

## 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

### Optional



Microsurvey FieldGenius

Android

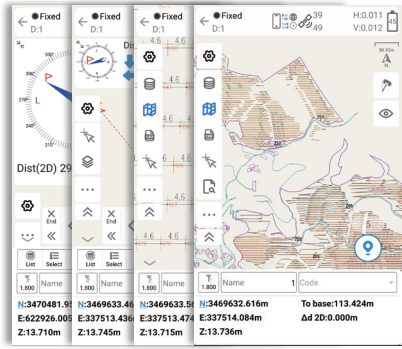


Microsurvey FieldGenius

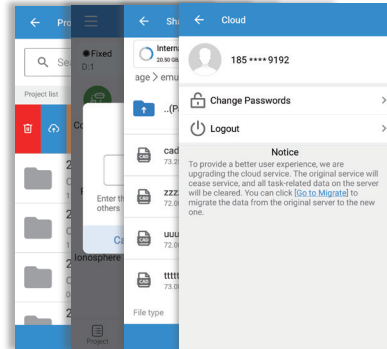
Windows



Laser Visual Surver&Stakeout



CAD Basemap and Stake



Cloud Service

## Post-processing Software

## SinoGNSS Compass solution software

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

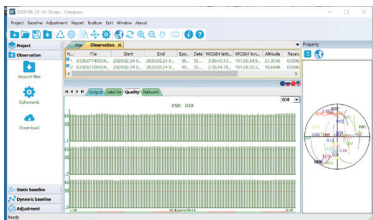
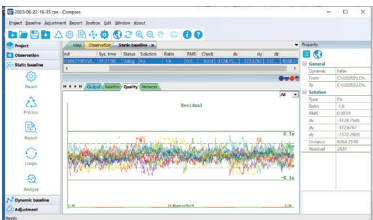
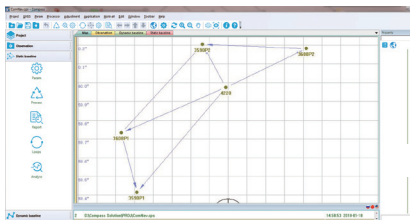
Support GNSS observation data in RINEX and ComNav Raw Binary Data format

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.2025.08.06

### 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<br>Vertical 5 mm + 0.5 ppm RMS |
| Long Observations Static | Horizontal 2.5mm + 0.1 ppm<br>Vertical 3 mm + 0.4 ppm          |
| Single Baseline RTK      | Horizontal 8mm + 1ppm RMS<br>Vertical 15mm + 1ppm RMS          |
| DGPS                     | < 0.4m RMS   |
| SBAS                     | Horizontal 0.5 RMS<br>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, GKG

-ComNav Binary update to 20 Hz

### Electrical and Battery

Voltage: 7.2V

Li-ion Battery Capacity: 5000mAh

Power Consumption: 1.8W<sup>4</sup>

Working Time: 16h

Interface: Type-C

Memory: 16 GB<sup>5</sup>

### Communication

1 Serial port: Baud rates up to 921,600 bps

Datalink<sup>2</sup>:

- Tx/Rx with full frequency range from 410-470MHz

- Transmit power: 0.5W, 1W, 2W adjustable

- Air Baud Rate: 9600/19200/11000 adjustable

- Range<sup>3</sup>: 3-15 km

- Protocol type: support Trimtalk/Lora/Farlink, compatible with all the ComNavTech GNSS Receivers

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

Position data output rates: 1Hz, 2Hz, 5 Hz, 10 Hz, 20 Hz

2 LEDs (indicating Satellites Tracking and RTK Corrections data)

Bluetooth<sup>®</sup> : 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: -45 C to +75 C ( -49°F to 167°F)

Storage Temperature: -55 C to +85 C ( -67°F to 185°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: Front camera: 5MP, Bottom camera: 2MP

Field of view: 75°

Video frame rate: 30 fps

Image group capture:

- 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.

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**SinoGNSS**



## Jupiter Laser RTK

Universe Series GNSS Receiver

LASER RTK - INNOVATION MAKES A DIFFERENCE



# | Features

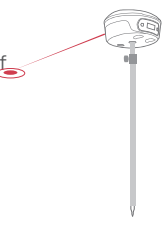
## Seamless Fusion of Laser & Dual-Camera for Next-Level Surveying & Stakeout

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 |  | IRNSS | L5                  |
|  | GLONASS | L1, L2, L3                   |  | 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.



### Visual Stakeout

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 experienced operators can stake out points in one go, without moving the pole back and forth.



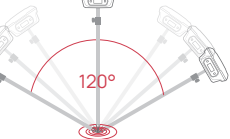
### Super Datalink

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.



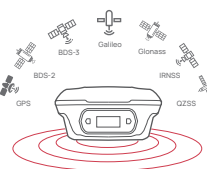
### Auto-IMU

Jupiter is equipped with Auto- IMU, eliminating the need for manual initialization, supporting automatic calibration, and streamlining the operations in the field. It continues to support 120° compensation in conventional, laser and visual modes.



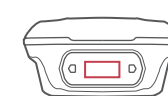
### Full-Constellation Multi-Frequency

With 1688 channels and 60+ satellites tracking capabilities, Jupiter can get fixed in seconds, boosting your productivity. It also support PPP (HAS & B2B) function.



### OLED Color Screen

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.



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# | Jupiter Laser RTK

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.



# | R80 Data Collector

