## Marine Small GPS Antenna MODEL: MA-650PL 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-650PL** 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.

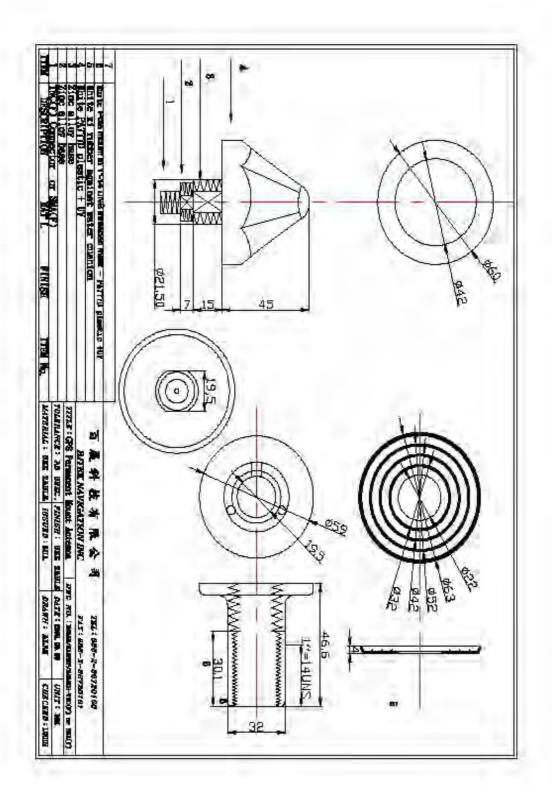
| Specifications         |   |
|------------------------|---|
| Antenna Element        |   |
| Center Frequency       | 1575.42 MHz +/-1.023 MHz                      |
| Polarization           | R.H.C.P. (Right Handed Circular Polarization) |
| Absolute Gain @ Zenith | +5 dBi typical Based on 70×70mm ground plane  |
| Gain @ 10° Elevation   | -1 dBi typical                                |
| Axial Ratio            | 3 dB max.                                     |
| Output VSWR            | 1.5:1 Тур.                                    |
| Output Impedance       | 50 ohm  |
| Low Noise Amplifier    |   |
| Center Frequency       | 1575.42 MHz +/- 1.023 MHz                     |
| Power Gain             | 38db(3V) / 45db(5V) (Without cable +25℃±10℃)  |
| Bandwidth              | 10 MHz min.                                   |
| Noise Figure           | 1.6 Тур.                                      |
| 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                   |
| BJTEK Navigation Inc.  | https://www.bjnav.com/                        |

| VSWR   | 1.5 max.   |  |
|--|--|--|
| Output Impedance   | 50 ohm   |  |
| Overall Performance: (antenna element, LNA & coax cable) |  |  |
| Center Frequency   | 1575.42 MHz  |  |
| Gain   | 38db(3V) / 45db(5V) (Without cable +25℃±10℃)                         |  |
| Noise Figure   | 2.0 max.   |  |
| Bandwidth  | 10 MHz min.  |  |
| Axial Ratio  | 3 dB max.  |  |
| VSWR   | 1.5 max.   |  |
| Output Impedance   | 50 ohm   |  |
| Environmental Conditions                                 |  |  |
| 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  |  |
| Physical Constructions                                   |  |  |
| Dimensions   | Antenna : 60mm(Dia.) × 95mm(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  |  |
| Cable & Connector  |  |  |
| RF Connector   | SMA(F) or TNC(F)   |  |
| Cable Pulling strength                                   | 6 Kg @ 5sec. molded plastic on connector end for strain relief.      |  |

 $\ast$  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

