

LT500 Series



KEY FEATURES

- *Multiple models covering from centimeter to sub-meter accuracy*
- *1 GHz high-speed CPU, 512 MB RAM, 16 GB flash Memory*
- *4.3" large high-definition, sunlight readable screen*
- *3.5G cellular modem*
- *Gyro, laser plummet, E-compass, G-sensor*
- *1D/2D barcode scanner, RFID versions available*

LT500 Series GNSS Handheld Receiver *Professional Surveying & Mapping Solutions*

The LT500 series is a rugged, versatile handheld GNSS receiver, covering three accuracy ranges from meter, sub-meter, to centimeter and is the most cost-effective positioning solution for survey, construction and GIS professionals.

LT500H L1/L2 GPS+GLONASS, B1 BDS, G1 Galileo Tracking

The LT500H addresses a centimeter level position accuracy utilizing the internal cellular modem to access a local reference station network under RTK working mode.

LT500T L1 GPS+GLONASS+BDS+Galileo

The LT500T is designed to work in high accuracy projects requiring correctness to the decimeter, which is especially useful in utility applications, underground pipelines, and land records management.

LT500U L1 GPS+GLONASS

Embedded with professional GNSS engine, the LT500U prepares the user to capture stable one meter level accuracy data with SBAS differential correction signals or DGPS correction information from the local reference station.

Productive sensors

User productivity is greatly enhanced with the built-in gyroscope; an innovative laser plummet for positioning the accurate hand-held receiver over a point; an E-compass for showing the direction; and a G-sensor for leveling. Optional RFID and 1D/2D bar code scanners help automate complex inventory tasks.

Stay connected

Built-in standard 3.5G cellular modem and Wi-Fi keep you connected to RTK corrections networks and provide seamless internet access. Bluetooth is available for connection with other hardware such as laser range finder, underground pipeline locator.

Technical Specifications

| Comparison | | | |
|------------------------|---|---|----------------------|
| Type | LT500H | LT500T | LT500U |
| Channel | 120 | 220 | 72 |
| Satellite Signals | GPS: L1, L2; GLONASS: L1, L2; BeiDou: B1 | GPS: L1; GLONASS: L1; BeiDou: B1; Galileo: E1 | GPS: L1; GLONASS: L1 |
| Update Rate | 1 Hz, or higher | 1 Hz, or higher | 1 Hz, or higher |
| Correction | RTCM2.x/RTCM3.x RTCA/CMR/CMR+ | RTCM2.x/RTCM3.x/RTCM3.2 CMR/CMR+/sCMRx | RTCM2.x |
| Output | NMEA 0183 | NMEA 0183 | NMEA 0183 |
| Cold Start | < 50 s | < 45 s | 27 s |
| Hot Start | < 35 s | < 30 s | 1 s |
| Reacquisition | < 1 s | < 2 s | < 1 s |
| SBAS | 50 cm | 50 cm; with WAAS corrections 30 cm | 2m |
| RTK | 1 cm + 1 ppm (< 10 sec) | 2 cm (>5 min) | N/A |
| Post Processing Static | Horizontal: 5 mm ± 1 ppm Vertical: 10 mm ± 1 ppm | Horizontal: 5 mm ± 1 ppm Vertical: 10 mm ± 1 ppm | N/A |

System configuration

- Windows® Embedded Handheld 6.5 operation system
- Processor: 1 GHz
- Memory
 - 512 MB RAM and 16 GB internal flash memory
 - External Micro SD card slot, up to 32 GB
- 5.0 megapixel camera with autofocus

Display

- 4.3" sunlight readable screen
- Resolution: WVGA 480 X 800 pixel

Communications

- Cellular Modem
 - UMTS/HSPA+ 800/850/900/1900/2100 MHz
 - EDGE/GPRS/GSM 850/900/1800/1900 MHz
- Bluetooth: 2.1 + EDR
- WiFi: 802.11 b/g
- USB 2.0 Port

Physical

- Size (LxWxH): 236 x 97 x 77 mm (9.3 x 3.8 x 3.0 in)
- Weight: 897 g with battery (31.6 oz)
- Operating temperature: -30 °C to 70 °C (-22 °F to 158 °F)
- Storage temperature: -40 °C to 80 °C (-40 °F to 176 °F)
- Dust proof and waterproof: IP67
- Shock: survives a 1.2-meter drop on to concrete, MIL-STD-810G

Electrical

- Li-ion battery capacity: 11.1V, 3000 mAh
- Battery life: up to 13 hours (Autonomous GNSS usage)
- Charging time: 4 hours (typical)

Sensors

- Gyroscope
- Laser plummet
- E-compass
- G-sensor
- RFID(optional)
- 1D and 2D bar code scanner(optional)

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CHC - Shanghai Huace Navigation Technology Ltd.
599 Gaojing Road, Building C
201702 Shanghai, China

Tel : +86 21 542 60 273

Fax : +86 21 649 50 963

Email : sales@chcnv.com | www.chcnv.com