Marine GPS High Gain Antenna

MODEL: MA-680P

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

The antenna system **MA-680P** 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:

| Specifications: | |
|------------------------|---|
| 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 Typ. |
| 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 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 |
| | |

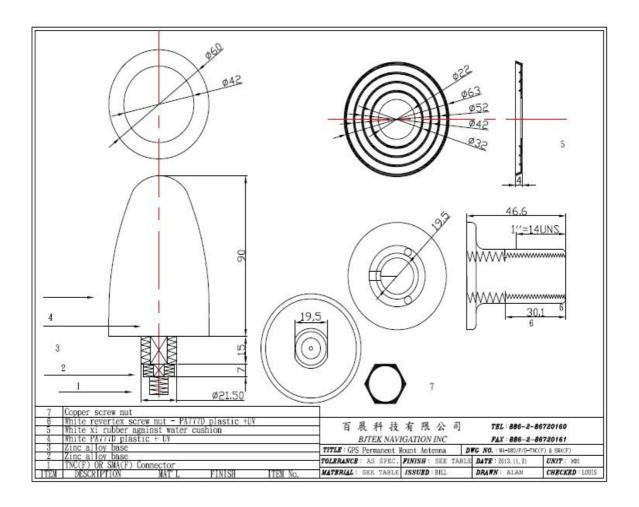
| Overall Performance: (antenna element, LNA & coax cable) | |
|---|--|
| 1575.42 MHz | |
| 38db(3V) / 45db(5V) (Without cable +25℃±10℃) | |
| 2.0 max. | |
| 10 MHz min. | |
| 3 dB max. | |
| 1.5 max. | |
| 50 ohm | |
| | |
| -30°C to +80°C | |
| -40°C to +100°C | |
| 40% to 95% non-condensing | |
| 100% waterproof | |
| | |
| Antenna: 60mm(Dia.) x 140mm(H) | |
| | |
| 200 grams (without cable) | |
| Bulkhead mount with 0.8 inch threaded wing nut (standard accessory). | |
| Pole mount to 1"-14 UNS threaded mast | |
| FB1 1"-14 UNS | |
| | |
| SMA(F) or TNC(F) | |
| 6 Kg @ 5sec. molded plastic on connector end for strain relief. SMA(M)-CFD200-30M-TNC(M) or other | |
| | |

 $*\ensuremath{\mathsf{This}}$ specification is subject to change without prior notice

Data Updated: NOV.22, 2013







FB1 Base mounting

