

GPS Receiver + Antenna with Digital Interface RS232 Terminations

The 5012D-RD Series GPS Receiver + Antenna incorporate a 16-channel high sensitivity receiver with fast, first time to GPS fix. This, coupled with position information maintained over power cycles, provides immediate and accurate position reporting. All models in the 5012D-RD series all come with a CMOS to RS232 adapter cable connected by two, 4-pin DIN connectors for ease in installation.

Features

- Plug and Play GPS tracking
- Simple Interface to Data-Ready Radios
- NMEA RMC message output
- Maintains position over power cycles
- RS232 (TTL interface option)
- Magnetic and screw hole mount
- Rugged weatherproof IP67 housing
- Ideal for embedded applications

RF/Electrical Specifications

Frequency Range	Polarization	Voltage
1575.42 MHz	Right Hand Circular	8 to 18 VDC

Mechanical Specifications

Antenna Dimensions	Weight *	Mounting
2.1" x 2.3" x .07" (52.1 x 58.9 x 16.6 mm)	4.2 oz (120 g)	Magnetic (5 lb lift-off) or Screw mount (M2.5 pre-threaded)

Environmental Specifications

Temperature Range	Humidity
-40°C to +85°C operating (-45°C to +85°C storage)	95% max (non-condensing)

Interface/Connector

Model	Interface/Connector Description
5012D-RD9	RS232/DB9 Male with 3 meter cable
5012D-RD15	RS232/DB15 Male with 3 meter cable
5012D-RD25	RS232/DB25 Male with 3 meter cable

* Does not include adapter cable

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5012D-RD9



RD9 (left) and RD15 (right) Connectors



RD25 Connector



GPS Performance

Frequency: L1, 1575.42 MHz
Channels: 16 channels parallel
Sensitivity: Acquisition: -146dBm Tracking: -159dBm
Accuracy: 2m (autonomous) <1 metre (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 configurable up to 115kbps Update Rate: 1Hz NMEA Message: GGA, VTG, GSA, GSV, RMC