

# GPS/ GLONASS Antenna

## MODEL: GA-38G

Small size and ruggedness, demand of vehicle locating and marine navigation GPS/ GLONASS antenna that will sustain harsh environment.



- High performance
- Out-band filtering & rejection
- Fully waterproof
- Voltage: 2.5 V ~5.5 V DC
- Provides excellent signal amplification
- 100% waterproof IPX8

**GA-38G** is the integration of a high performance GPS/ GLONASS patch antenna and a state-of-the-art low noise amplifier into a very low profile/ extremely compact/ fully waterproof enclosure which, when connected to a GPS/GLONASS receiver with 2.5~5.5V DC antenna power, provides excellent signal amplification and out-band filtering & rejection, provide 3V or 5V input Voltage is available.

### FEATURES:

- Compact Construction/ Low Profile/ Fully Waterproof
- Magnet and Screw Mount Base
- Excellent Temperature Stability
- Low Noise Figure
- High Sensitivity

### APPLICATIONS:

- Automobile GPS
- Bluetooth Receiver
- Car Tracking Navigation System
- AVL / Fleet Management Systems
- External Antenna for Handheld GPS
- External Antenna for PDA Navigator

### Specifications:

PHYSICAL CONDITION	
Constructions:	Polycarbonate- radome at top, die-cast shell at bottom/ rubber gasket for water seal in between
Dimensions:	40.5mm (L) x 38mm (W) x 12.3mm (H)
Weight:	50 grams (excluding cable & connector)
Color:	Standard in Black,
Mounting:	Magnet mount with two magnets & screw mount
Cable & Connector	
RF cable:	5 meter RG174/U (standard) cable, other length available
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector	BNC,TNC,FME,GT5,GT16,GT16F,HFC, MCX,MMCX, SMA, SMB or SMC in straight or right angle

**Antenna Element**

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Center Frequency:	1575Mhz & 1596-1610 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Bandwidth	10 MHz min. @S11≤-10 dB, 24MHz typ. @S11<-8dB
Gain @ 10° Elevation:	2 dBi typical.
Axial Ratio:	3 dB max.
Output VSWR:	1.5 max
Output Impedance:	50 ohm

**Low Noise Amplifier**

Power Gain:	1570 Mhz : 29db typ 1610 Mhz : 29db typ
Bandwidth:	50 MHz min.
Noise Figure:	1.5 typ
Outer Band Attenuation:	20 dB min. @ Fo +/-50 Mhz.
Supply Voltages:	2.3~5.5V DC.
Current Consumption:	2.5V : 6.6mA Typ. 3V: 10.6mA Typ. 4V: 14.6mA Typ. 5V: 20.6mA Typ.
Output Impedance:	50W ohm

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

Center Frequency:	1570 ~1610 Mhz.
Gain:	At 90° vertical to sky $30 \pm 4.5\text{dBi}$ (cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Noise Figure:	2.0 max.
Axial Ratio:	3 dB max.
Bandwidth:	10MHz min.
VSWR:	2.0 max.
Output Impedance:	50W ohm

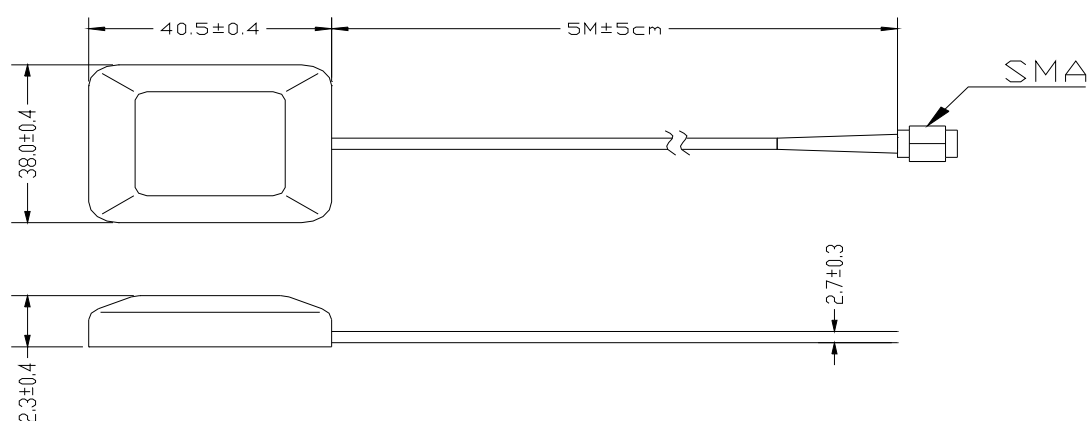
**Environmental**

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

\* This specification is subject to change without prior notice

Data Updated: JUN.10, 2010

Note:1:Cable Loss=(-1.2dB/m)



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