



**Size:** 15.5 cm × 7.3 cm

**Weight:** 1.2kg with two batteries

## Features

GPS L1/L2/L5, BeiDou B1/B2/B3, GLONASS L1/L2, Galileo E1/E5a/E5b/ AltBOC, SBAS, QZSS, IRNSS<sup>1</sup>

BeiDou Global Signal B1C, B2a

WiFi/UHF/4G Module

Built-in IMU supports tilt compensation up to 60°

Two 3400 mAh hot swap Batteries

Low Power Consumption

# T30 IMU GNSS Receiver

## ULTRA-RELIABLE GNSS

SinoGNSS T30 IMU GNSS Receiver is an extremely compact designed receiver, tracking all current and planned Global GNSS constellations, as well as SBAS capability. With the new generation QUANTUM III SoC chip inside, it largely improves positioning reliability and stability, especially in obstacle environments.

## CUTTING EDGE IMU TILT PERFORMANCE

Up to 60 ° tilting compensation, no need to center the Bubble, enables T30 IMU GNSS Receiver to measure quickly and acquire the precise position easily. With in-built IMU and adopted self-developed core algorithm, the T30 IMU GNSS Receiver is free of magnetic interference and calibration, and can bring accurate and reliable coordinates. One-time adjustment for successive tilting measurement with centimeter-level accuracy increases work efficiency.

## FLEXIBILITY FOR FIELD USE

Featuring full-constellation tracking capability, built-in IMU, 4G/WiFi/Bluetooth® connection, and easy survey workflow with Android-based Survey Master Software, the T30 IMU 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. The rugged Al-mg alloy housing with IP67 Dustproof & Waterproof design makes the T30 IMU receiver perfectly and effectively work even in harsh environments.

## SMART BATTERY DESIGN

With two 3400mAh hot swap batteries, the T30 IMU GNSS Receiver 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 IMU receiver through external power.

# T30 IMU GNSS Receiver

T Series GNSS Receiver

Ver.2021.08.25

## Signal Tracking

Channels	965
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	L1C, L2, L5, L1C/A
IRNSS <sup>1</sup>	
SBAS	WAAS, EGNOS, MSAS, GAGAN,SDCM
L-Band <sup>2</sup>	

## 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

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	1.5m 3D RMS

## Communications

1 Serial port (7 pin Lemo) Baud rates up to 921,600 bps

UHF modem<sup>3</sup>: Tx/Rx with full frequency range from 410-470 MHz<sup>4</sup>  
Transmit power: 0.5-2 W adjustable  
Range: 1-5 km<sup>5</sup>

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<sup>®</sup> : V 4.0 protocol, compatible with Windows OS and Android OS

Calibration-free IMU integrated for Tilt Survey

Up to 60°tilt with 2.5 cm accuracy

## Data Format

Correction data I/O	RTCM 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(L × W )	15.5 cm × 7.3 cm
Weight	1.2 kg with two batteries

## Environmental

Operating temperature	-40 °C to + 65 °C
Storage temperature	-40 °C to + 85 °C
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	2.3 W <sup>6</sup>
Li-ion battery capacity	2 ×3400 mAh, up to 15 hours typically
Memory	8 GB <sup>7</sup>

## Software

Survey Master Android-based data collection software

Carlson SurvCE field data collection software (optional)

MicroSurvey FieldGenius field data collection software (optional)

1. 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.
7. 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.