

## A-111 GPS Active antennas



**A-111** GPS Active antennas is the only innovating design antenna with performance, quality and an RF protection circuit built-in to protect the active LNA's, and most importantly, the host GPS receiver down the connector end from the danger level of high power RF CW source exceeding over 1watt. The **A-111** is a low profile GPS active antennas system for the next generation multi-purpose GPS mobile antenna products for Telematics, Fleet Management, Navigations and AVL applications. This small print size of the antenna design does not reflect over-all performance, since the antenna itself needs no ground plane aid to deliver the L1 band small signal carrier that originates from the 24 orbiting USA satellites located thousands of miles over-head and with the ground reception power sensitivity at over -130dB. The **A-111** antenna's standard design is power input range from +3Vdc to +6Vdc with reverse polarity shutdown, over-current sense shutdown and an EMC power line suppression. The most important over-all design concept of the **A-111** GPS active antennas is the complete protection of the host sensitive GPS receiver made by any manufacturers, which can be destroyed or de-graded by using an improper design antenna.

### Features

- 10W RF protection in the front end to keep GPS receivers from damage
- EMI suppressor filter
- Short-circuit protection
- Narrow band width: <50MHz
- Wide power input range: +3V ~ +6V
- Double shielded low loss 2.7mm RG174 cable
- Cable length up to 10 meters
- Silver tined conductor
- Interference suppression: > 25 dB (Fo +/-100MHz)
- Power consumption: 11mA ~ 13mA
- Meet RoHS Directive

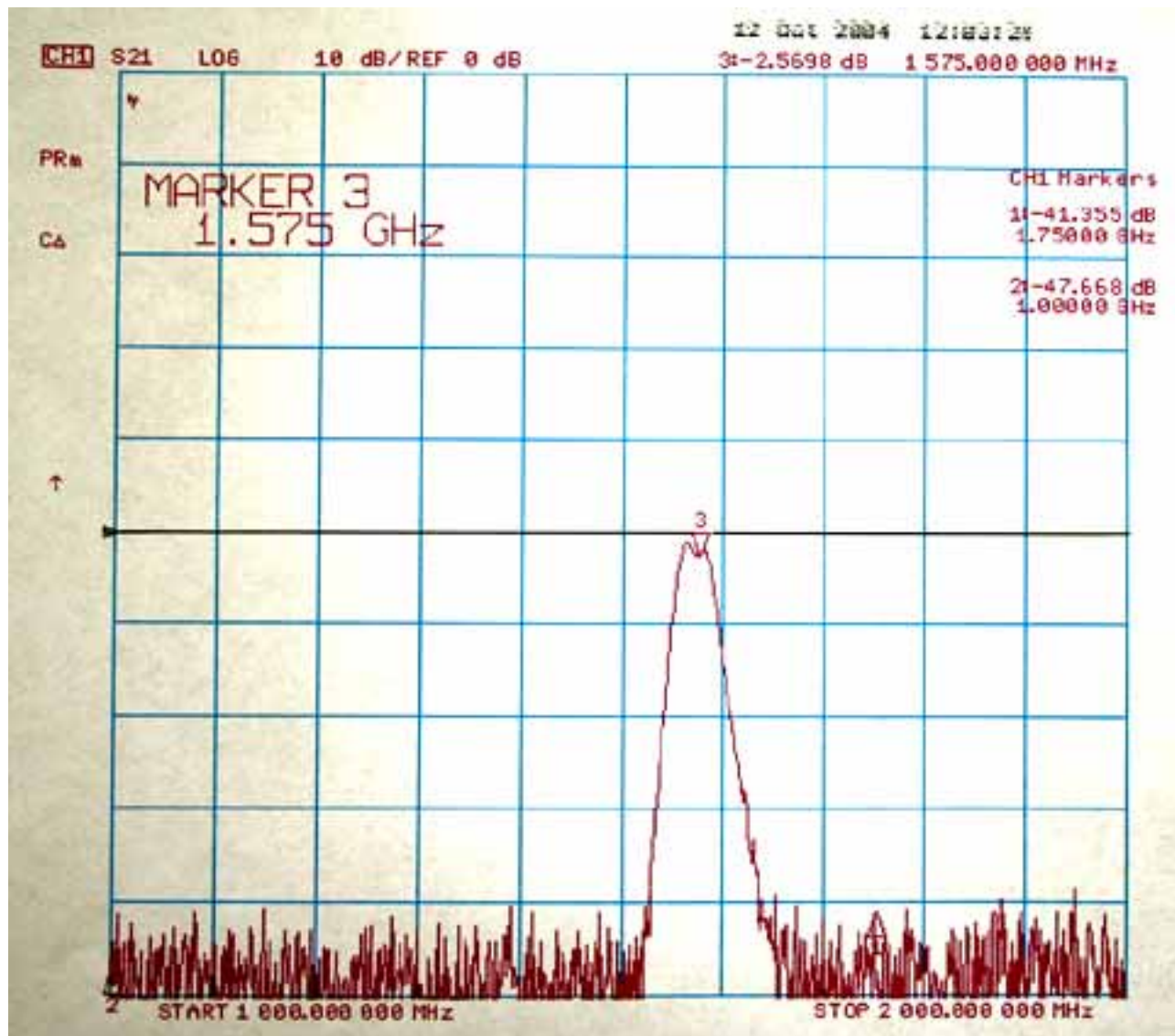
### Applications

- Telematics
- Automotive
- Fleet management
- Navigations
- AVL
- Sports & recreation
- Geographic surveying

## A-111 Antenna Specifications

<b>General</b>		2 Stages active LNA
		BPF
		RF protection(10watt), nano-second Spark-Gap
	Architecture Design	Dielectric Patch antenna
		Low Noise Low drop-out, Linear Regulator
		Low Loss RG/174 Coax cable with double shield
		Aluminum Base/ PC+ Radome Plastic
<b>Performance</b>	Receiving Frequency	L1 Band(1575.42MHz)
	Output Impedance	50 ohms
	Polarization's	Right Hand Circular (RHC)
	Bandwidth	10dB MHz @ -3dB point
	VSWR	1.5 Typical @ 1575MHz
	Elev. Angle Coverage	5~90 degree
	Az. Bearing Coverage	360 degree
	Filtering	BPF <10 MHz B/W @-3dB
	Over-all Gain	28dB (typical including 4dB cable loss & Filters)
	Over-all NF	<1.8dB @fo, 2dB max.
	LNA Characteristic	K=>1 Un-conditionally Stable
<b>Electrical</b>	Power Input	+3Vdc to + 6Vdc input, Auto Switching
	Power Consumption	11mA to 13mA (max)
	Power Input	Reverse Polarity Short Circuit shutdown
	Over-Current	Thermal Over-current shutdown >+150degreeC
<b>Physical</b>	Dimensions	44 x 34 x 12mm +/-0.5mm
	Mount	Magnetic
	Radome Color	Black
	Coax Connector	BNC, SMA, SMB, MCX, MMCX, GT-5, Hirose...etc.
	Coax Cable	RG-174U double shielded 5m, Low Loss 0.7dB/m
<b>Environmental</b>	Operating Temperature	-30 to + 85 degree C
	Storage	-40 to + 90 degree C
<b>Option</b>	OEM Hardware	1. Open Frame Antenna , with RF shield
		2. Open Frame with 3" Flanges & RF shield
		3. Ant + Aluminum Base

**A-111 PLOT-1**



**A-111 PLOT-2**

