

Marine Small GPS Antenna

MODEL: MA-650P

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-650P** 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 | |
|------------------------|--|
| 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 70x70mm 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°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 |

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| 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) | |
| 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 |
| 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 | FB1 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. |

* This specification is subject to change without prior notice

Data Updated: FEB.23, 2010



