

# I Software

## Survey Master

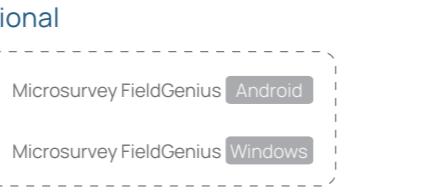
Compatible with most of Android devices  
Easier survey workflow via Wizard function  
Support all survey modes, including Static, PPK and RTK  
Support Surface Stake, Mapping Survey and etc. to serve various survey tasks  
Support CAD import and direct use for stake out operations  
Support Convert 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 Survey&Stakeout



CAD Basemap and Stake

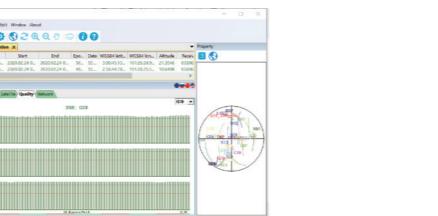
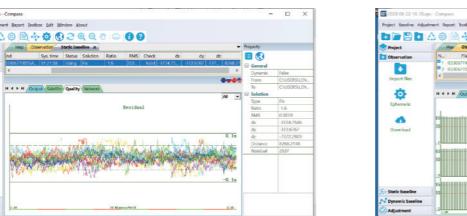
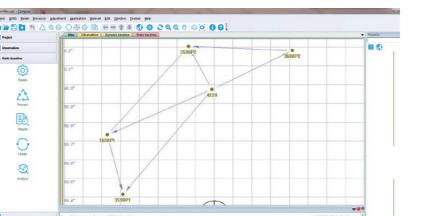


Cloud Service

## 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 Vertical 5 mm + 0.5 ppm RMS
Long Observations Static	Horizontal 2.5mm + 0.1 ppm Vertical 3 mm + 0.4 ppm
Single 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 CSV, RMC, HDT, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, GGK  
- ComNav Binary update to 20Hz

## 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: 16GB<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: 802.11a/b/g/n, 5GHz  
Position Data output rates: 1Hz, 2Hz, 5Hz, 10Hz, 20Hz  
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: Ø 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 SNNLink, 15km working range is achievable under ideal conditions.  
4. Power consumption will increase when transmitting corrections via internal UHF.  
5. Memory is expandable.

# SinoGNSS



# Jupiter Laser RTK

## Universe Series GNSS Receiver

LASER RTK - INNOVATION MAKES A DIFFERENCE

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## | Features

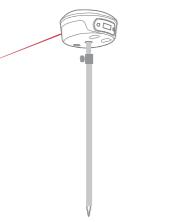
### Seamless Fusion of Laser & Dual-Camera for Next-Level Surveying & Stakeout

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		
	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

### 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 Multi-Frequency

With 1688 channels and 60+ satellites tracking capabilities, Jupiter can get fixed in seconds, boosting your productivity. It also supports 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.



## | 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 1688 channels for all running and existing constellations. The built-in IMU sensor supports up to 120° tilt compensation, in conventional, laser and visual mode.



LASER TECHNOLOGY    Dual-Camera Technology (Visual Stakeout)    K8 MODULE    FULL-CONSTELLATION MULTI-FREQUENCY    PPP    SUPER DATALINK    AUTO-IMU    OLED COLOR SCREEN

## | R80 Data Collector



Qualcomm

1080P Resolution

6" Display

Full QWERTY

Android 12

QC Quick Charging

IP67