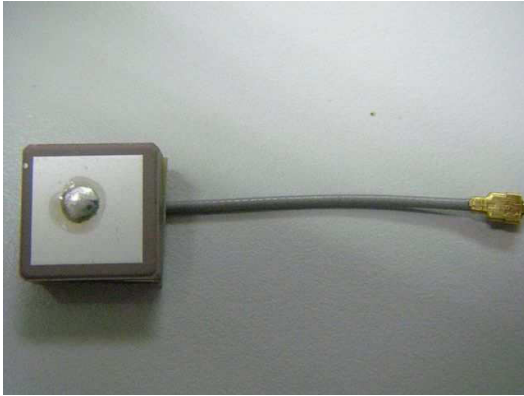


GPS Antenna Module

MODEL: GAM-12

Compact & Sensitive GPS Antenna Module with Excellent Signal Amplification for Mobile Applications



- Gain: 27 dB
- Ultra-high sensitivity
- Voltage: 2.8~3.7V DC
- 12.2mm (L) x 12.2mm (W) x 6.2mm (H)

GAM-12 is the most compact GPS antenna module currently available on the market, thanks to our cutting-edge technology that makes the device the tiniest possible without sacrificing performance. With comprehensive coverage almost all the way to the horizon, it performs excellently in foliage or urban canyon environment. Featuring diminutive but substantial enclosure plus unparalleled performance, **GAM-12** is compatible with almost every GPS receiver model available on the market and provides a perfect alternative for a vast range of GPS applications in the fields of AVL, vehicle navigation, aviation and military.

Features:

1. Microscopic & rigid structure suit well military and other applications demanding high degree of confidentiality.
2. High sensitivity.
3. Module board available for embedded applications.
4. Ideal for PDA, Handhelds and other computing devices running GPS applications.
5. High temperature stability.

Applications:

External Antenna for Handheld GPS / PDA / PC for GPS Navigation

Specifications:

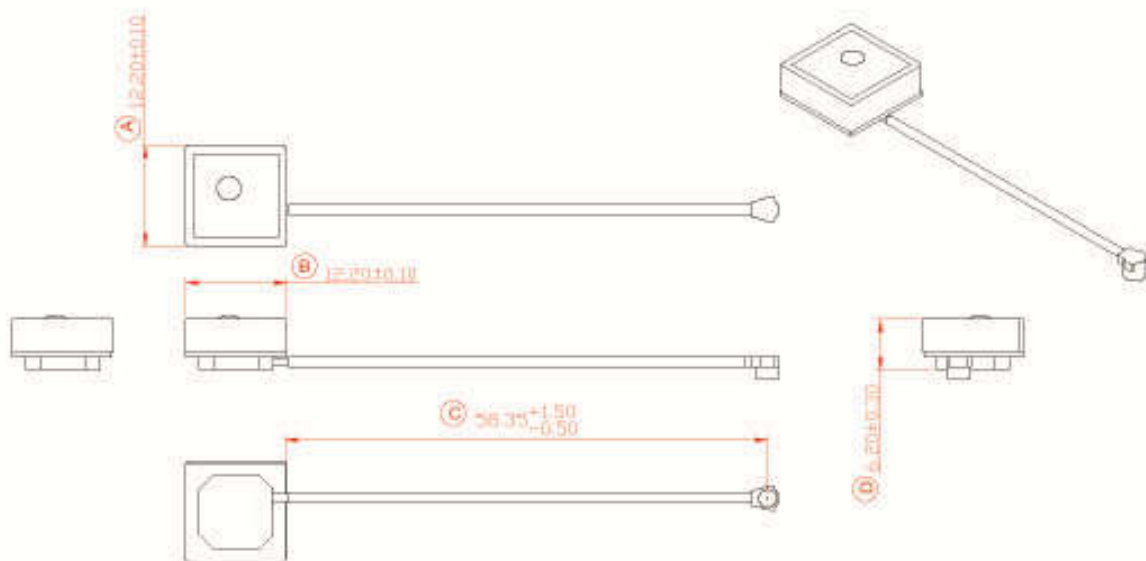
PHYSICAL CONDITION	
Dimension:	12.2mm (L) x 12.2mm (W) x 6.2mm
Weight:	4 g
Standard Mounting:	Solder
ANTENNA ELEMENT	
Center Frequency:	1575.42 MHz +/- 1.023 MHz

Polarization:	R.H.C.P. (Right Hand Circular Polarization)
Absolute Gain at Zenith:	-1 dBic
Axial Ratio:	3.0 dB Typ.
Output VSWR:	2.0 Max.
Output Impedance:	50 ohm
Ground size	50mm*50mm
LOW NOISE AMPLIFIER	
Center Frequency:	1575.42 MHz +/- 1.023 MHz
Gain:	27dB Typ.
Band Width:	4 MHz min. @S11-10 dB
Noise Figure:	1.5 Typ.
Supply Voltage:	2.8V~3.7 V DC
Current Consumption:	10 mA
Output Impedance:	50 ohm
CABLE & CONNECTOR	
RF Cable:	OD1.32, 1.13 as customized options
Pulling Strength:	6 Kg/5 sec. with molded plastics on connector end for strain relief (w/o cable loss)
Connector Available:	H.FL, u.FL, I.PEX, SMA, open or others are available in straight or right angle type.
Optional Adapters:	
ENVIRONMENTAL CONDITIONS	
Operating Temperature:	-40°C~+85°C
Storage Temperature:	-40°C~+90°C
Relative Humidity:	10~95% non-condensing

* This specification is subject to change without prior notice

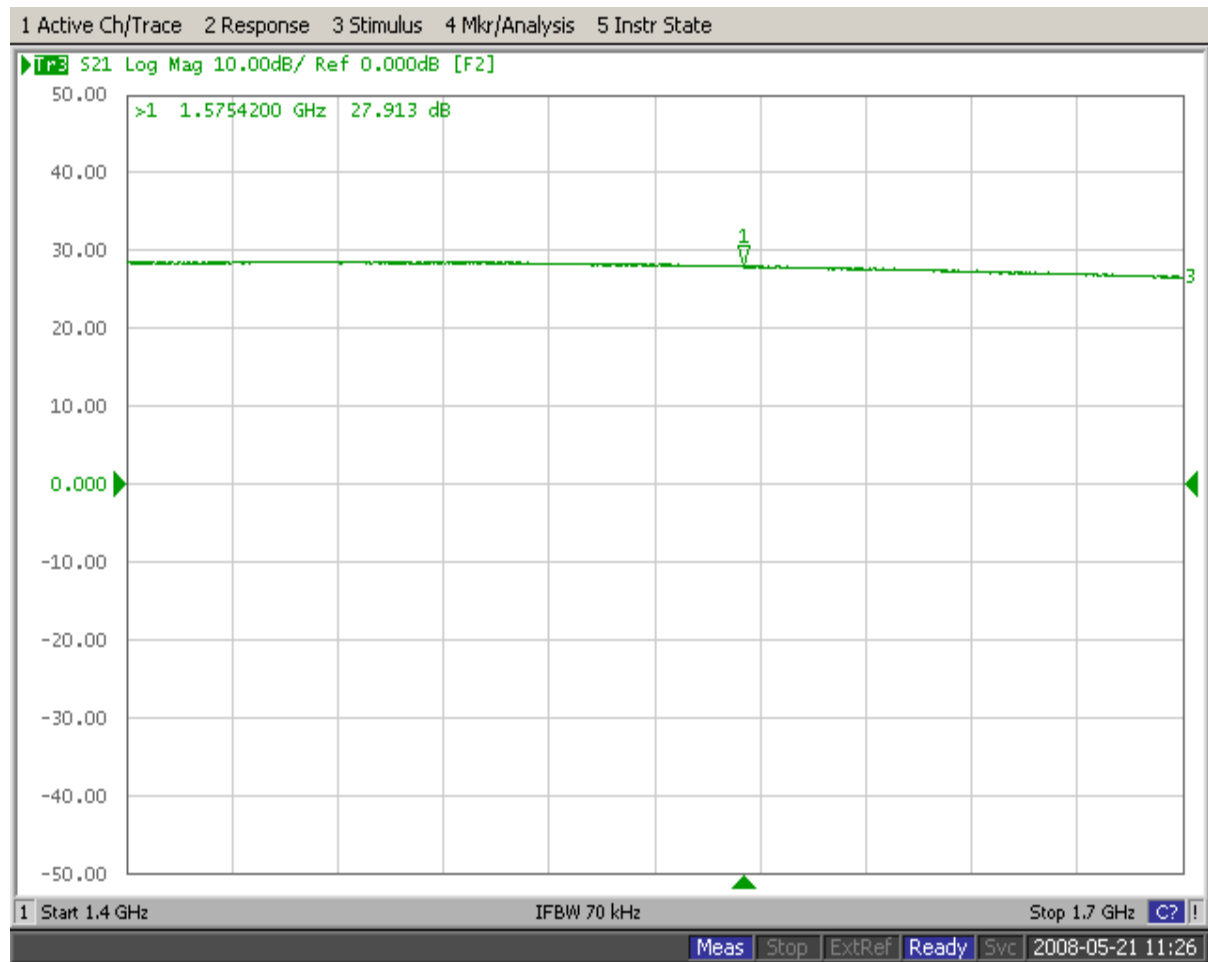
Data Updated: DEC 07, 2010

Antenna Dimensions:

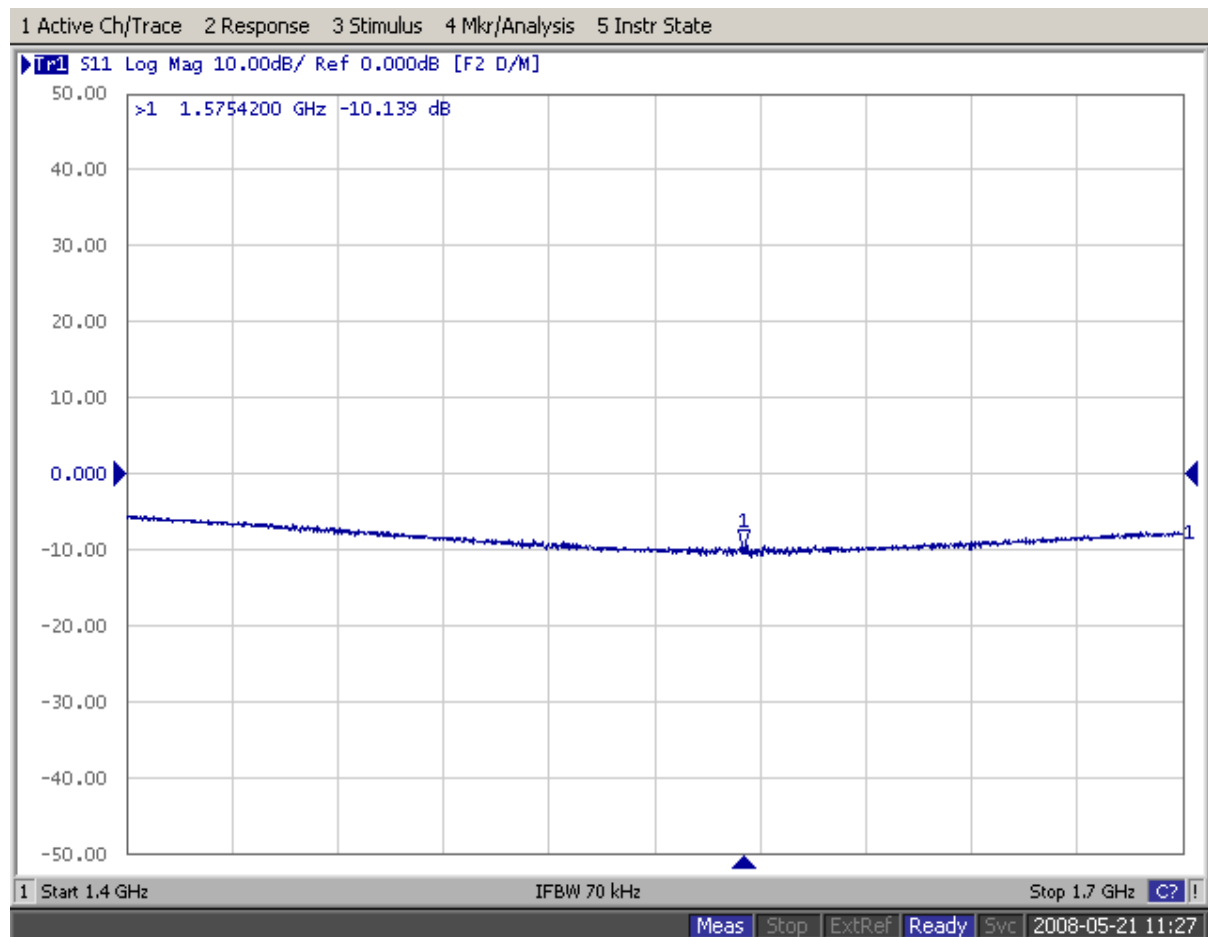


Units:mm

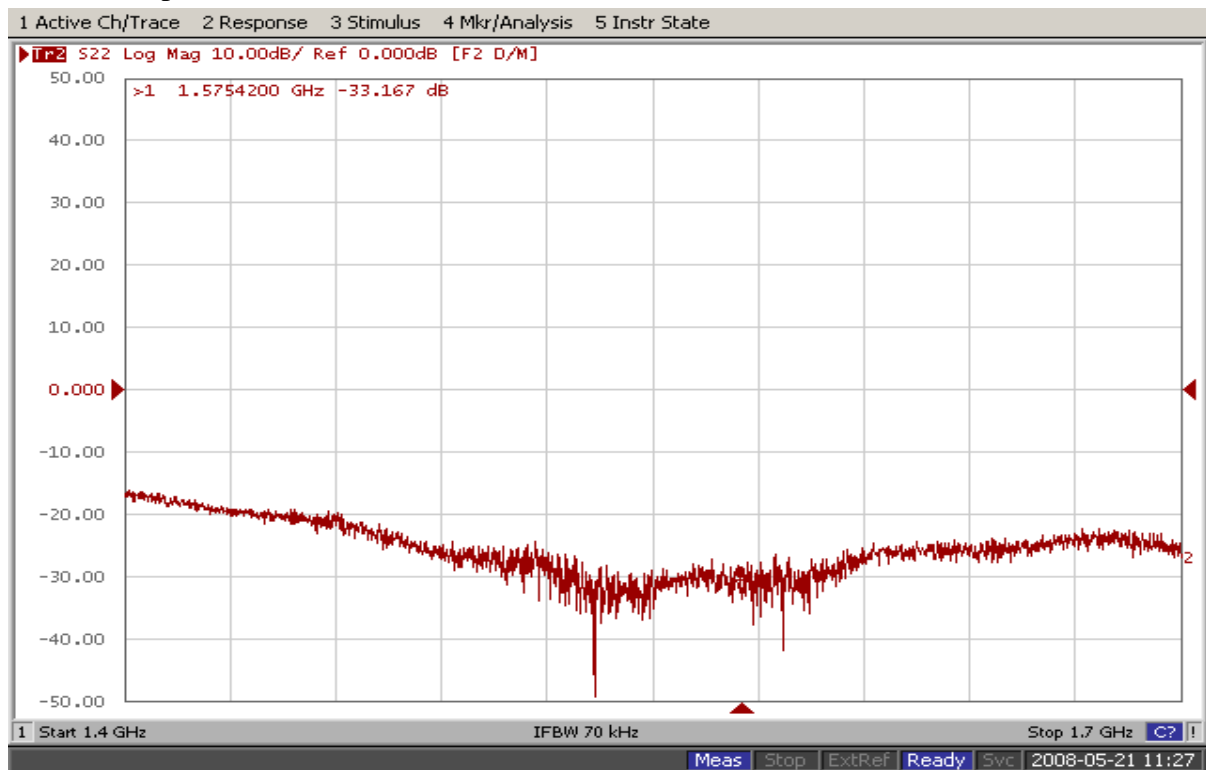
1. LNA Insertion Gain



2. LNA Input reflection Coefficient



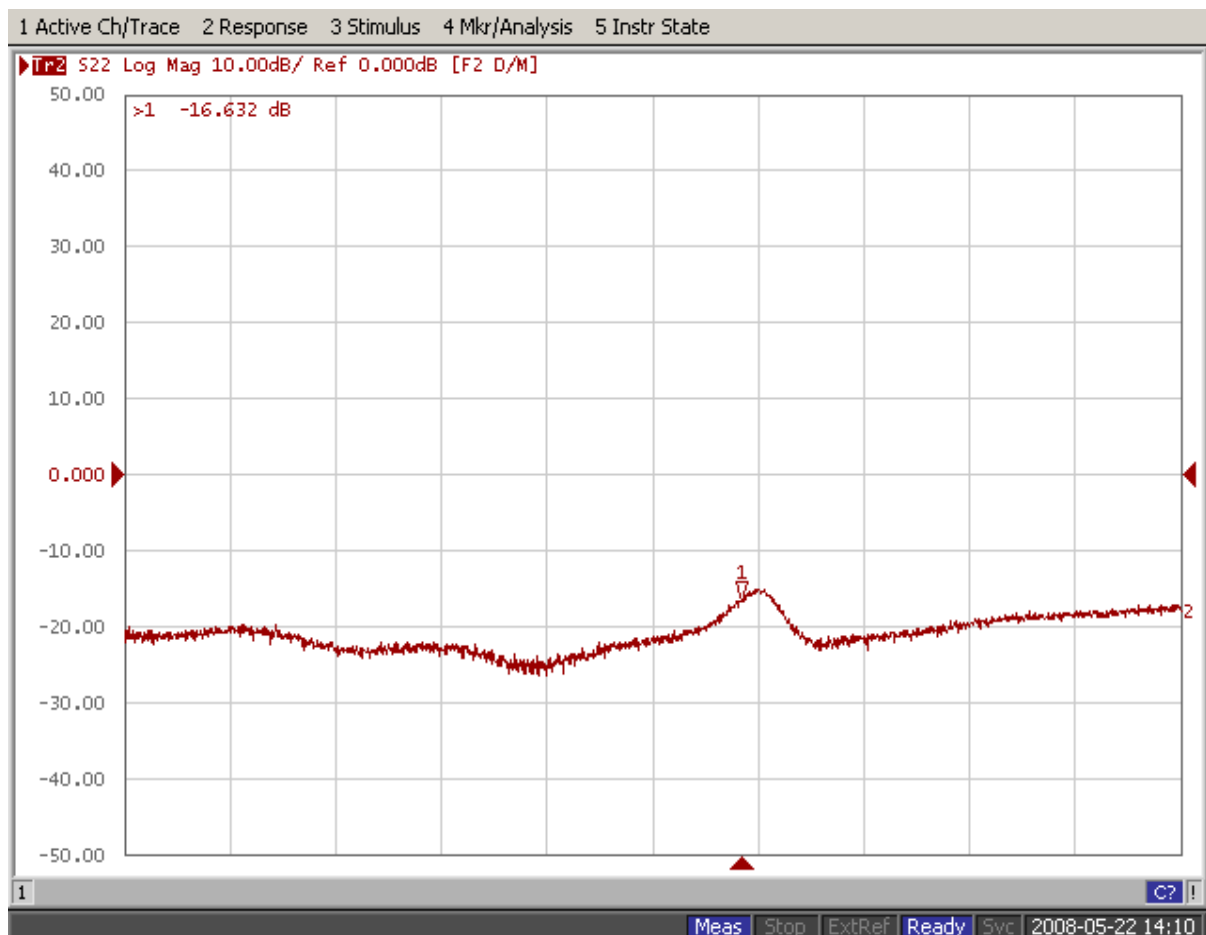
3. LNA Output reflection Coefficient



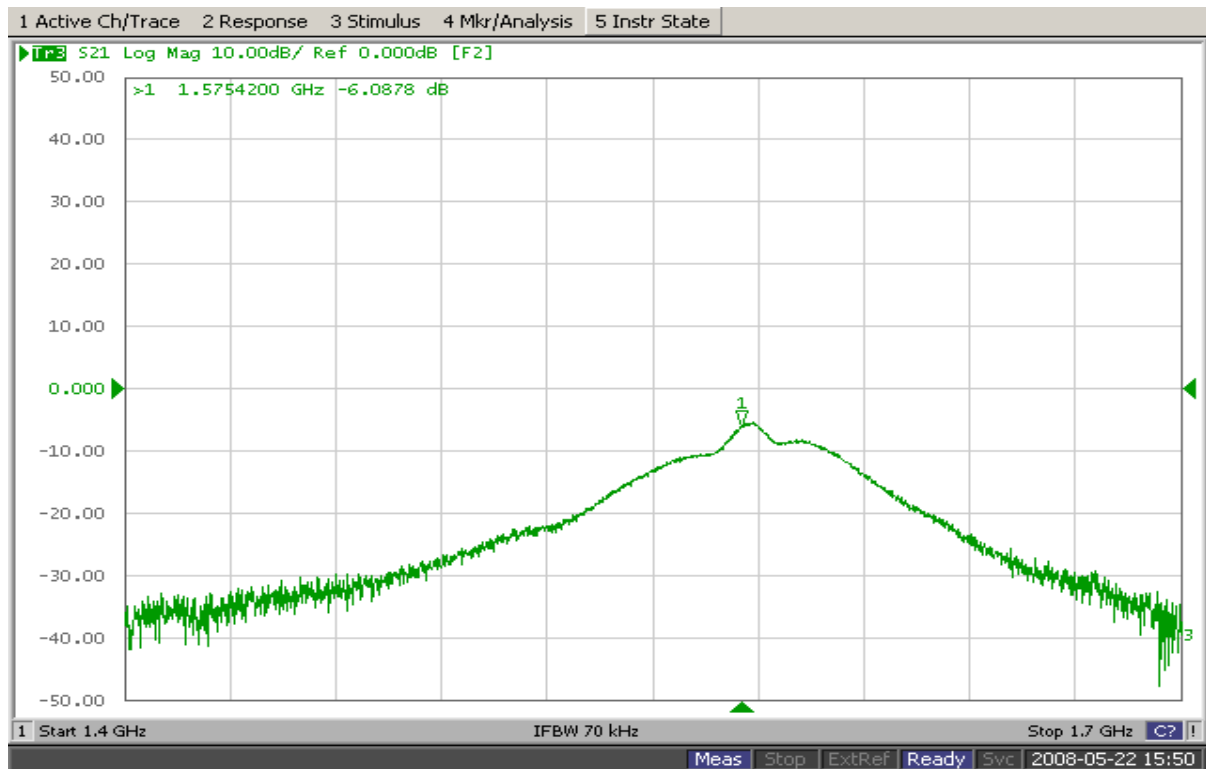
The S-parameters of LNA in the condition of -35 dBm input power.

Active Antenna Module

1. Output reflection coefficient



2. Active antenna Gain



Ps. Specification : $S_{21} \geq -9$ dB