# **Vehicle Locating Small GPS/GSM/WIFI Antenna**

**MODEL: GWA-650L** 

Small size and ruggedness, demand of vehicle locating and car navigation GPS antenna that will sustain harsh environment.



- Low noise figure
- Fully weather proof IPX7.
- Ultra-high Sensitivity
- Compact construction
- Excellent temperature stability

The antenna system **GWA-650L** is the integration of the high performance GPS patch antenna and a low noise amplifier into state-of-the-art low a very low profile/extremely compact/fully waterproof antenna signal enclosure. When connected to a GPS receiver with +2.5~ 5.5V DC antenna powers it provides excellent signal amplification and out-band-rejection for that receiver.

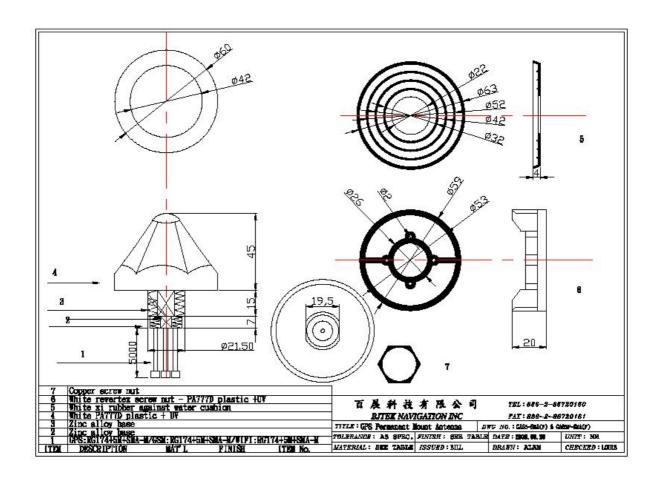
#### Features:

GPS antenna with double threaded bolts and through holes for cable routing with course & fine treaded pitch locking for wing-nut fastener and lock-nut to prevent vibrations and un-authorize removal.

## Specifications:

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PHYSICAL CONDITION			
Constructions:	Polycarbonate radome, detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof		
Dimensions:	60mm(Dia.) x 45mm(H)		
Weight:	65grams (w/o cable & connector).		
Color:	White or Black (Optional)		
Mounting:	Bulkhead mount with 0.8 inch threaded wing nut (standard accessory). FB6 2.5mm SUS L-Mounting		
Cable & Connector			
RF cable:	RG174 / 5M or 3M,		
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.		
Connector available:	SMA ,SMB,Fakra ,BNC,TNC,MMCX,MCX		
Antenna Element			
Center Frequency:	1575.42 MHz +/-1.023 MHz		
Polarization:	R.H.C.P. (Right Handed Circular Polarization).		
Absolute Gain @ Zenith:	+5 dBi typical.		
Gain @ 10° Elevation:	-1 dBi typical.		
Axial Ratio:	3 dB max.		
Output VSWR:	2.0		

Output Impedance:	50 ohm		
Low Noise Amplifier			
Center Frequency:	1575.42 +/- 1.023 MHz		
Power Gain:	28 db +/-3db		
Bandwidth:	10 MHz min. @S11≤-10 dB		
Noise Figure:	1.5		
Outer Band Attenuation:	3 dB max.		
Supply Voltages:	2.5~5.5V DC.		
Current Consumption:	at 2.5V 6.6mA Typ. at 3.0V 8.6mA Typ. at 4.0V 12.6mA Typ. at 5.0V 16.6mA Typ.		
Filter	20dB 25dB @ fo+/- 50MHz 30dB 35dB @ fo+/- 100MHz * fo=1575.42MHz		
Overall Performance: (antenna element, LNA & coax cable)			
Center Frequency:	1575.42 +/- 1.023 MHz		
Gain:	At 90° vertical to sky 30 ± 4.5dBi (cable loss) Note:1  Mounted on the 60mm x 60mm square ground plane		
Noise Figure:	1.5 max.		
Axial Ratio:	3 dB max.		
Bandwidth:	10 MHz min. @S11≤-10 dB		
VSWR:	2.0 max.		
Output Impedance:	50 ohm		
Environmental			
Operating Temperature:	-40°C~ +100°C.		
Storage Temperature:	-40°C∼ +100°C.		
Relative Humidity:	95% non-condensing.		
Water Resistance:	100% waterproof.		
GSM / CDMA / 3G /		WIFI	
Frequency 850/900/180	00/1900/2170	2400~2500Mhz	
VSWR 2.0		2.0	
Impedence 50Ω		50Ω	
Cable type RG174 Cable length 5M or 3M		RG174 5M or 3M	
Connector SMA Coding or Others		SMA Coding or Others	
*This specification is subject to change without prior notice  Data Updated: Aug.31,			







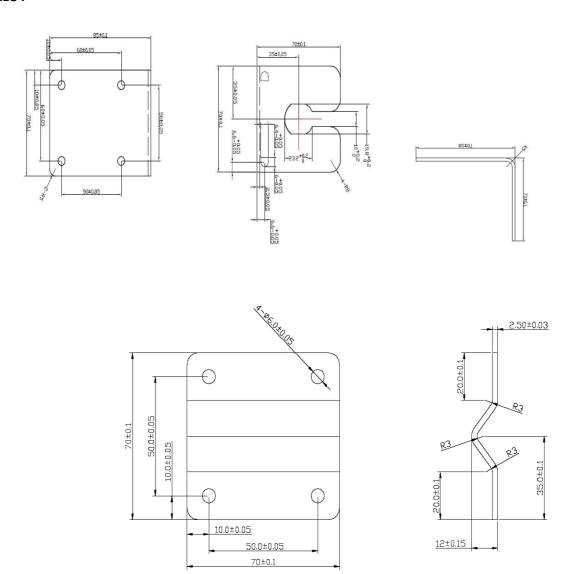


**SUS L-Mounting** 

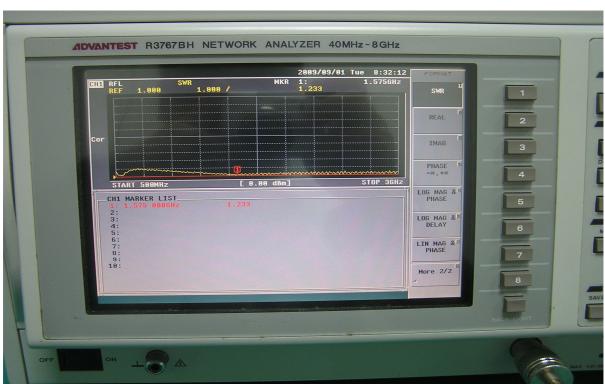
Madel: FB-6



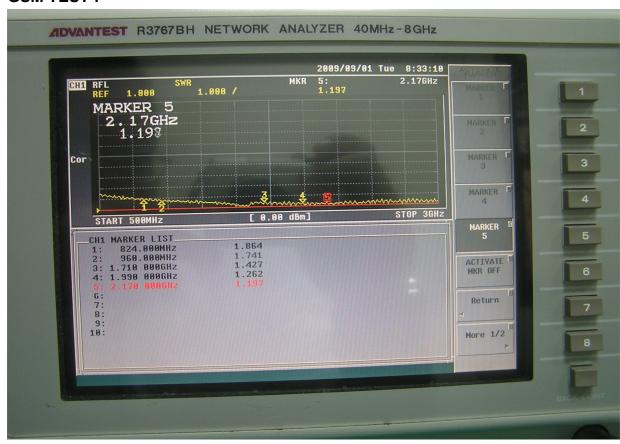
## Size:



## **GPS TEST:**



## **GSM TEST:**



## **WIFI TEST:**

