Technical Specifications T300

Signal Tracking

- 965 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
  - Navic: L5
  - SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM, BDSBAS

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

Communications

- 1 Serial port (7 pin Lemo)
  Baud rates up to 921,600 bps
- UHF modem[1]: Tx/Rx with full frequency range from 410-470 MHz[2]
  - Transmit power: 0.5-2 W adjustable
  - Range: 1-5 km[3]
- 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: 7-28 VDC
- Power consumption: 1.92 W[4]
- Li-ion battery capacity: 2 × 2000 mAh, up to 10 hours typically
- Memory: 8 GB[5]

Software

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

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1. UHF Modem and 4G Modem is default configuration and it can be removed according to your specific needs.

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

3. Working distance of internal UHF varies in different environments, the maximum distance is 5 Km in ideal situation.

4. Power consumption will increase if transmitting corrections via internal UHF.

5. 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.

SinoGNSS®
By ComNav Technology Ltd.

NEW ENGINE
CLASSIC DESIGN

T300-2022 GNSS
SURVEYING SYSTEM

With SinoGNSS Quantum™ algorithm and fully integrated design, the compact sized T300 GNSS receiver is one of the most reliable choices for any surveying tasks. Strong signal tracking ability, hot swap battery and rugged housing design make the T300 perfectly and effectively work even in harsh environments.

Multi-constellation Tracking

15.8 cm

7.5 cm

All in one GNSS OEM Board

Clear Front Panel

UHF Connector

Consumer-grade Battery Compatible with Cannon LP-E6

7-pin Lemo Port

Hot Swap Battery

SIM Card Slot
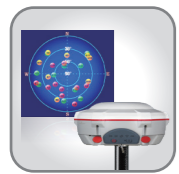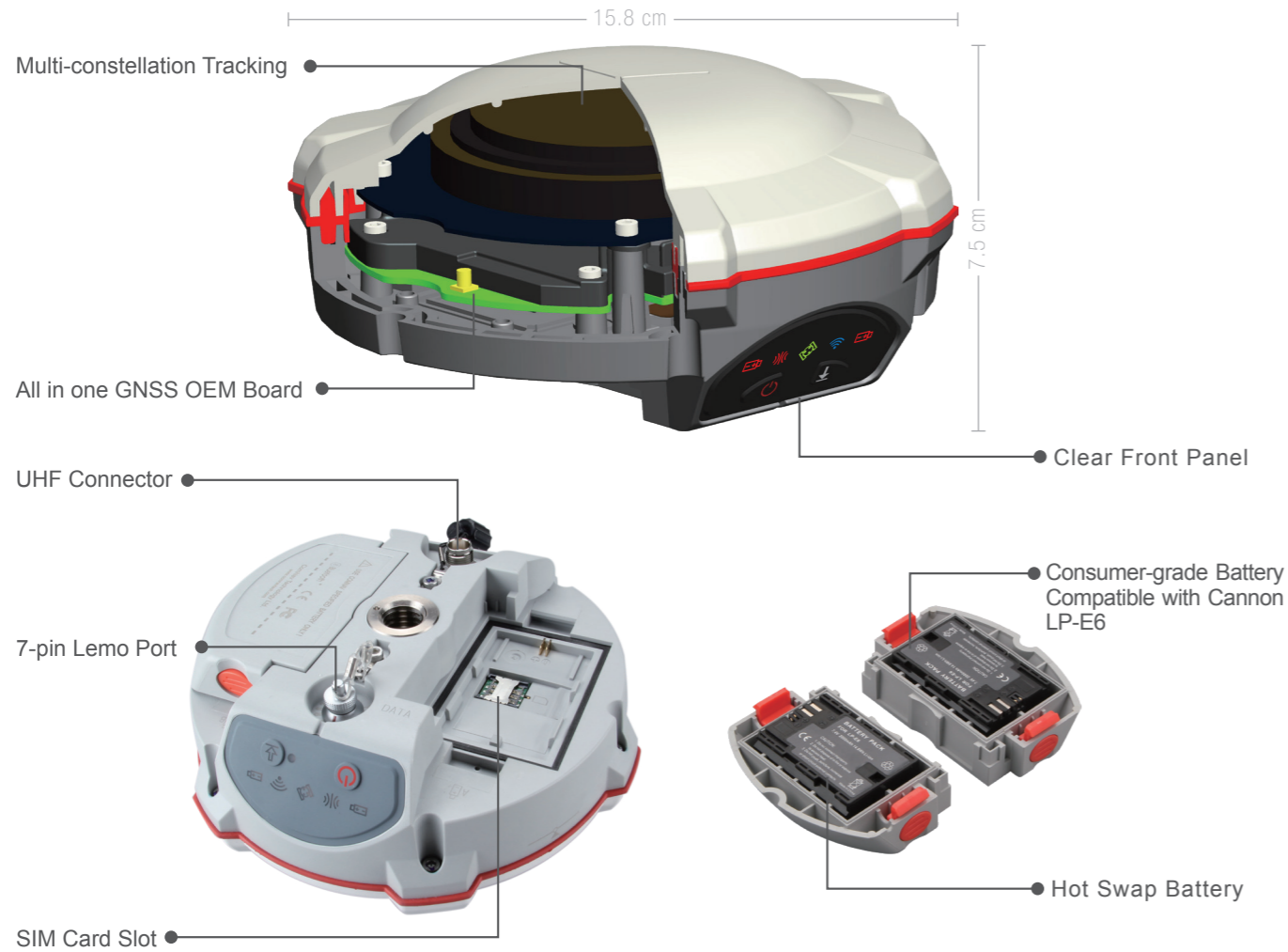
SINGLE & MULTI-CONSTELLATION COMPUTING
965 channels tracking all working constellations and each constellation can work independently

HOT SWAP AND CONSUMER-GRADE BATTERY
Two hot swap batteries ensure you fluent workflow in the field. Consumer-grade battery design, compatible with Cannon LP-E6, makes it easy to be replaced to replace in local markets

ADJUSTABLE TX & RX INTERNAL UHF*
0 – 2 Watt internal UHF allows you more convenient and effective field work

USB MODE
When connecting the T300 to your PC, you just copy the logged static data from the receiver to your PC.

SEAMLESSLY WORK WITH NETWORKING RTK POSITIONING
Built-in GPRS/GSM/4G module ensure the T300 perfectly works with in all kinds of CORS
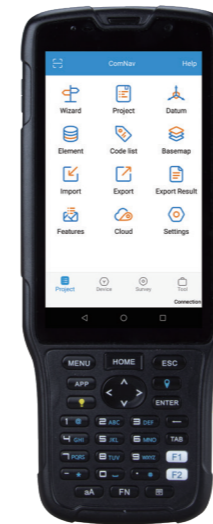
RUGGED LIGHTWEIGHT AND SMALL VOLUME DESIGN
IP67 Dust/Water proof design and surviving a 2m drop onto the concrete. Small volume with less than 1kg weight makes the T300 one of the most portable GNSS receivers meets your RTK surveying demands

* 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

Google play
Survey Master
Download for free

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

▶ Carlson SurvCE [Optional]   ▶ Microsurvey FieldGenius [Optional]

POST-PROCESSING SOFTWARE

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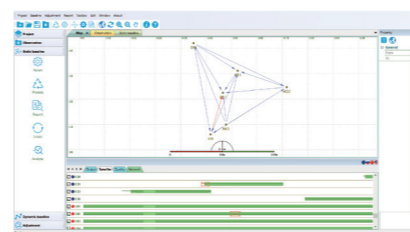
○ Provide the complete GPS/GLONASS/BeiDou/GALILEO post-processing solution
○ Support GNSS observation data in RINEX and ComNav Raw Binary Data formats
○ Support different post-processing in static and kinematic modes
○ Output analysis reports in various formats (web format, DXF, TXT, KML)
○ Supports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