



ULTRA-RELIABLE GNSS

SinoGNSS T30 GNSS Receiver is an extremely compact designed receiver, tracking all currently GNSS and planned Global GNSS constellations, as well as L-Band capability. With the QUANTUM™ algorithm and second generation SinoGNSS ASIC chip inside, it largely improves positioning reliability and stability, especially in obstacle environment.

FLEXIBILITY FOR FIELD USE

Featuring full-constellation tracking capability, tilt compensation, 4G/WiFi/Bluetooth® connection, and easy survey workflow with Android-based Survey Master Software, the T30 GNSS receiver is one of the most reliable choices for your demanding surveying tasks. Collect more accurate data easier and faster no matter for beginners or professional surveyors. Its built-in tilt sensor supports maximum 30° pole tilt, and you can check electronic bubble on the controller for fast survey in the field. The rugged Al-mg alloy housing with IP67 Dustproof & Waterproof design makes the T30 perfectly and effectively work even in harsh environments.

SMART BATTERY DESIGN

With two 3400mAh hot swap batteries, the T30 helps to extend working hours and ensures you fluent workflow in the field. The battery LEDs flash when battery shortage, then you can replace batteries or directly charge in T30 through an external power.



Features

- ⚙️ **GPS L1/L2/L5, BeiDou B1/B2/B3, GLONASS L1/L2, Galileo E1/E5a/E5b, SBAS, QZSS, IRNSS¹**
- ⚙️ **BeiDou Global Signal B1C, B2a²**
- ⚙️ **WiFi/UHF/4G Module**
- ⚙️ **Tilt Compensation**
- ⚙️ **Two 3400 mAh hot swap Batteries**
- ⚙️ **Low Power Consumption**
- ⚙️ **Support PPP and L-Band³**
- ⚙️ **Support Long Baseline E-RTK⁴**

Signal Tracking

- 574 Channels
 - GPS: L1 C/A, L2C, L2P, L5
 - BeiDou: B1, B2, B3
 - BeiDou Global Signal: B1C, B2a²
 - GLONASS: L1 C/A, L1P, L2 C/A, L2P
 - Galileo: E1, E5a, E5b
 - QZSS, IRNSS¹
 - SBAS: WAAS, EGNOS, MSAS, GAGAN
 - L-Band³

Performance Specifications

- Cold start: <50 s
- Warm start: <30 s
- Hot start: <15 s
- Initialization time: <10 s
- Singal re-acquisition: <1.5 s
- Initialization reliability: >99.9%

Positioning Specifications

Mode	Accuracy
Static and Fast Static	2.5 mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
Long Observations Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
Real Time Kinematic	8 mm + 1 ppm Horizontal 15 mm + 1 ppm Vertical
E-RTK (<100 km) ⁴	0.2m + 1 ppm Horizontal 0.4m + 1 ppm Vertical
DGPS	<0.4 m RMS
SBAS	1 m 3D RMS
Standalone	1.5 m 3D RMS
PPP	10cm Horizontal and 20cm Vertical

Communications

- 1 Serial port (7 pin Lemo)
Baud rates up to 921,600 bps
- UHF modem⁵: Tx/Rx with full frequency range from 410-470 MHz⁶
 - Transmit power: 0.5-2 W adjustable
 - Range: 1-5 km⁷
- WIFI/4G modem
 - 4G Bands: 800/900/1800/2100/2600 MHz
 - 3G Bands: 900/2100 MHz
 - 2G Bands: 900/1800 MHz
 - Support GSM, Point to Point/Points and NTRIP
- Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz

- 5 LEDs (indicating Power, Satellite Tracking, GPRS Status and Differential Data)
- Bluetooth® : V 4.0 protocol, compatible with Windows OS and Android OS
- Tilt sensor

Data Format

- Correction data I/O:
 - RTCM 2.X, 3.X, CMR (GPS only), CMR+ (GPS only)
- Position data output:
 - ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GGK
 - ComNav Binary update to 20 Hz

Physical

- Size(W × H): Φ 15.8 cm × 7.3 cm
- Weight: 1.2 kg with two batteries

Environmental

- Operating temperature: -40 °C to + 65 °C (-40 °F to 149 °F)
- Storage temperature: -40 °C to + 85 °C (-40 °F to 185 °F)
- Humidity: 100% non-condensing
- Waterproof and dustproof: IP67, protected from temporary immersion to depth of 1 m
- Shock: Designed to survive a 2 m drop onto concrete

Electrical and Memory

- Input voltage: 5-27 VDC⁸
- Power consumption: 2.4 W⁸
- Li-ion battery capacity: 2 × 3400 mAh, up to 12 hours typically
- Memory: 8 GB

Software

- CGSurvey field data collection software
- Survey Master Android-based data collection software
- Carlson SurvCE field data collection software (optional)
- MicroSurvey FieldGenius field data collection software (optional)

1. QZSS and IRNSS are reserved for future upgrade.
2. BeiDou Global Signal is reserved for future upgrade.
3. L-Band is optional.
4. BeiDou B3 signal is used in RTK calculating engine to enlarge length of baseline, which is only available in Asia Pacific area.
5. UHF modem is default configuration and it can be removed according to your specific needs.
6. Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.
7. Working distance of internal UHF is varies in different environments, the maximum distance is 5 Km in ideal situation.
8. Power consumption will increase if transmitting corrections via internal UHF.

Specifications subject to change without notice.

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