



GPS/GLONASS Antenna with Low Noise Amplifier

Model: SM-76G

WI-RD-D-037 V1.0

Integration of the high performance GPS / GLONASS patch antenna and a cutting-edge LNA into a very low profile extremely compact/ Water Resistance enclosure



©San Jose Technology, Inc. All specifications subject to change without notice.

Introduction:

The SM-76G is the integration of the high performance GPS/GLONASS patch antenna and a state-of-the-art low noise amplifier into a very low profile/extremely compact/fully water resistance enclosure. When connected to a GPS receiver with +2.5 to +5.0 VDC antenna power, it can provide excellent signal amplification and out of band filtering & rejection for that receiver.

Last but not least, the design of a double lock (or an anti-theft locking nut) provides sound security for the product.

Features:

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

Applications:

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

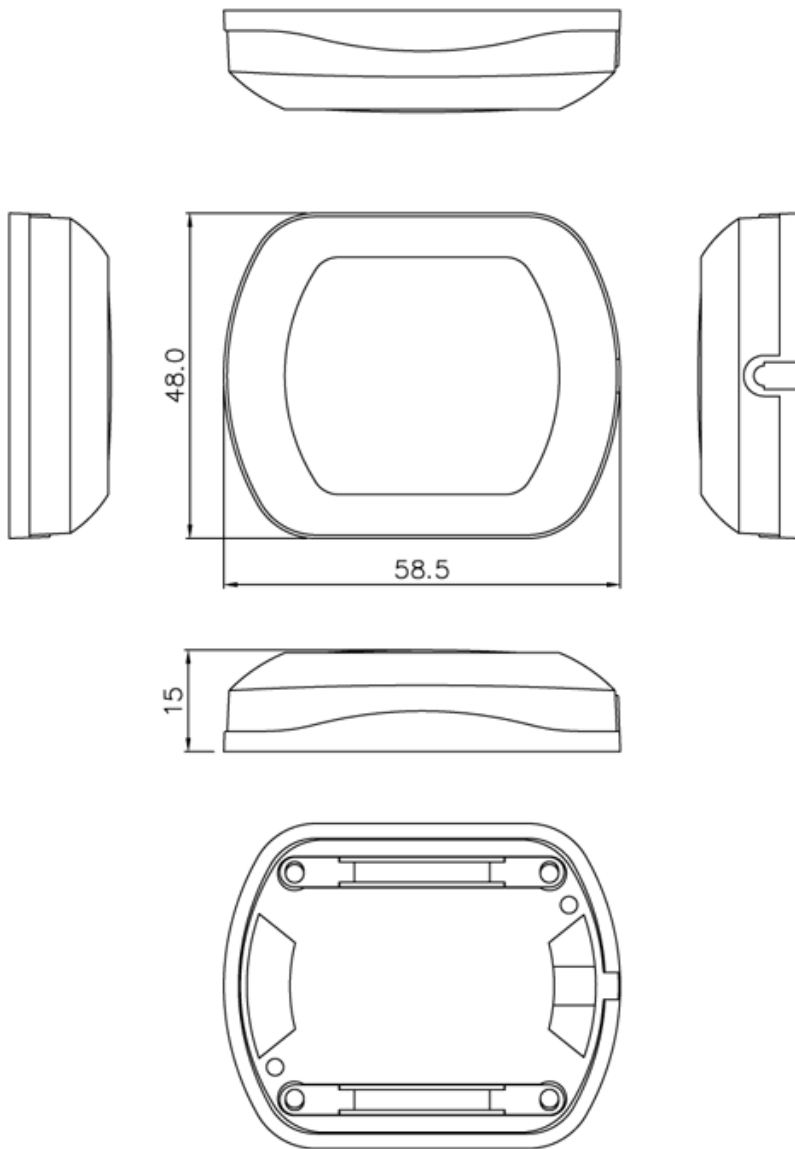
www.sanav.com

Specification:

Physical Condition	
Construction:	Polycarbonate radome enclosure and die-cast-shell at the bottom
Dimension:	58 mm(L)x 48 mm(W)x 15 mm(H)
Weight:	63 grams (excluding cable & connector)
Standard Mounting:	2 magnetic mounts, screw mount with 2 M3 tapped holes on the base.
Optional Mounting Plate:	Metal flanges with holes for permanent mount.
Cable & Connector	
RF Cable:	5 meters RG174/U (standard) cable & length (optional)
Pulling Strength:	6 Kg @ 5 sec.
Connector Available:	BNC, TNC, FME, MMCX, MCX, SMA, SMB or SMC. Straight or right angle.
Optional Adapters:	Universal Connector Adapter (FME to TNC/BNC/SMA/SMB/MCX)
Antenna Element	
Polarization:	R.H.C.P. (Right Hand Circular Polarization)
Gain at Zenith:	+1.5 dBic typical Mounted on the 70mm x 70mm square ground plane
Axial Ratio:	3 dB max. Mounted on the 70mm x 70mm square ground plane
Low Noise Amplifier	
Gain:	27 dB @ 3V typically
Band Width:	43 MHz min. @ S11≤-10 dB
Noise Figure:	1.5 Typical.
Supply Voltage:	2.5~5V DC
Current Consumption:	3V DC : 10.6 mA Typical 5.0V DC : 21 mA Typical
OVERALL PERFORMANCE (Antenna Element, LNA & Cable)	
Center Frequency:	1575.42 MHz ± 10 MHz & 1602 ± 8 MHz
Gain:	At 90° 27 ± 3dB (Cable loss) note:1. Mounted on the 70mm x 70mm square ground plane
VSWR:	2.0 max.
Output Impedance:	50 ohm
Environmental conditions	
Operating Temperature:	-40°C ~ +85°C
Storage Temperature:	-40°C ~ +90°C
Relative Humidity:	95% non-condensing

Note: 1: Cable loss-(-1.2dB/m)

Mechanical Diagram:



© San Jose Technology, Inc.
All specifications subject to change without notice.