

A powerful handheld GPS tracker with mini size, light weight and superior sensitive receiving ability



GR-500 Handheld GPS Tracker



Highlights

A powerful handheld GPS tracker with mini size, light weight and superior sensitive receiving ability. GR-500 is designed for many applications such as human body or vehicle security, the specific target to be tracked, emergency call, the management for specific purpose and target. Based on the newest SiRF Star III chip and SIEMENS GSM/GPRS module, GR-500 performs its high quality, low power consumption, portable, compact size, rechargeable and removable battery functions to your personal, kindly and intimate kit.

Builds on SiRF Star III/LP chipset with embedded ARM7TDMI CPU available for customized applications in firmware and SIEMENS GSM module with embedded GSM 900/1800 MHz (option for 1900), GPRS class 10.

- 20 parallel satellite-tracking channels for fast acquisition and reacquisition.

- 200,000+ effective correlators for fast TTFF and extremely fast TTFF's at low signal levels.

- Built-in hardware Tracking Loop Processor WAAS/EGNOS Demodulator support.

- Built-in rechargeable lithium battery for Time- To- First-Fix(TTFF).

- Support NMEA 0183 v2.2 data protocol output.

- Enhanced algorithms provide superior navigation performance in urban, canyon and foliage environments.

- Three indicate LED and three function keys in appearance. SMS function setting to reply by time, reply in case of emergency, reply by moving out of range, reply by over speed, reply by external trigger, reply by battery out, reply by phone, reply when be called, and basic phone functions.

- Providing a web site application for GPS tracker on moving target.

Specifications

- **Tracks up to 20 satellites**
- **Receiver: L1, C/A code**
- **Max update rate: 1 HZ**
- **Acquisition time:**
 - Reacquisition 0.1sec. averaged
 - Hot start 8 sec. averaged
 - Warm start 38 sec. averaged
 - Cold start 42 sec. averaged
- **Position accuracy:**
 - ✧ Non DGPS(Differential GPS)
 - Position 5-25 m CEP without SA
 - Velocity 0.1 m/sec. without SA
 - Time 1 μ sec sync GPS Time
 - ✧ **EGNOS/WAAS(high sensitivity version doesn't support this function)**
 - Position :
 - < 2.2 m, horizontal 95% of time
 - < 5 m, vertical 95% of time
- **Dynamic conditions:**
 - Altitude 18,000 meters
(60,000 feet) max
 - Velocity 515 meters / sec.
(700 knots) max
 - Acceleration 4 G, max
 - Jerk 20 meters/sec., max
- **Antenna type:** Built in GPS & GSM Antenna
- **Minimum signal tracked:** -159dBm
- **GSM RF power @ ARP with 50 Ω load:** 33 dBm maximum.
- **GSM receiver input sensitivity @ ARP:** -105 dBm
- **Multi-band 900/1800 MHz (option for 1900MHz)**
- **Dimension: 88.5x45x22mm**
- **Weight : < 80g.**
- **Waterproof : IPX5**
- **LED function:**
Power On/Off · GSM and GPS.
- **KEY function:**
Power On/Off, Emergency key and Intimate call.
- **Operating temperature:**
-40 °C to + 80 °C
- **Storage temperature:**
-45 °C to + 100 °C
- **Operating humidity:**
5% to 95% No condensing.
- **Power consumption**
Full power < 350mA at 3.7Volts
Save power < 6mA at 3.7Volts
- **Protocol and interface:**
 - ✧ NMEA output protocol: V.2.2 (optional V3.0)
Standard:
 - Baud rate: 4800 bps
 - Data bit: 8
 - Parity: N
 - Stop bit: 1
 - Format: GGA,GSA,GSV, RMC.
 - Optional:
 - Baud rate: 4800, 9600, 19200, 38400, 57600, 115200 bps
 - Format: GLL,VTG, ZDA, SiRF binary
 - ✧ Interface: RS232



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