

Mobile GPS Antenna with LNA

MODEL: MA-25

Compact & Sensitive GPS antenna with
Excellent Signal Amplification for Mobile Applications



MA-25 is the integration of a high performance GPS 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 receiver with 2.5~5.5V DC antenna power, provides excellent signal amplification and out-band filtering & rejection, 3V or 5V input Voltage is available.

FEATURES:

- 1.Compact Construction/ Low Profile
- 2.Fully Waterproof
- 3.Magnet and Screw Mount Base
- 4.Excellent Temperature Stability
- 5.Low Noise Figure
- 6.High Gain:28Db
- 7.Optional customized connectors

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APPLICATIONS:

1. Automobile GPS
2. Bluetooth Receiver
3. Car Tracking Navigation System
4. AVL / Fleet Management Systems
5. External Antenna for Handheld GPS
6. External Antenna for PDA Navigator

SPECIFICATIONS:

Physical Condition	
Construction	Polycarbonate- radome at top, die-cast shell at bottom/ rubber gasket for water seal in between
Dimension	46mm (L) x 38mm (W) x 12.5mm (H)
Weight	50 grams (excluding cable & connector)
Standard Mounting	Magnet mount with two magnets & screw mount
Optional Mounting Plate	customized metal sheet
Environmental Conditions	
Operation temperature	-40°C to +85°C
Storage temperature	-40°C to +100°C
Relative Humidity	95% non-condensing
Cable & Connector	
Cable	5 meter RG174/U (standard) cable, other length available
Pulling Strength	6 Kg @ 5sec with molded plastics on connector end for strain relief
Connector Available	BNC,TNC,FME (to be adapted), 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 +/-1.023MHz
Polarization	R.H.C.P. (Right Handed Circular Polarization)
Gain @ Zenith	5.0 dB Typ.
Gain @ 10°	-1 dB Typ.
Axial Ratio	90°: 3.0dB max. Mounted on the 60mm x 60mm square ground plane
Bandwidth	10 MHz min. @S11≤-10 dB
Low Noise Amplifier	
Center Frequency	1575.42 MHz +/- 1.023 MHz
Gain	28 dB Typ.
Noise Figure	1.5dB Typ.
Filter	20dB 25dB @ fo+/- 50MHz 30dB 35dB @ fo+/- 100MHz * fo=1575.42MHz
Supply Voltages	2.5 ~5.5V DC
Current Consumption	2.5V : 6.6mA Typ. 3.0V: 8.6mA Typ. 4.0V: 12.6mA Typ. 5.0V: 16.6mA Typ.
Output Impedance	50 ohm
Output VSWR	2.0 max.
Overall Performance (Antenna Element, LNA & Cable)	
Frequency range	1575.42 +/- 1.023 MHz
Gain	At 90° vertical to sky 30 +/- 4.5dBi (cable loss) Note:1
Output Impedance	50 ohm
VSWR	2.0 max.