**Features**

- Mini GPS Antenna with High Gain
- 1575.42MHz +/- 3MHz
- Active gain: >4dB
- Active LNA/Filter +28dBi
- Noise 1.5dB
- VSWR <2.00
- DC Voltage 3.3V +/- 0.3V
- Polarisation RHCP
- VSWR <1.5:1
- 5metres RG174 Cable
- Waterproof to IP67
- SMA or MMCX Male Connector
- Dimensions 38 x 34 x 12 (Approx.)
- Mag Mount and Screw Fix

**Applications**

- Car GPS Systems
- Hand held GPS Systems

**Description**

A compact Antenna for GPS applications where high performance is required from a small size. The antenna includes a Low Noise Amplifier and incorporates both magnetic mount and screw fixings.

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Cable Length</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT-GPSC-SMA</td>
<td>Active GPS with cable and connector</td>
<td>5metres</td>
<td>SMA (M)</td>
</tr>
<tr>
<td>ANT-GPSC-MMCX</td>
<td>Active GPS with cable and connector</td>
<td>5metres</td>
<td>MMCX (straight)</td>
</tr>
</tbody>
</table>
ANT-GPSC

Mechanical Detail

ANT-GPSMG

<table>
<thead>
<tr>
<th>Cable</th>
<th>RG174/U</th>
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<tbody>
<tr>
<td>OD</td>
<td>Ø2.8±0.1mm</td>
</tr>
<tr>
<td>Cover</td>
<td>Black</td>
</tr>
<tr>
<td>SMA M</td>
<td>Gold(?)</td>
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Material: | Treatment:  |
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<tr>
<th></th>
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<tbody>
<tr>
<td>Drawer</td>
<td>Design</td>
</tr>
<tr>
<td>Aprev</td>
<td>Tolerance</td>
</tr>
<tr>
<td>Unit: mm</td>
<td>TITLE</td>
</tr>
<tr>
<td>File NO:</td>
<td>QR0402</td>
</tr>
<tr>
<td>Ver: B</td>
<td>Scale 1:1</td>
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<tr>
<td>SMA M+174U+12D</td>
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ANT-GPSMG-MMCX

MMCX(M) STRAIGHT

<table>
<thead>
<tr>
<th>RG174 (mm)</th>
<th>5000±50</th>
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<tbody>
<tr>
<td>1.60</td>
<td>5.20</td>
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<tr>
<td>35.2±0.1</td>
<td>12.60</td>
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</tbody>
</table>
ANT-GPSC

Test Data

GENERAL
ENVIRONMENTAL CONDITIONS
OPERATING TEMPERATURE
-30°C TO +60°C
STORAGE TEMPERATURE
-40°C TO +90°C (110°C MAX 1HR.)
RELATIVE HUMIDITY
20% TO 95%, rain

ELECTRICAL SPECIFICATIONS
INPUT VOLTAGE Require: 3.0 to 5.0 VDC
POWER CONSUMPTION 10 - 25 mA
OUTPUT CONNECTOR SMA male
Coax Cable RG174U
VSWR <2.00
Max Gain
> -4dBic @ -90deg<0<+90deg (over 75% Vol)

MECHANICAL SPECIFICATIONS
MOUNTING Magnetic Mount
PULLING FORCE OF MAGNET 29N
WATER PROOF Waterproof IP67
MAGNET MOUNT Withstand speed of up to 180Km/h.
CABLE PULLING FORCE 49N
BENDING TEST 1” radius After bending test 90 degree right and left
1,000 cycles, no permanent damage found.

LNA Gain (without Cable)
FREQUENCY RANGE 1,575.42 ± 1.1 MHz
GAIN 28dB (+30°C)

NOISE FIGURE 1.8 dB MAX. (+30°C)
OUT OF BAND REJECTION fo = 1,575.42 MHz
fo + 20MHz 7dB MIN.
fo + 50MHz 20dB MIN.
fo + 100MHz 30dB MIN.

OUTPUT IMPEDANCE 50ohm

Other Specifications
ESD ANTENNA SURFACE 5KV
WEEE & Rohs compliant Yes
RF Solutions Ltd. Recycling Notice
Meets the following EC Directives:

DO NOT
Discard with normal waste, please recycle.

ROHS Directive 2002/95/EC
Specifies certain limits for hazardous substances.

WEEE Directive 2002/96/EC
Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfills its WEEE obligations by membership of an approved compliance scheme.

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