

# GPS Marine Antenna with Low Noise Amplifier

**Model : MA-600**

Designed for the Marine Vessels mast or tall buildings that require long extra cables without signal constraint to the GPS receivers.



- 100% waterproof
- Gain: 30 dB typical
- VSWR: 1.5 max.
- Noise Figure: 2.0 max
- Dimensions: 112 mm in diameter & 104mm in height

**MA-600** is the integration of the high performance GPS patch antenna and a state-of-the-art low noise amplifier into an extremely compact/fully waterproof enclosure and when connected to a GPS receiver with +5VDC antenna power it can provide excellent antenna signal amplification and out-band filtering with rejection for that receiver.

## Specifications :

### Physical Constructions:

- **Constructions:** Polycarbonate radome enclosure (top & bottom base with rubber O-ring inbetween) •

**Dimensions:** 112mm diameter & 104mm height

- **Weight:** 500 grams (with 10m cable)

- **Standard Mounting:**

External flagpole mount , an optional accessory kit

- **Optional mounting plate:**

1. Cabin roof-mount with stainless steel base & shaft
2. Rail side mount with stainless rod

### Cable & Connector:

- **RF:** 10 meter RG58 A/U for standard MA-600, with 20~40 meters available for options. Cable connectors are hermetically molded plastics for waterproof and stain relief.
- **Cable Pulling strength:** 12Kg for 5sec.
- **Connector available:** BNC (standard), other types (optional)

### Antenna Element:

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- **Center Frequency:** 1575.42 MHz +/-1.023 MHz
- **Polarization:** R.H.C.P. (Right Handed Circular Polarization).
- **Absolute Gain @ Zenith:** +5 dBi typical.
- **Gain @ 10° Elevation:** -1 dBi typical.
- **Axial Ratio:** 3 dB max.
- **Output VSWR:** 1.5:1 max.
- **Output Impedance:** 50 ohm

#### Low Noise Amplifier:

- **Center Frequency:** 1575.42 MHz +/- 1.023 MHz.
- **Power Gain:** 30 dB typical
- **Bandwidth:** 2 MHz min.
- **Noise Figure:** 1.5 max.
- **Outer Band Attenuation:** 20 dB min. @ Fo +/-50 MHz.
- **Supply Voltages:** 2.5V~5.5V DC.
- **Current Consumption:** 15+/-3mA
- **VSWR:** 1.5 max.
- **Output Impedance:** 50 ohm

#### Overall Performance: (antenna element, LNA & coax cable)

- **Center Frequency:** 1575.42 MHz.
- **Gain:** 30 dB typical
- **Noise Figure:** 2.0 max.
- **Bandwidth:** 2 MHz min.
- **Axial Ratio:** 3 dB max.
- **VSWR:** 1.5 max.
- **Output Impedance:** 50 ohm

#### Environmental Conditions:

- **Operating Temperature:** -40°C~ +85°C.
- **Storage Temperature:** -50°C~ +90°C.
- **Relative Humidity:** 95% non-condensing.
- **Water Resistance:** 100% waterproof.

**User selectable datum \*Pole mount to 1"-14 UNS threaded mast**

(This specification is subject to change without prior notice.)

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