



ROVER

Vehicle Tracking Unit

Product Features

- Unit size: 95(L) * 77(W) * 30(H)mm
- Weight: 220 g
- Aluminum case
- Case Environmental Characteristics:
 - Operational Temperature: - 25 ~ + 70 °C (board temperature)
 - Storage temperature -40°C to +80°C
- 4 digital outputs (200mA max)
- 6 digital inputs (5 negative inputs, 1 positive input)
- 1 analog input (0 to +3.3 volt)
- 1 RJ11 port for voice I/O
- 1 RJ45 MULTI port for serial RS232 (low speed 9600 Baud) and Direct GPS output RS232 (9600 Baud - depending on GPS module).
- Electrical Characteristics: Input Voltage: + 6~37 Volt DC regulated / 2A-MAX (GSM Transmit)
- Power Consumption:
 - 12 Volt - 100~320 mA (GPS On Line, GSM/GPRS On Line)
 - 12 Volt - 60 mA (GPS on line, GSM standby)
 - 12 Volt - <20 mA (GPS in Power Down Mode, GSM Standby)
- Backup Power: 1100 mAh Li-ION battery
- Memory Backup: EE prom
- Unleaded version modules (RoHS compliant)

Firmware Features

- SMS mode/ SMS+GPRS mode
- Upload/download settings, locations, and update firmware via GPRS
- Open platform for two way communication between control center and MDT
- Special protocol for GPRS with hand shaking. Minimize communication cost and data package lost.
- MCU dead lock protection
- Main power lost detection or input power below or above set value.
- Multiple location memory requests.
- Battery back-up in case main battery is CUT-OFF.
- Auto GEO-Fencing (Geo fencing input activated when drivers remove vehicle keys)
- Un-lock Doors: Allow owner to un-lock vehicle door from his mobile phone using simple SMS commands.
- SOS panic button: In demand alarm SMS emergency data and activates the vehicle external hazard warning system.
- Disable vehicle: Immobilize remotely using mobile phone or WEB browser in response to an alarm.
- Alarm Alert: Integrated with vehicle alarm system to trigger current status of the vehicle in case of tampering .

Technical specification

GPS Specifications:

SiRF STAR III chipset

General

- 1). Frequency: 1575.42 MHz.
- 2). C/A code: 1.023 MHz chip rate.
- 3). Channels 20

Accuracy (Open Sky)

- 1). Position: 10 meters, 2D RMS.
- 2). 7 meters 2D RMS, WAAS corrected.
- 3). Time 1 microsecond synchronized to GPS time.

Datum

- 1). Default: WGS-84.
- 2). Other Support different datum by request.

Acquisition Rate (Open sky, stationary requirements)

- 1). Reacquisition: 0.1 sec., average.
- 2). Hot start: 1 sec., average.
- 3). Warm start: 38 sec., average.
- 4). Cold start: 42 sec., average.

(Note : Unit will go into diagnostic mode 1 minute after power up.)

Dynamic Conditions

- 1). Altitude: 18,000 meters (<60,000 feet) Max
- 2). Velocity: 736 m/s (<1,000 knots) Max
- 3). Acceleration: 4 G, Max
- 4). Jerk: 20 meters/second, Max

Sensitivity

Minimum signal tracked: -159dBm

GSM Modem Specifications:

Frequency bands

Tri-band: EGSM 900, DCS 1800, PCS 1900 or

Quad-band : EGSM 850 ,900 ,1800 , 1900 (option)

Compliant to GSM Phase 2/2+

GSM class Small MS

Transmit power Class 4 (2W) at EGSM900

Class 1 (1W) at DCS1800 and PCS 1900

GPRS connectivity

GPRS multi-slot class 10

GPRS mobile station class B

GPRS data downlink transfer: max. 85.6 kbps

GPRS data uplink transfer: max. 42.8 kbps

Coding scheme: CS-1, CS-2, CS-3 and CS-4

Supports the protocols PAP (Password Authentication Protocol) usually used for PPP connections.

Integrated TCP/IP protocol.

Support Packet Switched Broadcast Control Channel (PBCCH)

CSD transmission rates: 2.4, 4.8, 9.6, 14.4 kbps, non-transparent

Unstructured Supplementary Services Data (USSD) support

SMS, MT, MO, CB, Text and PDU mode

SMS storage: SIM card

Support transmission of SMS alternatively over CSD or GPRS.

SIM interface Supported SIM card: 1.8V, 3V

Standard Kit



Rover Unit

GPS Antenna

GSM Antenna

Document CD

Serial Cable

I/O Cable

Optional Accessories



Speaker & Microphone



Temperature Sensor



I-Button & Reader



I-Button Key Ring Mount



Relay Box



Combo-4N GPS&GSM Antenna



GMAR-900 GPS&GSM Marine Antenna



Bluetooth Dongle