



GL300

Advanced Asset Tracker



- 📶 **Multiple GNSS Support With u-blox M8 Chipset**
- 📶 **Vibration Feedback Confirming Successful Button Operation**
- 📶 **Thumb Sized Button Allowing Easier Emergency Alert or Instant Geo-fence Setting**
- 📶 **Water Resistant**
- 📶 **Full Power Management**
- 📶 **400 Hours Standby Time, Up to 200 Days Standby Time With External Battery Accessory**

The water resistant GL300 is a powerful GNSS locator designed for lone worker, vehicle, pet and asset tracking applications. The thumb sized button makes this device ideal for applications requiring rapid notification of emergency alert or regular setting of geo-fences based on current location. Its built-in GNSS receiver supports GPS and GLONASS and has superior sensitivity and fast time to first fix. Its quad band GPRS/GSM subsystem supports 850/900/1800/1900 MHz allowing the GL300'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 GNSS position.



Advantages

- Water resistant
- Quad band GSM/GPRS 850/900/1800/1900 MHz
- Embedded full featured @Track protocol
- Internal GSM/GNSS antennas
- Thumb sized button allowing easier emergency alert or instant geo-fence setting
- Low power consumption, long standby time with internal battery
- Internal 3-axis accelerometer for power conservation and motion detection
- Full power management, can be connected to external DC power or battery
- FCC 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 12 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 M8 engine |
| Sensitivity | Autonomous: -147 dBm Hot start: -155 dBm Tracking & navigation: -162 dBm Reacquisition: -160 dBm |
| Position Accuracy | Autonomous: 2.5m CEP SBAS: 2.0m CEP |
| TTFF (Open Sky) | Cold start: 30s average Warm start: 28s average Hot start: 1s average |

Interfaces

| | |
|---|--|
| Digital Inputs | Two digital inputs One positive trigger for ignition detection One negative trigger input for normal use |
| Power Button | Power on and power off, can be disabled by the air interface protocol |
| Function Button With Vibration Feedback | Emergency alert or instant geo-fence |
| GSM/GNSS Antennas | Internal only |
| Indicator LED | GSM, GPS and battery status |
| Mini USB Interface | For external power and configuration |

General Specifications

| | |
|--------------------------|---|
| Dimensions | 68.5mm*38.5mm*23.5mm |
| Weight | 60g |
| Internal Battery | Li-Polymer 1300 mAh |
| Standby Time | Without reporting: 400 hours 5 minutes reporting: 140 hours 10 minutes reporting: 180 hours |
| Water Resistance | IPX5 compliant |
| Charging Voltage | 5V DC |
| External Battery Voltage | 3.5V to 4.5V DC |
| Operating Temperature | -20°C ~ +55°C |

Air Interface Protocol

| | |
|---------------------|---|
| Transmit Protocol | TCP, UDP, SMS |
| Scheduled Report | Report position and status according to preset time schedules |
| Geo-fence | Support up to 5 internal geo-fence regions |
| Power On/Off Report | Report when the device is powered on or off |
| Low Power Alarm | Alarm when battery is low |
| SOS/Emergency Alarm | SOS alarm when function key is pressed |
| Special Alarm | Special alarm based on digital input |
| Motion Detection | Motion alarm based on internal 3-axis accelerometer |



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