

Technical Specifications

T30

SinoGNSS[®]
By ComNav Technology Ltd.

Signal Tracking

- 574 Channels
 - GPS: L1 C/A, L2C, L2P, L5
 - BeiDou: B1, B2, B3
 - BeiDou Global Signal: B1C, B2a
 - GLONASS: L1 C/A, L1P, L2 C/A, L2P
 - Galileo: E1, E5a, E5b, AltBOC
 - 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
- Signal 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 |
| 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 modem²: 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 SC104 Version 2.x, 3.x formats, 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 15.5 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 VDC
- Power consumption: 2.4 W⁸
- Li-ion battery capacity: 2 × 3400 mAh, up to 12 hours typically
- Memory: 8 GB

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. PPP service is optional.
3. UHF modem is default configuration and it can be removed according to your specific needs.
4. Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.
5. Working distance of internal UHF varies in different environments, the maximum distance is 5 Km in ideal situation.
6. Power consumption will increase if transmitting corrections via internal UHF.

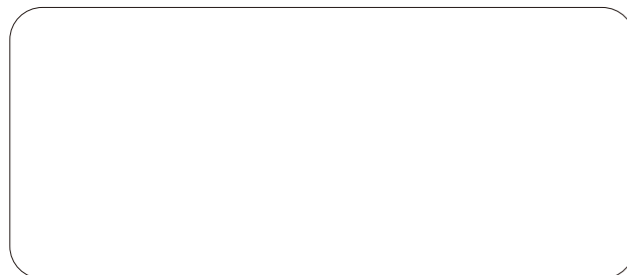
Specifications subject to change without notice.

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To make your work easier is our original motivation

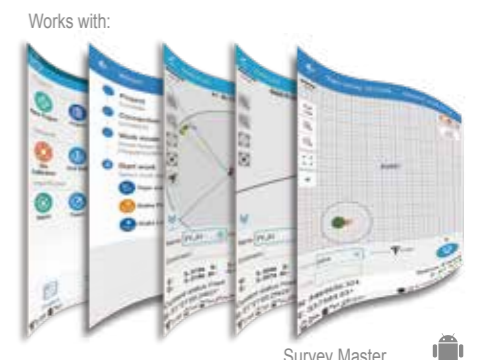
T30 GNSS SURVEYING SYSTEM



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Survey Master

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.



FULL-CONSTELLATION TRACKING

574 channels tracking all working and planned GNSS constellations.



ADJUSTABLE TX & RX INTERNAL UHF*

Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.



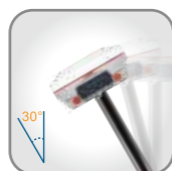
HOT SWAP BATTERY

Two 3400mAh hot swap batteries ensure you fluent workflow in the field.



SUPPORT L-BAND

Support L-Band and PPP, gives one more choice for diverse surveying tasks.



TILT COMPENSATION

Up to 30° tilt compensation allows you collect high accurate data faster in the field.



SEAMLESSLY WORK WITH NETWORKING RTK POSITIONING

Its built-in 4G modem ensures the T30 perfectly works with all kinds of CORS worldwide.



WIFI CONNECTION

WebUI offers simple configuration, operation, status of the T30.



USB MODE

When connecting the T30 to your PC, you just copy the logged static data from the receiver to your PC.

* UHF is removable according to specific regulation in different countries.

DATA COLLECTOR

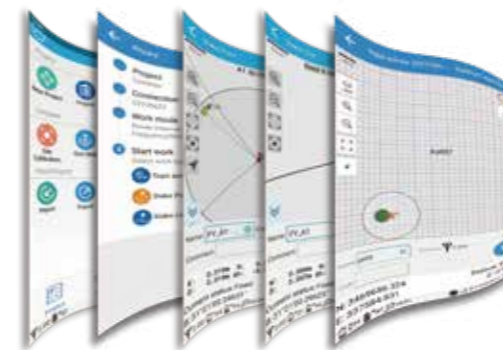


Android R550 ANDROID-BASED RUGGED DATA COLLECTOR

- Android 8.1 Operating System
- MIL-STD 810 G and IP67 Certified
- 5" Sunlight Readable Touch Display
- 13 MP Camera with Autofocus
- Compact Design with Long Battery Life
- Dual SIM and Dual Standby
- Integrated 4G, Bluetooth® and Wi-Fi



FIELD SOFTWARE



Android SURVEY MASTER

- Compatible with most of Android devices
- Easier survey workflow via Wizard function
- Support maximum 30° tilt compensation
- Supports all survey modes, including Static, PPK and RTK
- Access to real-time open street maps
- Collect users' feedback through Cloud Service



POST-PROCESSING SOFTWARE

SINOGNSS COMPASS SOLUTION SOFTWARE

- Provides the complete GPS/GLONASS/BeiDou/GALILEO processing solution
- Supports GNSS observation data in RINEX and ComNav Raw Binary Data formats
- Supports different post-processing in static and kinematic modes
- Outputs analysis reports in various formats (web format, DXF, TXT, KML)

