## Marine GPS/GLONASS Antenna

**MODEL: MA-680GL** 

Tapered size and ruggedness design, demand of vehicle locating and marine navigation GPS/GLONASS antenna that will sustain harsh environment.



- Low noise figure
- Fully weather proof.
- Ultra-high Sensitivity
- Compact construction
- Excellent temperature stability
- FB3A SUS L-Mounting 1"-14 UNS

The antenna system **MA-680GL** is the integration of the high performance GPS/GLONASS 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 +3~5V DC antenna power it provide excellent signal amplification and out-band-rejection for that receiver.

## Features:

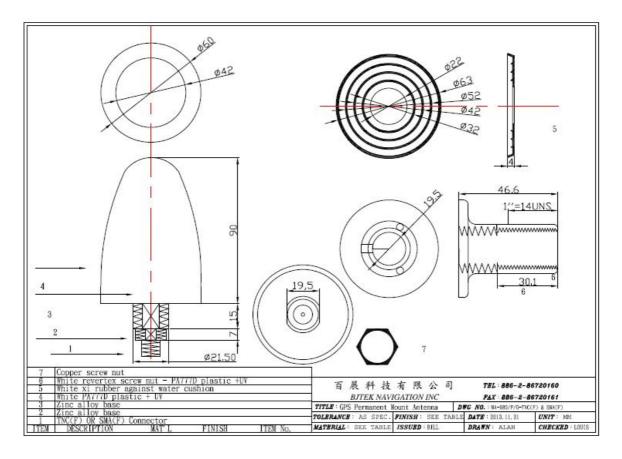
GPS/GLONASS antenna with double threaded bolts and through holes for cable routing with course & fine treaded pitch locking for wing-nut fastener and lock-nut to prevent vibrations and un-authorize removal.

## 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 140mm(H)  |
| Weight:            | 200grams (w/o cable & connector).  |
| Color:             | Standard in ivory white, other colours available upon request.   |
| Mounting:          | Bulkhead mount with 0.8 inch threaded wing nut (standard accessory).   |
| Mounting Adapters  | Pole mount to 1"-14 UNS threaded mast  |
| Base mounting      | B3A SUS L-MOUNTING 1"-14 UNS   |
| Cable & Connector  |  |
| RF cable:          | SMA(M) +10 meter RG58 +TNC(M) (standard) other length (optional)   |
| Pulling strength:  | 6 Kg @ 5sec. molded plastic on connector end for strain relief.  |
| Connector          | SMA(F) or TNC(F)   |
| Antenna Element    |  |
| Center Frequency:  | 1575Mhz & 1596-1610 MHz  |

| Polarization:   | R.H.C.P. (Right Handed Circular Polarization).   |  |
|---|--|--|
| Bandwidth   | 10 MHz min. @S11 -10 dB, 24MHz typ. @S11<-8dB  |  |
| Gain @ 10° Elevation:                                     | 2 dBi typical.   |  |
| Axial Ratio:  | 3 dB max.  |  |
| Output VSWR:  | 1.5 max  |  |
| Output Impedance:   | 50 ohm   |  |
| Low Noise Amplifier                                       |  |  |
| Power Gain:   | 1570 Mhz : 29db typ<br>1610 Mhz : 29db typ   |  |
| Bandwidth:  | 50 MHz min.  |  |
| Noise Figure:   | 1.5 typ  |  |
| Filter  | SAW Filter 30 dB min @ fo± 100MHz * fo=1590.MHz  |  |
| Supply Voltages:  | 2.3~5.5V DC.   |  |
| Current Consumption:                                      | 2.5V: 6.6mA Typ. 3V: 8.6mA Typ. 4V: 12.6mA Typ. 5V: 16.6mA Typ.  |  |
| Output Impedance:   | 50W ohm  |  |
| Overall Performance: (antenna element, LNA & coax cable)  |  |  |
| Center Frequency:   | 1570 ~1620 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:   | 2.0 max.   |  |
| Axial Ratio:  | 3 dB max.  |  |
| Bandwidth:  | 10MHz min.   |  |
| VSWR:   | 2.0 max.   |  |
| Output Impedance:   | 50W ohm  |  |
|   | COLUMN CHILI   |  |
| Environmental   |  |  |
|   | -40°C~ +85°C.  |  |
| Environmental   |  |  |
| Environmental Operating Temperature:                      | -40°C∼ +85°C.  |  |
| Environmental Operating Temperature: Storage Temperature: | -40°C~ +85°C.<br>-40°C~ +90°C.   |  |

 $<sup>* \ \ \, \</sup>hbox{This specification is subject to change without prior notice}$ 



## **Marine Antenna Base mounting**

**MODEL: FB-3A** 



1"-14 UNS threaded mast SUS304/C3604

Locks on the truck rear-view mirror or on iron stand or flagpole

