

Lorry Locating GPS Antenna

MODEL: GA50C

(High Gain)

Small size and ruggedness, demand of lorry locating and car navigation GPS antenna that will sustain harsh environment.



- Low noise figure
- Fully weather proof.
- Ultra-high Sensitivity
- Compact construction
- Excellent temperature stability



The antenna system **GA50C** is the integration of the high performance GPS patch antenna and a low noise amplifier into state-of-the-art low a very low profile/extremely compact/fully waterproof antenna signal enclosure. When connected to a GPS receiver with 2.5~+5.5V DC antenna power it provide excellent signal amplification and out-band-rejection for that receiver.

Features:

GPS antenna with double threaded bolts and through holes for cable routing with course & fine treaded pitch locking for wing-nut fastener and lock-nut to prevent vibrations and un-authorize removal.

SPECIFICATIONS:

Physical Condition	
Construction	Polycarbonate radome,detachable cable/connector for easy mount, rubber-O-ring between top radome
Dimension	43mm (L) x 45mm (H)
Weight	50 grams (excluding cable & connector)
Mounting	Base locks
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 for car 5 meter RG58/u for lorry

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)
Absolute Gain @ Zenith	3 dBic Typ.
Gain	90° : 2.0dBi min. 20° : -5.0dBi min. Mounted on the 60mm x 60mm square ground plane
Axial Ratio	90° : 3 .0dB max. Mounted on the 60mm x 60mm square ground plane

Low Noise Amplifier

Center Frequency	1575.42 MHz +/- 1.023 MHz
Gain	28+/-4.5dB
Bandwidth	10 MHz min. @S11≤-10 dB
Noise Figure	1.5dB Typ.
Filter	25dB @ fo± 50MHz 35dB @ fo± 100MHz * fo=1575.42MHz
Supply Voltages	2.5 ~5.5V DC
Current Consumption	2.5V : 6.6mA Typ. 3V: 8.6mA Typ. 4V: 12.6mA Typ. 5V: 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° 30 ± 4.5dBi-(cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Output Impedance	50 ohm
VSWR	2.0 max.

(This specification is subject to change without prior notice)