

GL500Series



GL500 Series (LTE) includes three waterproof GNSS trackers that feature up to 7 years standby time powered by internal batteries. The series is ideal for a range of tracking applications that require real-time monitoring on temperature and light.

GL500 series (LTE) supports LTE CAT-M1/NB1 network on multiple bands of operation globally with a fallback to EGPRS.

Certificate

Region	Sub Model	Certificate
North America	GL500MA	PTCRB/FCC/Verizon/AT&T
North America	GL500MG_S	FCC/Sprint
Worldwide	GL500MG	FCC/Verizon/PTCRB/AT&T/CE (Planned)

Features

- Rapid & Covert Installation.
- 7 year standby time with internal battery
- Thumb-sized button with vibration feedback allowing confirmed emergency alert or instant geo-fence setting
- Motion detection based on internal 3-axis accelerometer
- Automatic mode switching – power saving mode for long standby time and continuous mode for emergency tracking
- Temperature monitoring based on internal temperature sensor
- Tamper detection based on internal light sensor
- Waterproof IP67 compliant
- Optional magnetic mounting

LTE Specifications

Operating Band: Cat M1/Cat NB1:
 LTE FDD:
 B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25 */B28
 LTE TDD: B39 (For Cat M1 Only)
Data Transm.: eMTC (DL) 375Kbps
 eMTC (UL) 375Kbps
 NB1 (DL) 32Kbps
 NB1 (UL) 70Kbp

*B25 is supported on GL500MG_S

GNSS Specifications

GNSS Type u-blox All-in-One GNSS receiver
Sensitivity Autonomous: -147 dBm
 Hot Start: -156 dBm
 Reacquisition: -160 dBm
 Tracking: -162 dBm

Position Accuracy (CEP): Autonomous: < 2.5m
TTFB (Open Sky) Cold start: 27s average
 Warm start: 27s average
 Hot start: 1s average

General Specifications

Dims

- 3.43”(L)x x2.01”(W) x 1.18(H) / 87 x 51 x 30mm
- 3.43”(L)x x2.01”(W) x 1.32(H) / 87 x 51 x 33.5mm (magnetic case mounting version)

Weight:

- 4.94oz (140g)
- 5.64oz (160g) (magnetic case mounting version)

Backup Battery Standby Time

3 CR123A lithium batteries, 1400 mAh
 Standby current: < 8 uA
 1 report per day (GNSS on): 5 years
 1 report per day (cell ID only): 7 years

Waterproof Op Temperature

IP67 compliant
 -25°C ~ +60°C

Internal Temperature Sensor:

For temperature monitoring
 Accuracy: ±0.5°C

Internal Light Sensor

For tamper detection

Internal Motor

For vibration feedback after successful operation of function button

Magnetic Mounting Case (Optional) For easy installation on metal surface



AIR INTERFACE PROTOCOL

- **Command Set:** @Track protocol command
- **Transmit Protocol:** TCP, UDP, SMS
- **Working Modes:** Power saving mode for long standby time
 Continuous mode for emergency tracking
- **Scheduled Timing Report:** Report position and status at present time intervals
- **Low Power Alarm:** Alarm when internal battery is low
- **Wakeup Report:** Report when the device wakes up
- **Motion Detection:** Motion detection based on internal 3-axis accelerometer
- **Rpt Frequency Adjustment** Intelligent adjustment of reporting frequency

INTERFACES

- **Power Button:** Used for power on/off and switch of device working mode
- **LTE Antenna:** Internal Only
- **GNSS Antenna:** GNSS, PWR