

5012D-U Smart GPS Antenna with Integrated Receiver

The 5012D-U GPS Receiver + Antenna incorporates a highly sensitive 16-channel, very quick time-to-fix GPS Receiver, and a high performance active/filtered GPS antenna. It features high performance GPS Engine with embedded flash memory, a Low Noise Amplifier, SAW filter, as well as a precision tuned ceramic patch element for maximum GPS signal reception. The 5012D-U High Sensitivity GPS Receiver + Antenna is housed in a compact, rugged weatherproof magnet or screw mount enclosure.



5012D-U

Features

- Highly Sensitive: -159 dBm tracking
- Quick Time to Fix: 39 sec cold start
- 16 channel GPS Engine
- Standard NMEA 0183 GPS output
- WAAS and EGNOS supported
- Low power & standby modes
- Weatherproof industrial grade enclosure

Antenna Response Specifications

| Center Frequency | Nominal Gain | Polarization | Out-of-Band Rejection |
|-------------------------|---------------------------------|------------------------|---|
| 1575.42 MHz ± 10 MHz | 3 dBic @ 90° -2.0 dBic @ 20° | Right Hand Circular | +15 MHz: 10 dB / -15 MHz: 30 dB +20 MHz: 20 dB / -20 MHz: 30 dB +40 MHz: 40 dB / -40 MHz: 40 dB |

Antenna Electrical Specifications

| Voltage | Current Draw |
|----------------------------|--------------|
| 5 volts USB comm interface | 85 mA max |

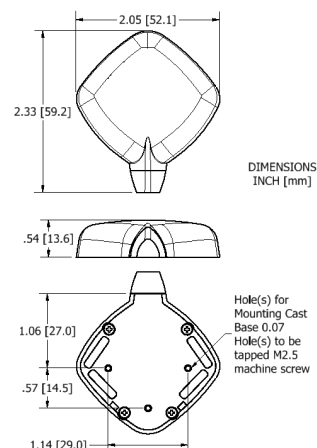
Mechanical Specifications

| Antenna Dimensions | Weight | Mounting |
|---|--------------------|--|
| 2.05 L x 2.33 W x 0.54 H in. (52.1 x 59.2 x 13.6 mm) | .26 lbs (120 g) | Magnetic (5 lb lift-off) or Screw mount (M2.5 pre-threaded) |

| Shock | Vibration | Cable Length | Interface |
|--------------------------------------|--|---|-----------|
| Vertical axis 50G, other axes 30G | 3 axis, sweep tt= 15 min; 10 - 200 Hz log sweep: 3G | 9.8'(3 meters) highly flexible USB cable | USB |

Environmental Specifications

| Temperature Range | Weather Proof |
|--------------------------|---------------|
| -40°C to +85°C operating | IP67* |



GPS Performance

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|--|
| Frequency: L1: 1575.42 MHz |
| Channels: 16 channels parallel |
| Sensitivity: Acquisition: -146 dBm Tracking: -159 dBm |
| Accuracy: 2 meter (autonomous) < 1 meter (SBAS) |
| Time to First Fix: Cold start: 39 sec Warm start: 34sec Hot start: 2.5 sec Reacquisition: < 1 sec |
| Serial Protocol: Output: NMEA 0183 Baud Rate: 4800 bps (default), user configuration up to 115 kbps Update Rate: 1 Hz NMEA Message: GGA, VTG, GSA, GSV, RMC |

* When installed according to the manufacturer's installation instructions.