Technical Specifications

T30 IMU

Signal Tracking

- 1198 channels for simultaneously tracking satellite signals
  - GPS: L1C/A, L2C, L2P, L5
  - BeiDou:B1I, B2I, B3I, B1C, B2a, B2b
  - GLONASS:L1, L2
  - Galileo: E1, E5a, E5b, E6, AltBOC
  - QZSS:L1C/A, L1C, L2C, L5
  - Navic: L5
  - SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM, BDSBAS
  - L-Band[1]

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 modem[2]: Tx/Rx with full frequency range from 410-470 MHz[3]
  - Transmit power: 0.5-2 W adjustable
  - Range: 1-5 km[4]
- 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
- Built-in IMU supports up to 60° tilt compensation

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: 7-28 VDC
- Power consumption: 1.92 W[5]
- Li-ion battery capacity: 2 × 3400 mAh, up to 16 hours typically
- Memory: 8 GB[6]

Software

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

1. PPP service is optional.
2. UHF modem is default configuration and it can be removed according to your specific needs.
3. Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.
4. Working distance of internal UHF varies in different environments, the maximum distance is 5 Km in ideal situation.
5. Power consumption will increase if transmitting corrections via internal UHF.
6. 8GB is the default internal memory and optional 16GB, 32GB is available to order. Please clarify when placing the order.

Specifications subject to change without notice.

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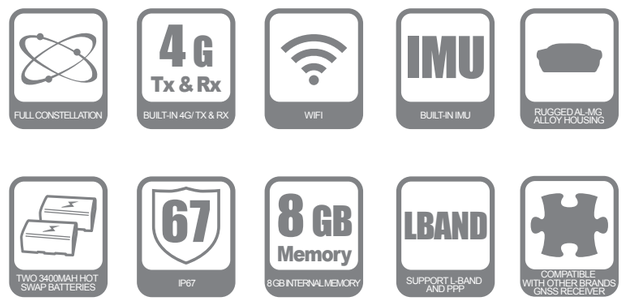
SinoGNSS®
By ComNav Technology Ltd.

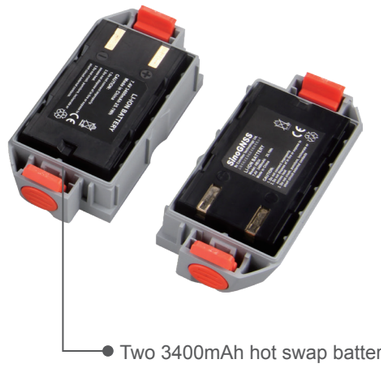
T30 IMU GNSS

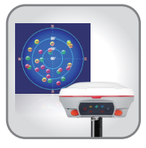
SURVEYING SYSTEM



SinoGNSS T30 IMU GNSS Receiver is an extremely compact designed receiver, tracking all current and future GNSS constellations, as well as L-Band capability. Featuring built-in IMU for high convenience and efficiency, abundant 4G/WIFI/Bluetooth® communications for flexibility, advanced QUANTUM™ technology for positioning reliability and stability, the T30 IMU receiver is the best-in-class solution for any of your survey tasks.

- High-sensitive Full-constellation Tacking Antenna
- Anti-electromagnetic Interference Shield
- Advanced All-in-one GNSS OEM Board
- Up to 60° Tilt Compensation Built-in IMU





FULL-CONSTELLATION TRACKING

1198 channels tracking all working and planned GNSS constellations.

BUILT-IN IMU

Built-in IMU provides a more efficient, convenient and reliable surveying solution for your field work.

ADJUSTABLE TX & RX INTERNAL UHF*

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

SEAMLESSLY WORK WITH NETWORKING RTK POSITIONING

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

HOT SWAP BATTERY

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

WIFI CONNECTION

WebUI offers simple configuration, operation, status check of the T30 IMU receiver.

SUPPORT LBAND

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

USB MODE

When connecting the T30 IMU receiver 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

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

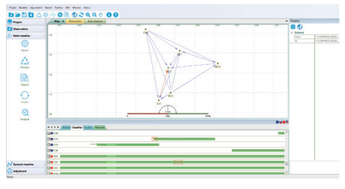
FIELD SOFTWARE

SURVEY MASTER

- Compatible with most of Android devices
- Easier survey workflow via Wizard function
- Support up to 60° IMU tilt compensation
- Support all survey modes, including Static, PPK and RTK
- Support Surface Stake, Mapping Survey and etc. to serve various survey tasks
- Support CAD import and directly use for stake out operations
- Support Convert function from ComNavBinary raw file to RINEX

Google play Survey Master Download for free

▸ Carlson SurvCE Optional ▸ Microsurvey FieldGenius Optional



POST-PROCESSING SOFTWARE

SINOGNSS COMPASS SOLUTION SOFTWARE

- Provide the complete GPS/GLONASS/BeiDou/GALILEO post-processing solution
- Support GNSS observation data in RINEX and ComNav Raw Binary Data formats
- Support different post-processing in static and kinematic modes
- Output analysis reports in various formats (web format, DXF, TXT, KML)
- Supports DJI's P4R data format. Processing results can be imported into photogrammetry and 3D modeling software directly