

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.



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.

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