

# Vehicle Locating & Marine Small GPS Antenna

## MODEL: GA-68

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



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

The antenna system **GA-68** 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-authorized removal.

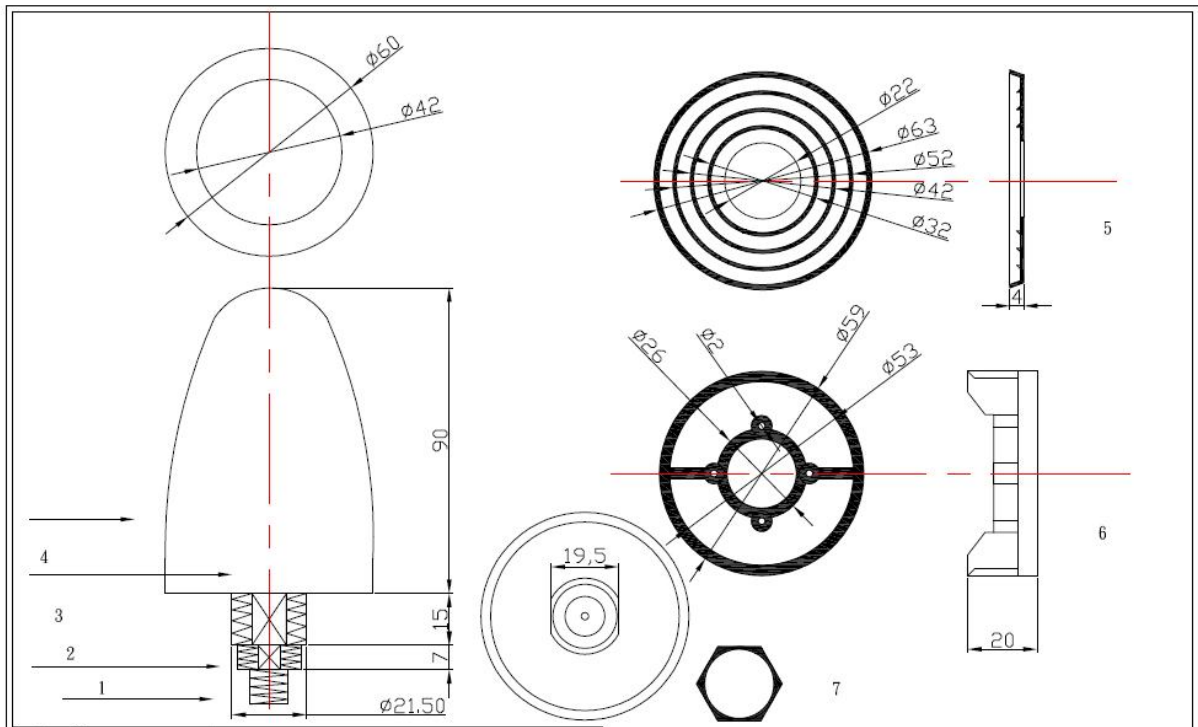
### Specifications:

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 90mm(H)
Weight:	65grams (w/o cable & connector).
Color:	White or Black (Optional)
Mounting:	Bulkhead mount with 0.8 inch threaded wing nut (standard accessory).
Cable & Connector	
RF cable:	SMA(M)-10M RG58 -TNC(M) or Optional
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector available:	TNC(F)
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
<b>Low Noise Amplifier</b>	
Center Frequency:	1575.42 +/- 1.023 MHz
Power Gain:	28 db +/-3db
Bandwidth:	10 MHz min. @S11≤-10 dB
Noise Figure:	1.5 typ
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
<b>Overall Performance: (antenna element, LNA &amp; coax cable)</b>	
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
<b>Environmental</b>	
Operating Temperature:	-40°C~ +100°C.
Storage Temperature:	-40°C~ +100°C.
Relative Humidity:	95% non-condensing.
Water Resistance:	100% waterproof.

\* This specification is subject to change without prior notice

Data Updated: JUL.04, 2013



7	Copper screw nut								
6	White revertex screw nut - PA77D plastic +UV								
5	White xi rubber against water cushion								
4	White PA77D plastic + UV								
3	Zinc alloy base								
2	Zinc alloy base								
1	TNC(F) Connector								
ITEM	DESCRIPTION	MAT'L	FINISH	ITEM No.					

百展科技有限公司 TEL: 886-2-86720160  
 BJTEK NAVIGATION INC FAX: 886-2-86720161

TITLE: GPS Permanent Mount Antenna DWG NO.: CA-08/P/G-TNC(F) & SMA(F)  
 TOLERANCE: AS SPEC. FINISH: SEE TABLE DATE: 2000, 06, 29 UNIT: MM  
 MATERIAL: SEE TABLE ISSURD: BILL DRAWN: ALAN CHECKED: LOUIS