



Mobile GPS Antenna with LNA

Model: SM-66

Compact & Sensitive GPS Antenna with Excellent Signal Amplification for Mobile Applications Tri Band



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The **SM-66** is an externally mount GPS antenna that provides continuous L1 band with high gain and low power consumption to a wide selection of GPS receivers in today's market. It is the integration of a high-performance GPS patch antenna and a low noise amplifier into very low profile/ extremely compact/ fully waterproof antenna enclosure. The unit provides excellent signal amplification to any GPS receiver with 5V DC antenna power at the center pin.

The small size and ruggedness of this antenna is a pre-requisite for the high demand of vehicle locating and car navigation GPS antenna that will sustain harsh environment and maintain GPS signal stability.

Features:

- Compact Construction/ Low Profile/ Fully Weatherproof
- Magnet or Screw Mount Base
- New Universal Connectors
- Excellent Temperature Stability
- Low Noise Figure
- Ultra-High Sensitivity

Applications:

- AVL
- Fleet Management Systems
- Car Navigation
- Marine GPS
- Weather Balloon
- Security Surveillance
- External Antenna for Handheld GPS

Specifications:

| PHYSICAL CONSTRUCTION | LOW NOISE AMPLIFIER |
|--|--|
| <p>Construction: Polycarbonate radome at the top, die-cast-shell at the bottom/ rubber gasket for water seal in between</p> <p>Dimension: 58mm(L) x 48mm(W) x 15mm(H).</p> <p>Weight: 63grams (excluding cable & connector)</p> <p>Standard Mounting: magnet mount and/or screw mount with 2 M3 tapped holes on the plastic flanges of SM-66</p> <p>Optional Mounting Plate: customized metal sheet</p> | <p>Center Frequency: 1575.42 MHz +/- 1.023 MHz.</p> <p>LNA Gain: 31 dB typ</p> <p>Bandwidth: 2 MHz min.</p> <p>Noise Figure: 1.5max.</p> <p>Out of Band Attenuation: 20dB min. @Fo+/-50MHz</p> <p>Supply Voltages: +4.5 ~5.5V DC</p> |
| CABLE & CONNECTOR | <p>Current Consumption: 28mA +/-3 mA</p> <p>Output Impedance: 50 ohm</p> |
| <p>Cable: 1.7 meter RG174/U (standard) cable, other length available</p> <p>Pulling Strength: 6 Kg @ 5sec with molded plastics on connector end for strain relief</p> <p>Connector: BNC</p> <p>Optional Adapters: Universal Connector Adapter</p> | OVERALL PERFORMANCE (Antenna Element, LNA & Cable) |
| <p>ANTENNA ELEMENT</p> <p>Center Frequency: 1575.42 MHz +/-1.023MHz</p> <p>Polarization: R.H.C.P. (Right Handed Circular Polarization)</p> <p>Absolute Gain @ Zenith: +5 dBi typical</p> <p>Gain @ 10° Elevation: -1 dBi typical</p> <p>Axial Ratio: 3 dB max.</p> <p>Output VSWR: 1.5 max.</p> <p>Output Impedance: 50 ohm</p> | <p>Center Frequency: 1575.42 MHz.</p> <p>Gain: 27 dB min.</p> <p>Noise Figure: 2.0 max.</p> <p>Axial Ratio: 3 dB max.</p> <p>Bandwidth: 2 MHz min.</p> <p>VSWR: 2.0 max.</p> <p>Output Impedance: 50 ohm</p> |
| | ENVIRONMENTAL SPEC. |
| | <p>Operating Temperature: -40° C~ +85° C</p> <p>Storage Temperature: -50° C~ +90° C</p> <p>Relative Humidity: 95% non-condensing</p> <p>Water Resistance: 100% waterproof</p> |

(*PS: The specification is subject to change without prior notice)