GV300W

WCDMA/GSM Vehicle Tracking Device

- **Triple Band UMTS/HSDPA and Quad Band GSM/GPRS Frequencies**
- **Wide Operating Voltage Range 8V to 32V DC**
- **Multiple I/Os Including 1 Smart Input**
- **GARMIN FMI/Multiple Sensors/Voice Support**

The GV300W is a compact GPS tracker designed for a wide variety of vehicle tracking applications. It has multiple I/O interfaces that can be used for monitoring or controlling external devices. Its built-in GPS receiver has superior sensitivity and fast time to first fix. Its triple band WCDMA subsystem supports UMTS/HSDPA 850 (Band V)/1900 (Band II)/2100 (Band I) MHz and quad band GSM/GPRS 850/900/1800/1900 MHz allowing the GV300W'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 extends battery life through sophisticated power management algorithms. 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, low battery and scheduled GPS position.

Advantages

- Wide operating voltage range 8V to 32V DC
- Internal u-blox chipset
- Low power consumption, long standby time with internal battery
- Triple band frequencies UMTS/HSDPA 850 (Band V)/1900 (Band II)/2100 (Band I) MHz and 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 supporting power saving and motion detection
- Internal UMTS/HSDPA and GSM antennas
- Internal and external GPS antennas
- CE/FCC/E-Mark certified

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RF Specifications

Frequency	GSM: 850/900/1800/1900 MHz UMTS: 850/1900/2100 MHz
Transmitting Power	Class 4 (33±2 dBm) for GSM 850 and EGSM 900 Class 1 (30±2 dBm) for DCS 1800 and PCS 1900 Class 3 (24+1/-3 dBm) for UMTS 850/1900/2100
GSM/GPRS Data Features	GPRS: Support GPRS multi-slot class 12 (10 by default) Coding scheme: CS-1, CS-2, CS-3 and CS-4 Maximum of four Rx time slots per frame
Transmission Data	HSDPA R5: Max 3.6 Mbps (DL) WCDMA R99: Max 384 kbps (DL)/Max 384 kbps (UL) GPRS: Max 85.6 kbps (DL)/Max 85.6 kbps (UL)
HSDPA and WCDMA Features	HSDPA data rate corresponds with 3GPP R5. 3.6 Mbps on downlink WCDMA data rate corresponds with 3GPP R99/R4. 384 kbps on downlink and 384 kbps on uplink Support both 16-QAM and QPSK modulation

GPS Specifications

GPS Chipset	u-blox All-In-One GPS receiver
Sensitivity	Autonomous: -147 dBm Hot start: -156 dBm Reacquisition: -160 dBm Tracking: -162 dBm
Position Accuracy (CEP)	Autonomous: < 2.5m SBAS: < 2.0m
TTFF (Open Sky)	Cold start: 27s average Warm start: 27s average Hot start: 1s average

General Specifications
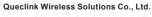
Dimension	80mm*49mm*26mm
Weight	72g
Backup Battery	Li-Polymer 250 mAh
Operating Voltage	8V to 32V DC
Operating Temperature	-30°C ~ +70°C -30°C ~ +80°C for storage

Interfaces

Digital Inputs	Three digital inputs One positive trigger for ignition detection Two negative trigger inputs for normal use
Configurable Inputs	One special input can be configured to negative trigger digital input or analog input (0-16V)
Analog Inputs	One analog input (0.3-16V)
Digital Outputs	Two digital outputs, open drain, 150 mA max drive current
Latched Digital Outputs	One digital output with internal latch circuit, open drain, 150 mA max current drain
Two-way Audio	Two differential outputs/one single end input
UMTS/HSDPA and GSM Antennas	Internal only
GPS Antenna	Internal and optional external GPS antenna
Indicator LED	CEL, GPS and power
Mini USB Port	Mini USB port for upgrading and debugging
Serial Port	One RS232 serial port on 16 PIN molex type connector, for external devices (GARMIN protocol support)

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
Low Power Alarm	Alarm when backup battery is low
Power On Report	Report when the device is powered on
Tow Alarm	From internal 3-axis accelerometer
Antenna Disconnect Alarm	Alarm when the external GPS antenna is disconnected
Special Alarm	Special alarm based on the digital/analog inputs
Remote Control	OTA control of outputs

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