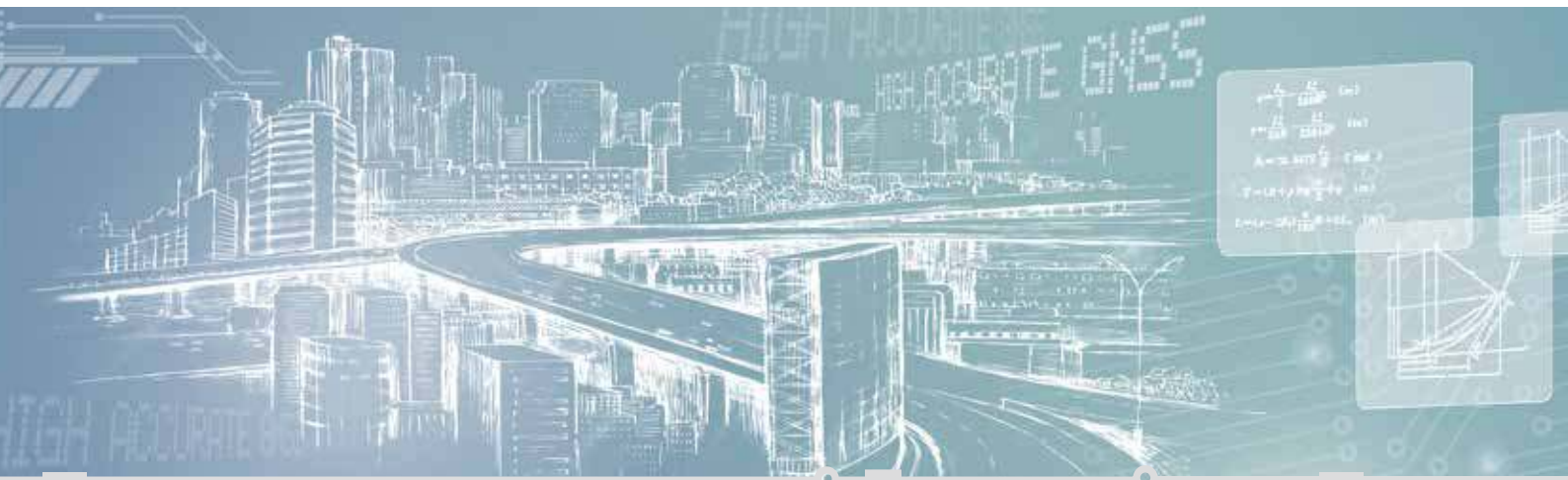


# T300 GNSS Receiver



## Features

- ⚙️ **GPS L1/L2/L5, BeiDou B1/B2/B3, GLONASS L1/L2, Galileo E1/E5a/E5b**
- ⚙️ **Compact Design**
- ⚙️ **Hot Swap Battery**
- ⚙️ **User-friendly Interface**
- ⚙️ **Support Long Baseline E-RTK<sup>1</sup>**

### RELIABLE IN THE FIELD

SinoGNSS T300 GNSS receiver is a compact RTK GNSS receiver tracking all working constellations, which performs well with each constellation independently. With SinoGNSS QUAN<sup>™</sup> technology and its strong anti-interference design, the T300 provides high-accuracy position availability and reliability no matter where you are.

### RUGGED AND EASE OF USE

The rugged housing with IP67 Dustproof & Waterproof design makes the T300 perfectly and effectively work even in harsh environments. Small volume with less than 1kg weight makes the T300 one of portable GNSS receivers meeting your RTK survey demands. Built-in 8GB internal memory enlarges your data storage in the field.

### INTEGRATED GNSS RECEIVER

The T300 GNSS receiver combines a GNSS board, Bluetooth<sup>®</sup> and adjustable TX & RX UHF into one compact device, which is one of the most reliable choices for any surveying tasks. Built-in GPRS/GSM/4G modem ensures the T300 seamlessly work with all kinds of CORS.

### SMART BATTERY DESIGN

With two hot swap batteries, the T300 helps to extend working hours and ensure your fluent workflow in the field. The battery LEDs flash when battery shortage. Moreover, you will benefit from its consumer-grade battery design, compatible with Canon LP-E6, which is easy to purchase and replace in your local market.

## Signal Tracking

- 572 channels with simultaneously tracked satellite signals
- GPS: L1, L2, L2C, L5
- BeiDou: B1, B2, B3
- BeiDou Global Signal: B1C, B2a<sup>2</sup>
- GLONASS: L1, L2
- Galileo: E1, E5a, E5b
- QZSS (Reserved)
- SBAS: WAAS, EGNOS, MSAS, GAGAN

## 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) <sup>1</sup>	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

## 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>
- 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

## 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 15.8 cm × 7.5 cm
- Weight: 0.95 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: 3.1 W<sup>6</sup>
- Li-ion battery capacity: 2 × 2000 mAh, up to 9 hours typically
- Memory: 8 GB<sup>7</sup>

## 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. BeiDou B3 signal is used in RTK calculating engine to enlarge length of baseline, which is only available in Asia Pacific area.
2. BeiDou Global Signal is reserved for future upgrade.
3. UHF Modem and 4G 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 is 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.

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