antenova[®] m2m



GPS RADIONOVA® M10372

RF Antenna Module

Antenova's GPS RADIONOVA® M10372 RF Antenna Module is a single package solution to combine RF and antenna on the same module. The M10372 is a highly integrated GPS RF Antenna Module suitable for L1-band GPS and A-GPS systems. The device is based on the high performance CSR SiRFstarIV™ GPS architecture combined with Antenova's high efficiency antenna technology, and is designed to provide an optimal radiation pattern for GPS reception.

All front-end and receiver components are contained in a single package laminate base module, providing a complete GPS receiver for optimum performance. The M10372 operates on a single 1.8V positive bias supply with low power consumption and available low power modes for further power savings. The M10372 is supported by SiRF stand alone software and is compatible with UART, SPI and I²C host processor interfaces. Custom versions of M10372 can also incorporate an antenna switch for optional external active antenna connection.

Providing a true drop in solution with the antenna and RF in a single package, GPS RADIONOVA® M10372 offers ease of integration and shorter design cycles for faster time to market.

Applications:

- Personal Navigation Devices (PNDs)
- Portable Media Players (PMPs)
- Asset Tracking / Personal Safety
- Ultra Mobile Devices (UMDs)

Features:

- Low cost single package RF Antenna Module
- CSR SiRFstarIV[™] GPS Chipset Architecture
- Low 5mm height for thin devices
- Low current consumption
- Optional external antenna support
- Resistant to de-tuning

28mm

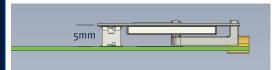


13mm

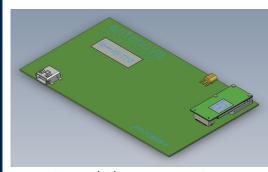
Bottom (Component Side View)
(w/shield can)



Top (Antenna Side View)



Typical Planar Mount
(Side view)



Typical Placement on PCB

PS RADIONOVA® M10372 RF antenna module

electrical mechanical

Frequency: 1575 MHz Dimensions: 28 x 13 x 5mm

Supply Voltage 1.8V

Supply Current: 30mA Mounting: Planar mount / low profile

Hibernate Current: 30 µA

COM Interface: UART / SPI / I²C Connector: 30pin board-to-board

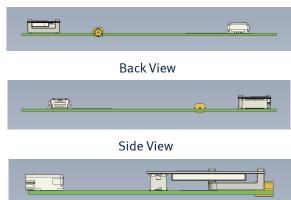
Output Protocol: SiRF Binary / NMEA 0183

Operating Temperature: -30°C to +85°C Groundplane: 40 x 30mm min

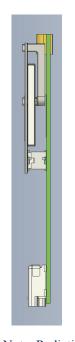
Typical RF Antenna Module Placement

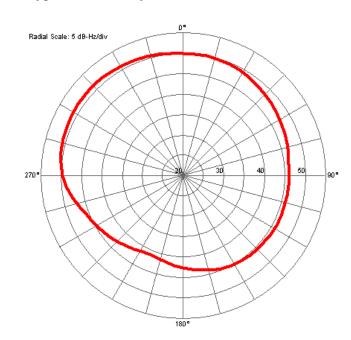
M10372 Module Connector

Front View



Typical Sensitivity Pattern





Note: Radiation pattern measured on Antenova M2M's standard test board. Tuning may be needed in product integration to adjust radiation pattern.



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