



# Permanently Mount GPS Antenna

## MODEL: RV-16/15

GPS roof-mount antenna with double threaded bolt, through hole, wing nut fastener, and locking nuts to prevent vibration and immoderate access.



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**RV-16/15** is the integration of a high performance GPS patch antenna and a low noise amplifier into a low profile, extremely compact and fully waterproof enclosure. When connected to a GPS receiver with **3~5V DC** antenna power, **RV-16/15** provides excellent signal amplification and out-of-band rejection for that receiver.

Coming with small size and ruggedness, **RV-16/15** is designed mainly to meet the robust demand for a GPS antenna that can maintain GPS signal stability for automatic vehicle locating and navigation even in a harsh environment.

### Features

- Low Noise Figure
- Fully Weatherproof
- Ultra-high Sensitivity
- Compact Construction
- Excellent Temperature Stability

### Specifications

#### Physical Construction:

**Construction:** Polycarbonate radome, detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof

**Dimensions:** 60mm in diameter x 38mm in height.

**Weight:** 65grams (excluding cable & connector).

**Color:** Standard in ivory white, other colours available upon request.

**Mounting:** Bulkhead mount with 0.8 inch threaded wing nut (standard accessory).

**Cable & Connector:**

**RF Cable:** 5 meter RG174/U (standard), other length (optional)

**Pulling Strength:** 6 Kg @ 5sec. molded plastic on connector end for strain relief.

**Connector Available:** BNC,TNC,GT5,MCX(OSX),SMA,SMB or SMC in straight or right angle.

**Optional Adapters:** Universal Connector Adapter (FME to TNC/BNC/SMA/SMB/MCX)

**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

**Gain:** RV-16: 30 dB typically / RV-15: 26 dB typically

**Bandwidth:** 2 MHz min.

**Noise Figure:** 1.5 max.

**Outer Band Attenuation:** RV-16: 20 dB min. @ Fo +/-50 Mhz. / RV-15: 12 dB min. @ Fo +/-140 Mhz

**Supply Voltages:** RV-16: 4.5~5.5V DC / RV-15: 3.0~5.5V DC

**Current Consumption:** RV-16: 28mA +/- 3 mA / RV-15: 12mA +/- 2 mA

**VSWR:** 2.0max.

**Output Impedance:** 50 ohm

**Overall Performance: (antenna element, LNA & coaxial cable)**

**Center Frequency:** 1575.42 Mhz.

**Gain:** RV-16: 27 dB typically

RV-15: 25 dB typically

**Noise Figure:** 2.0 max.

**Axial Ratio:** 3 dB max.

**Bandwidth:** 2MHz min.

**VSWR:** 2.0 max.

**Output Impedance:** 50 ohm

**Environmental Conditions:**

**Operating Temperature:** -30° C~ +85° C.

**Storage Temperature:** -40° C~ +90° C.

**Relative Humidity:** 95% non-condensing.

**Water Resistance:** 100% waterproof.