



## GPS RADIONOVA<sup>®</sup> M10372 RF Antenna Module

Antenova's GPS RADIONOVA<sup>®</sup> 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<sup>™</sup> 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 I<sup>2</sup>C host processor interfaces. Custom versions of M10372 can also incorporate an antenna switch for optional external active antenna connection.

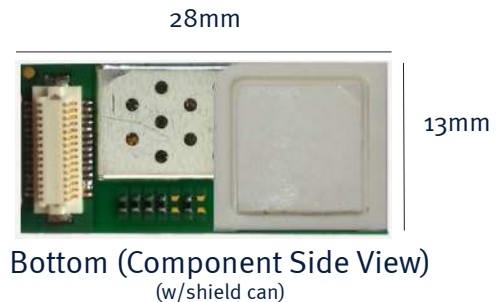
Providing a true drop in solution with the antenna and RF in a single package, GPS RADIONOVA<sup>®</sup> M10372 offers ease of integration and shorter design cycles for faster time to market.

### Applications:

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

### Features:

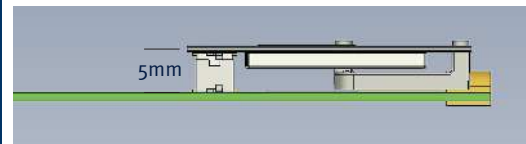
- Low cost single package RF Antenna Module
- CSR SiRFstarIV<sup>™</sup> GPS Chipset Architecture
- Low 5mm height for thin devices
- Low current consumption
- Optional external antenna support
- Resistant to de-tuning



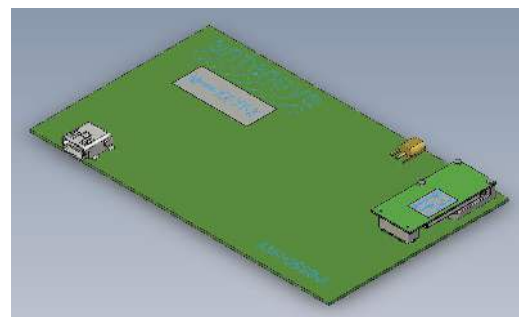
Bottom (Component Side View)  
(w/shield can)



Top (Antenna Side View)



Typical Planar Mount  
(Side view)



Typical Placement on PCB

# GPS RADIONOVA® M10372 RF antenna module

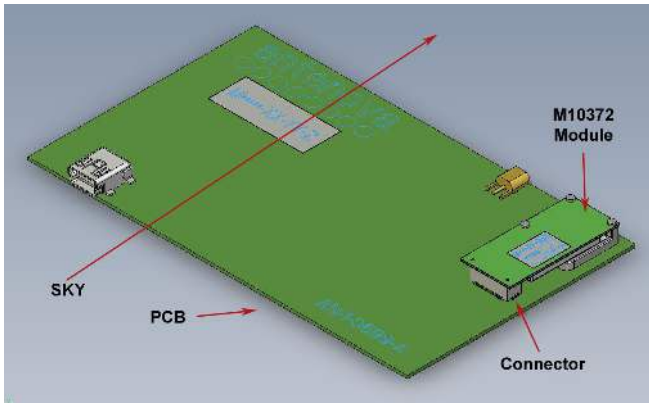
## electrical

Frequency:	1575 MHz
Supply Voltage	1.8V
Supply Current:	30mA
Hibernate Current:	30 µA
COM Interface:	UART / SPI / I <sup>2</sup> C
Output Protocol:	SiRF Binary / NMEA 0183
Operating Temperature:	-30°C to +85°C

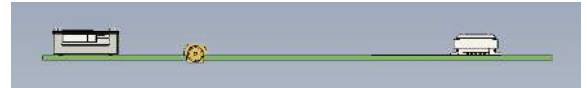
## mechanical

Dimensions :	28 x 13 x 5mm
Mounting:	Planar mount / low profile
Connector:	30pin board-to-board
Groundplane:	40 x 30mm min

Typical RF Antenna Module Placement



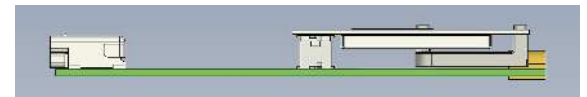
Front View



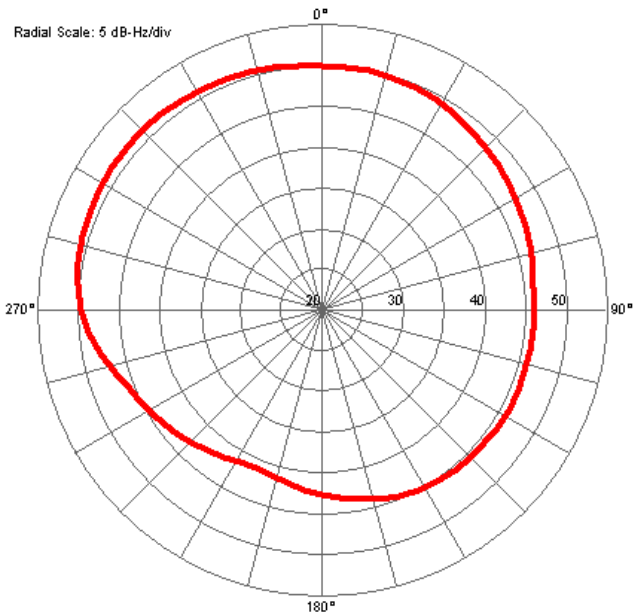
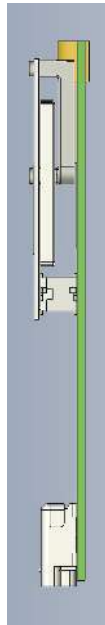
Back View



Side 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.



Certificate No: 4598



Antenova Limited • Far Field House • Albert Road • Stow-cum-Quy • Cambridge • CB25 9AR • UK  
 t: +44 (0)1223 810600 f: +44 (0)1223 810650  
 sales@antenova-m2m.com • www.antenova-m2m.com

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