



GV65

Compact Vehicle Tracking Device



- 📶 **Multiple GNSS Support With u-blox M8 Chipset**
- 📶 **Multiple I/Os Including Smart Input, Ignition Detection and Fuel Level Sensing**
- 📶 **1-Wire Supporting Temperature Sensors and iButton Driver ID**
- 📶 **Support Virtual Odometer**

The GV65 is a mini GNSS tracker designed for a wide variety of vehicle tracking applications. It has multiple digital/analog I/Os and includes a 1-wire interface used for driver ID and temperature monitoring. Its built-in GNSS subsystem supports GPS and GLONASS and has an optional external antenna allowing superior sensitivity and fast time to first fix. Its quad band GPRS/GSM subsystem supports 850/900/1800/1900 MHz allowing the GV65's location to be monitored in real time or periodically tracked by a backend server and mobile devices. Its built-in 3-axis accelerometer allows motion detection and sophisticated power management. System integration is straightforward as complete documentation is provided for the full featured @Track protocol. The @Track protocol supports a wide variety of reports including emergency, geo-fence boundary crossings, driving behavior, external power supply monitoring and scheduled GNSS position.



Advantages

- Wide operating voltage range 8V to 32V DC
- Internal u-blox chipset
- Quad band GSM/GPRS 850/900/1800/1900 MHz
- Embedded full featured @Track protocol
- Multiple I/O interfaces for monitoring and control
- Internal 3-axis accelerometer for driving behavior monitoring, power saving and motion detection
- Internal GSM antenna
- Internal or external GNSS antenna
- CE/E-Mark certified

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GSM Specifications

| | |
|------------------------|---|
| Frequency | Quad band: 850/900/1800/1900 MHz Compliant to GSM phase 2/2+ -Class 4 (2W @ 850/900 MHz) -Class 1 (1W @ 1800/1900 MHz) |
| GPRS | GPRS multi-slot class 10 GPRS mobile station class B |
| RMS Phase Error | 5 deg |
| Max Out RF Power | GSM850/GSM900: 33.0±2 dBm DCS/PCS: 30.0±2 dBm |
| Dynamic Input Range | -15 ~ -108 dBm |
| Receiver Sensitivity | Class II RBER 2% (-107 dBm) |
| Stability Of Frequency | < 2.5 ppm |
| Max Frequency Error | ±0.1 ppm |

GNSS Performance (using GPS and GLONASS)

| | |
|-------------------------|---|
| GNSS Receiver Type | 72-channel u-blox All-In-One GNSS receiver |
| Sensitivity | Autonomous: -147 dBm Hot start: -155 dBm Tracking & navigation: -162 dBm Reacquisition: -160 dBm |
| Position Accuracy (CEP) | Autonomous: < 2.5m SBAS: < 2.0m |
| TTF (Open Sky) | Cold start: 30s average Warm start: 28s average Hot start: 1s average |

Interfaces

| | |
|-----------------|---|
| Digital Inputs | Three digital inputs One positive trigger for ignition detection Two negative trigger inputs for normal use |
| Digital Outputs | Two digital outputs, open drain, 150 mA max current drain, one output with internal latch circuit |
| Analog Inputs | One analogue input with selectable input voltage range (0 - 12V or 0 - 30V) |
| 1-Wire | Support 1-wire temperature sensor and iButton Driver ID |
| GSM Antenna | Internal only |
| GNSS Antenna | Internal and optional external GPS/GLONASS antenna |
| Indicator LED | CEL, GPS and power |
| Mini USB Port | Mini USB port for upgrading and debugging |

General Specifications

| | |
|-----------------------|--|
| Dimensions | 73mm*54mm*22.7mm |
| Weight | 56g |
| Operating Voltage | 8V to 32V DC |
| Operating Temperature | -30°C ~ +80°C -40°C ~ +85°C for storage |

Air Interface Protocol

| | |
|-----------------------------|---|
| Transmit Protocol | TCP, UDP, SMS |
| Scheduled Timing Report | Report position at preset time and distance intervals |
| Geo-fence | Geo-fence alarm and parking alarm, support up to 20 internal geo-fence regions |
| Power On Report | Report when the device is powered on |
| Power Off Report | Report when the device is powered off |
| Motion Detection | Motion alarm based on internal 3-axis accelerometer |
| Special Alarm | Special alarm based on the digital inputs |
| Power Supply Monitoring | Alarm report for the external power of the device |
| Tow Alarm | Alarm report for movement when ignition off |
| Speed Alarm | Flexible speed monitoring for unusual speed alarm |
| Remote Control | OTA control of device outputs |
| Fuel Level Sensing | Configurable support for fuel level sensing using the vehicle's built-in fuel sensor or gauge |
| Temperature Detection | Alarm for temperature detection |
| Identification | Support iButton |
| Driving Behavior Monitoring | Aggressive driving behavior detection, e.g. harsh braking and acceleration |
| Crash Detection | Accident data collection for reconstruction and analysis |

Queclink Wireless Solutions Co., Ltd.

Add: Office 501, Building 9, No. 99 Tianzhou Road, Shanghai, China 200233
Tel: +86 21 5108 2965
Fax: +86 21 5445 1990
Web: www.queclink.com
Email: sales@queclink.com

