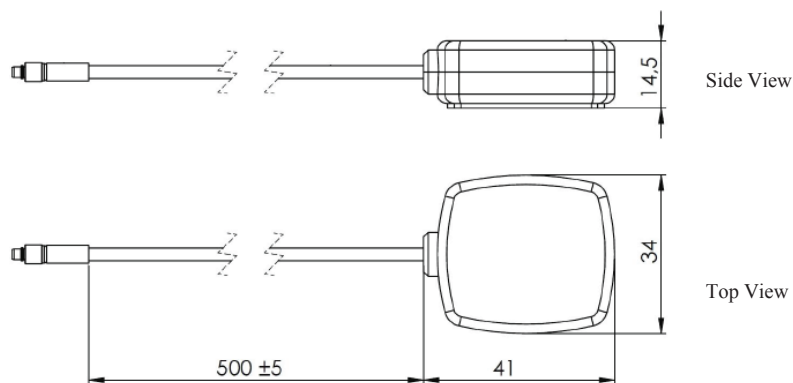
ANTENNA'S IMPEDANCE AND RETURN-LOSS CHARACTERISTICS



ANTENNA S21 GAIN



OUTLINE DRAWING:



Parameters	Description
L (Cable Length)	500±5cm
Antenna	Dielectric Ceramic
RF Cable Attenuation	1.3 dB/m
RF Cable	Coax. cable RG174U
PCB	FR4
RF Connector	MMCX, Male, Straight, Nickel
Housing	Black ABS
Mounting	Adhesive Tape

Unit:mm

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