

Marine GPS Antenna

MODEL: TA-200

GPS antenna with low noise amplifier for marine application



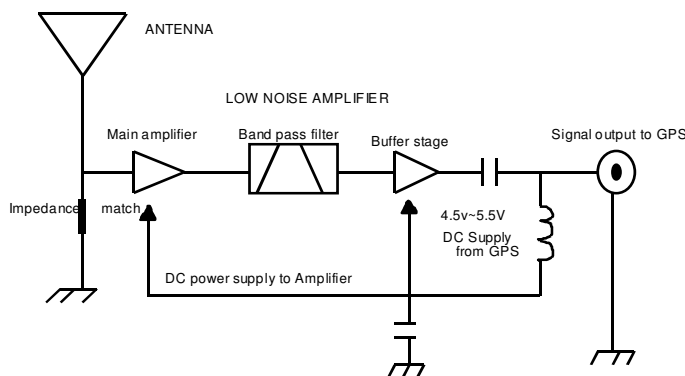
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Features

This text specifies the basic operation characteristics of the active GPS antenna model TA-200 under standard test condition of +5Vdc & 25/ 50% R.H.

Antenna

TA-200 is the integration of a high performance GPS patch antenna and a state-of-the-art low noise amplifier into an extremely compact/fully waterproof enclosure. When connected to a GPS receiver with +5VDC antenna power, it provides excellent signal amplification and out-band filtering/rejection for that receiver.



Specifications

Physical Construction:

Construction:

Polycarbonate radome enclosure (top & bottom base with rubber O-ring in-between)
Center feeds TNC connector for antenna output.

Dimensions: 3.5" in diameter & 2.15" in height

Weight: 147 grams (without cable)

Standard Mounting: External flagpole type mast mount 1"-14 threaded mast.

- Optional mounting:**
1. Cabin roof-mount with stainless steel base & shaft.
 2. Magnet Mount with strong Magnetic Base.

Cable & Connector:

- **RF:** 10 meters RG58 A/U. 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:

- **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
- **Power Gain:** 30dB typical
- **Bandwidth:** 2 MHz min.
- **Noise Figure:** 1.5 max.
- **Out Band Attenuation:** 20 dB min. @ Fo +/-50 MHz.
- **Supply Voltages:** 3.3~5.5V DC
- **Current Consumption:** 28+/-3mA
- **VSWR:** 1.5 max.
- **Output Impedance:** 50 ohm

Overall Performance: (antenna element, LNA and cable)

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

Environmental:

- **Operating Temperature:** -40°C~ +85°C.
- **Storage Temperature:** -45°C~ +90°C.
- **Relative Humidity:** 95% non-condensing.
- **Water Resistance:** 100% waterproof.