# Software

## **Survey Master**

Compatible with most of Android devices

Easier survey workflow via Wizard function

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 direct use for stake out operations

Support Convert function from ComNavBinary raw file to RINEX

Support remote assistance, cloud storage, and seamless data sharing

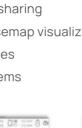
Support DXF, SHP, KML, GPX, and Google Maps for seamless basemap visualization

Support connection with ComNavTech devices and NMEA devices

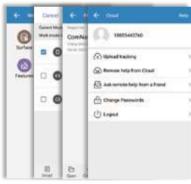
Support multiple languages and multi-country coordinate systems



Laser Visual Surver&Stakeout



Optional



Microsurvey FieldGenius Android

Microsurvey FieldGenius Wind

CAD Basemap and Stake

Cloud Service

#### **Post-processing Software**

# SinoGNSS Compass solution software

Provide the complete GPS/GLONASS/BeiDou/GALILEO post-processing solution

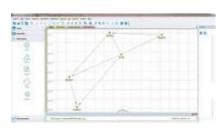
Support GNSS observation data in RINEX and ComNav Raw Binary Data format

Support different post-processing in static and kinematic modes

Output analysis reports in various formats (web format, DXF, TXT, KML)

Supports DJI's UAV data format. Processing results can be imported into photogrammetry and

3D modeling software directly







# **Jupiter GNSS Receiver**

GNSS Surveying System

Ver.2024.12.19

#### Signal Tracking

Channel: 1668 GPS: L1C/A, L1C, L2P, L2C, L5 BDS: B1I, B2I, B3I, B1C, B2a, B2b GLONASS: L1, L2, L3 Galileo: E1, E5a, E5b, E6c, E5 AltBOC QZSS: L1C/A, L2C, L5, L1C IRNSS: L5 SBAS: L1C/A PPP: B2b & HAS L-Band<sup>1</sup>

#### Performance Specification

Signal Re-acquisition: ≤1s Cold Start: ≤30s Hot Start: ≤10s RTK Initialization Time: <5s(Baseline≤10km) Initialization Reliability: ≥99.99% Data Update Rate: 1Hz, 2Hz, 5Hz, 10Hz, 20Hz

Mode	Accuracy
Static and Fast Static	Horizontal 2.5 mm + 0.5 ppm RMS Vertical 5 mm + 0.5 ppm RMS
Long Observations Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
Signal Baseline RTK	Horizontal 8mm + 1ppm RMS Vertical 15mm + 1ppm RMS
DGPS	< 0.4m RMS
SBAS	Horizontal 0.5 RMS Vertical 0.8 RMS
Standalone	1.5m 3D RMS
Laser Tilt Measurement	≤3.5cm (5m range, ≤60°Tilt in laser mode)

#### **Data Format**

Correction Data I/O: RTCM2.X, 3.X, CMR (GPSonly), CMR+(GPSonly) Position Data Output: - ASCII: NMEA-0183 GSV, RMC, HDT, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GGK -ComNav Binary update to 20 Hz

#### **Electrical and Battery**

Voltage: 7.2V Li-ion Battery Capacity: 5000mAh Power Consumption: 1.8W4 Working Time: 16h Interface: Type-C Memory: 4 GB5

#### Communication

1 Serial port: Baud rates up to 921,600 bps Tx/Rx with full frequency range from 410-470MHz - Transmit power: 0.5W, 1W, 2W adjustable

- Air Baud Rate: 9600/19200/11000 adjustable

- Protocol type: support Transparent/TT450S/South/Mac/SNLonglink, compatible with all the ComNavTech GNSS Receivers

WIFI: 802.11 a/b/g/n, 5GHz

Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz 2 LEDs (indicating Satellites Tracking and RTK Corrections data) Bluetooth ®: V 4.0 protocol, compatible with Windows OS and Android OS

Auto-IMU integrated for tilt survey, up to 120° tilt with 2.5 cm accuracy

#### **Environmental Specification**

Working Temperature: -40°C to +65°C (-72°F to 117°F) Storage Temperature:-40°C to +85°C (-72°F to 153°F) Humidity: 100% non-condensing Water- & Dustproof: IP68 Shock: Survive a 2m drop onto the concrete

#### Physical Specification

Housing Material: Aluminium magnesium alloy Dimension: Φ 13.35 cm x 6.6 cm Weight: 810g, with internal battery Display: 1.1 inch OLED color display

#### **Laser Specification**

Range: 50m Laser Safety: Class 3R Accuracy (room temperature): (3-5)mm + 1ppm Measuring Frequency: Classic Value: 3Hz Maximum Value: 5Hz Laser Injection Power: 0.9mW~1.5mW Working Temperature: -20 °C ~+50 °C Storage Temperature: -30 °C ~+60 °C

#### Camera Specification

Sensor pixels: 2 cameras with 2 MP global shutter Field of view: 75° Video frame rate: 30 fps Image group capture: - Method: video photogrammetry. Rate: typically 2 Hz, up to 25Hz

- Max. capture time: 60s with an image group size of appr. 60MB

1. PPP Service is optional.

- 2. UHF modem is default configuration and it can be removed according to your specific needs 3. Working distance of internal UHF varies in different environments and also depends on the protocols. With SNLonglink, 15km working range is achievable under ideal conditions.
- 4. Power consumption will increase when transmitting corrections via internal UHF 5. Memory is expandable.

#### ComNav Technology Ltd.

Building 2, No. 618 Chengliu N 201801 Shanghai, China

Fax: +86 21 54309582 Email: sales@comnavtech.com www.comnavtech.com



# **Sino GNSS**

# **Jupiter Laser RTK**

Universe Series GNSS Receiver

LASER RTK - INNOVATION MAKES A DIFFERENCE

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# | Features

#### Seamless Fusion of Laser & Dual-Camera for Next-Level Surveying & Stakeout

Jupiter, an IMU GNSS receiver with advanced laser sensor and dual-camera technologies, stands out as one of the most sophisticated and highly-configured GNSS receivers available on the market. Whether used for surveying or stakeout, it delivers an immersive user experience.

SATELLITE TRACKING			SATELLITE TRACKING		
	GPS	L1C/A, L1C, L2P, L2C, L5		QZSS	L1C/A, L2C, L5,L1C
*;	BDS	B1I, B2I, B3I, B1C, B2a, B2b	<u> </u>	IRNSS	L5
	GLONASS	L1, L2, L3	8	SBAS	L1C/A
	Galileo	E1, E5a, E5b, E6c, E5 AltBOC			

#### Laser Technology

Jupiter's precise green laser, visible even in daylight, enables accurate measurement of points where using range pole is not feasible. Additionally, the built-in camera overcomes the challenge of targeting points that are too distant to be seen with naked eyes, making field operations faster and more efficient.



### **Super Datalink** Jupiter's compatibility has been further

enhanced. The advanced datalink allows working with all types of GNSS receivers of ComNavTech and receivers of other mainstream brands, and supports a number of protocols, incl. Transparent /TT450S/South/Mac/SNLonglink. With SNLonglink, 15km working range is achievable under ideal conditions.

**Full-Constellation** 

B2B) function





# **OLED Color Screen**

Visual Stakeout

back and forth.

**Auto-IMU** 

With Jupiter's camera, surveyors gain a 3D

visual view on Survey Master software. By

simply following the directional arrow and

real-time distance, with the stakeout point

marked directly on the ground, even less

points in one go, without moving the pole

experienced operators can stake out

Jupiter is equipped with Auto-IMU,

initialization, supporting automatic

conventional, laser and visual modes.

eliminating the need for manual

calibration, and streamlining the operations in the field. It continues to

support 120° compensation in

The OLED color screen visually displays the number of satellites searched, fixed state, on/off state, power and other information, which is convenient for surveyors to control.



# | Jupiter Laser RTK

SinoGNSS

Jupiter Laser RTK is a high-end GNSS receiver that integrates cutting-edge GNSS, IMU, Laser and dual-camera technologies. Building on the advanced laser technology of the Universe Series, Jupiter also incorporates SinoGNSS's latest visual stake-out technology. This combination brings out immersive surveying and stakeout experiences, even in previously hard-to-reach, signal-blocked, or dangerous field.

Equipped with the latest K8 platform, Jupiter tracks 1668 channels for all running and existing constellations. The built-in IMU sensor supports up to 120° tilt compensation, in conventional, laser and visual mode.





# **R60 Data Collector**





Board



1080P Resolution



5.5" Display



Full QWERTY









LARGE CAPACITY