

# Marine Small GPS Antenna

## MODEL: MA-620PL

### High Gain gps antenna 3V:38db/5V:45db

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
- FB3A SUS L-Mounting 1"-14 UNS

The antenna system **MA-620PL** 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.

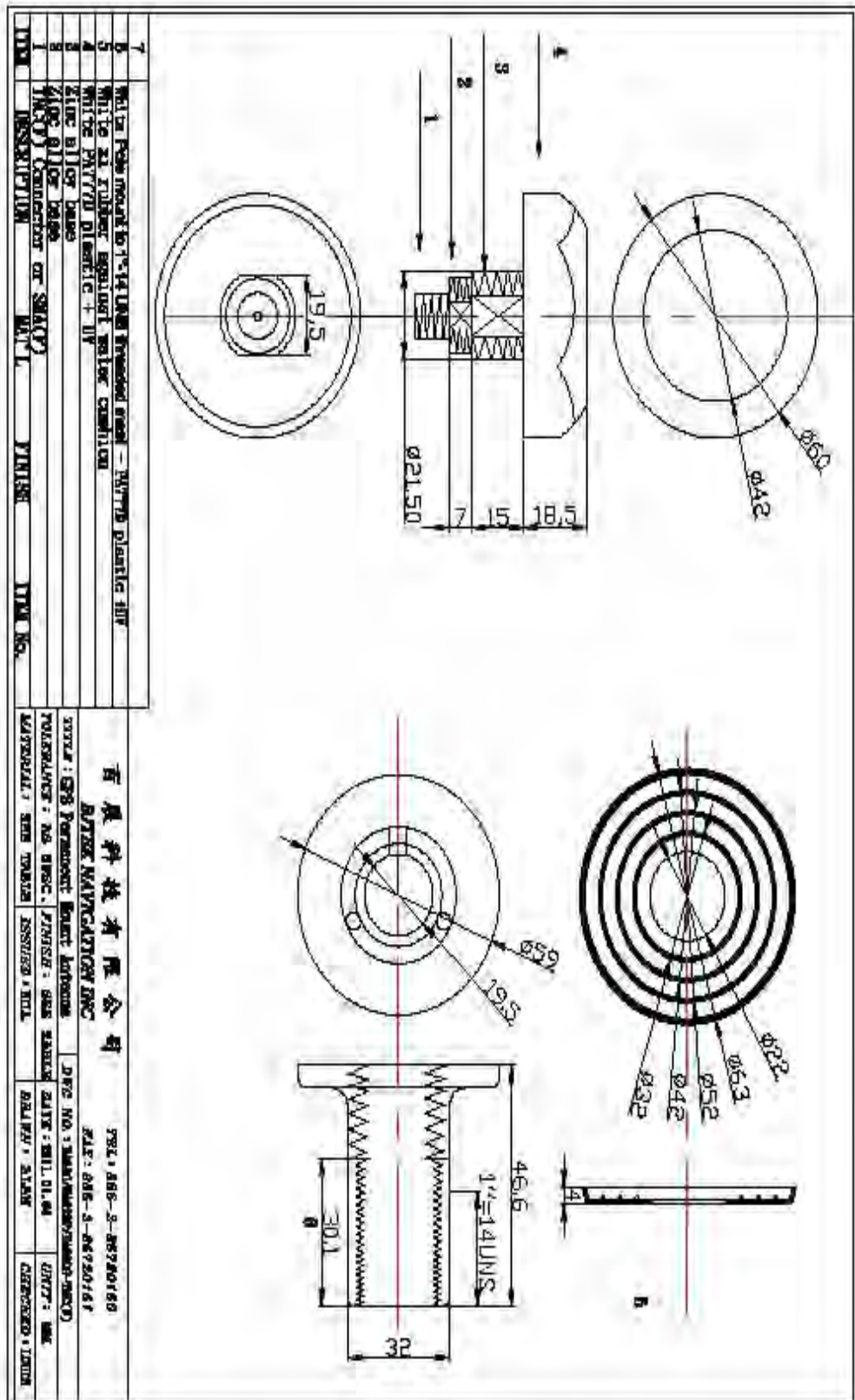
| Specifications             |  |
|----------------------------|--|
| <b>Antenna Element</b>     |  |
| Center Frequency           | 1575.42 MHz +/-1.023 MHz                       |
| Polarization               | R.H.C.P. (Right Handed Circular Polarization)  |
| Absolute Gain @ Zenith     | +5 dBi typical Based on 70×70mm ground plane   |
| Gain @ 10° Elevation       | -1 dBi typical                                 |
| Axial Ratio                | 3 dB max.                                      |
| Output VSWR                | 1.5:1 Typ.                                     |
| Output Impedance           | 50 ohm   |
| <b>Low Noise Amplifier</b> |  |
| Center Frequency           | 1575.42 MHz +/- 1.023 MHz                      |
| Power Gain                 | 38db(3V) / 45db(5V) (Without cable +25°C±10°C) |
| Bandwidth                  | 10 MHz min.                                    |
| Noise Figure               | 1.6 Typ.                                       |
| Outer Band Attenuation     | 20 dB min. @ Fo +/-50 MHz                      |
| Supply Voltages            | 3.0~5.0V DC                                    |
| Current Consumption        | 21mA@ 3.0V DC,25mA@ 5.0V DC                    |
| VSWR                       | 1.5 max.                                       |

|   |  |
|---|--|
| Output Impedance  | 50 ohm   |
| <b>Overall Performance: (antenna element, LNA &amp; coax cable)</b> |  |
| Center Frequency  | 1575.42 MHz  |
| Gain  | 38db(3V) / 45db(5V) (Without cable +25°C±10°C)                       |
| Noise Figure  | 2.0 max.   |
| Bandwidth   | 10 MHz min.  |
| Axial Ratio   | 3 dB max.  |
| VSWR  | 1.5 max.   |
| Output Impedance  | 50 ohm   |
| <b>Environmental Conditions</b>                                     |  |
| Operating Temperature   | -30°C to +80°C   |
| Storage Temperature   | -40°C to +100°C  |
| Relative Humidity   | 40% to 95% non-condensing  |
| Water Resistance  | 100% waterproof  |
| <b>Physical Constructions</b>                                       |  |
| Dimensions  | Antenna : 60mm(Dia.) × 70mm(H)                                       |
| Weight  | 200 grams (without cable)  |
| Standard Mounting   | Bulkhead mount with 0.8 inch threaded wing nut (standard accessory). |
| Mounting Adapters   | Pole mount to 1"-14 UNS threaded mast                                |
| Base mounting   | FB3A SUS L-MOUNTING 1"-14 UNS  |
| <b>Cable &amp; Connector</b>  |  |
| RF Connector  | SMA(F) or TNC(F)   |
| Cable Pulling strength  | 6 Kg @ 5sec. molded plastic on connector end for strain relief.      |

\* This specification is subject to change without prior notice

Data Updated: NOV.01, 2012





# 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

