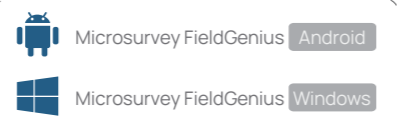


Software

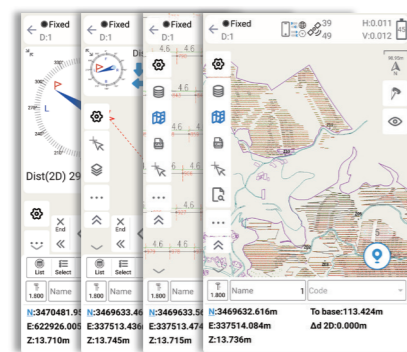
Survey Master

- 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 ComNav Binary 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

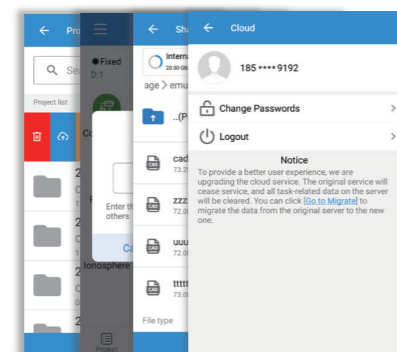
Optional



Laser Visual Survey & Stakeout



CAD Basemap & Stake

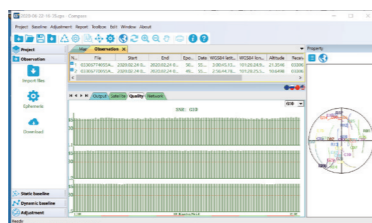
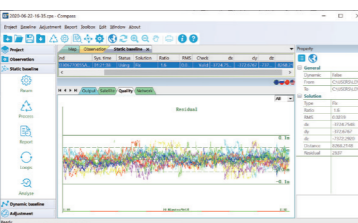
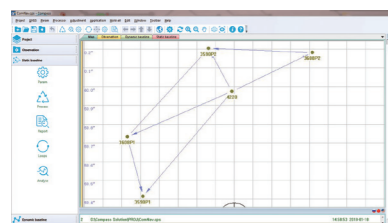


Cloud Service

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.2026.04.03

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-Band¹

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 3 mm + 0.1 ppm Vertical 3.5 mm + 0.4 ppm
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; GKG
 -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
 Datalink²:
 - Tx/Rx with full frequency range from 410-470MHz
 - Transmit power: 0.5W, 1W, 2W adjustable
 - Air Baud Rate: 9600/19200/11000 adjustable
 - Range³: 3-15 km
 - 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: 1Hz, 2Hz, 5Hz, 10Hz, 20Hz
 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: IP67
 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

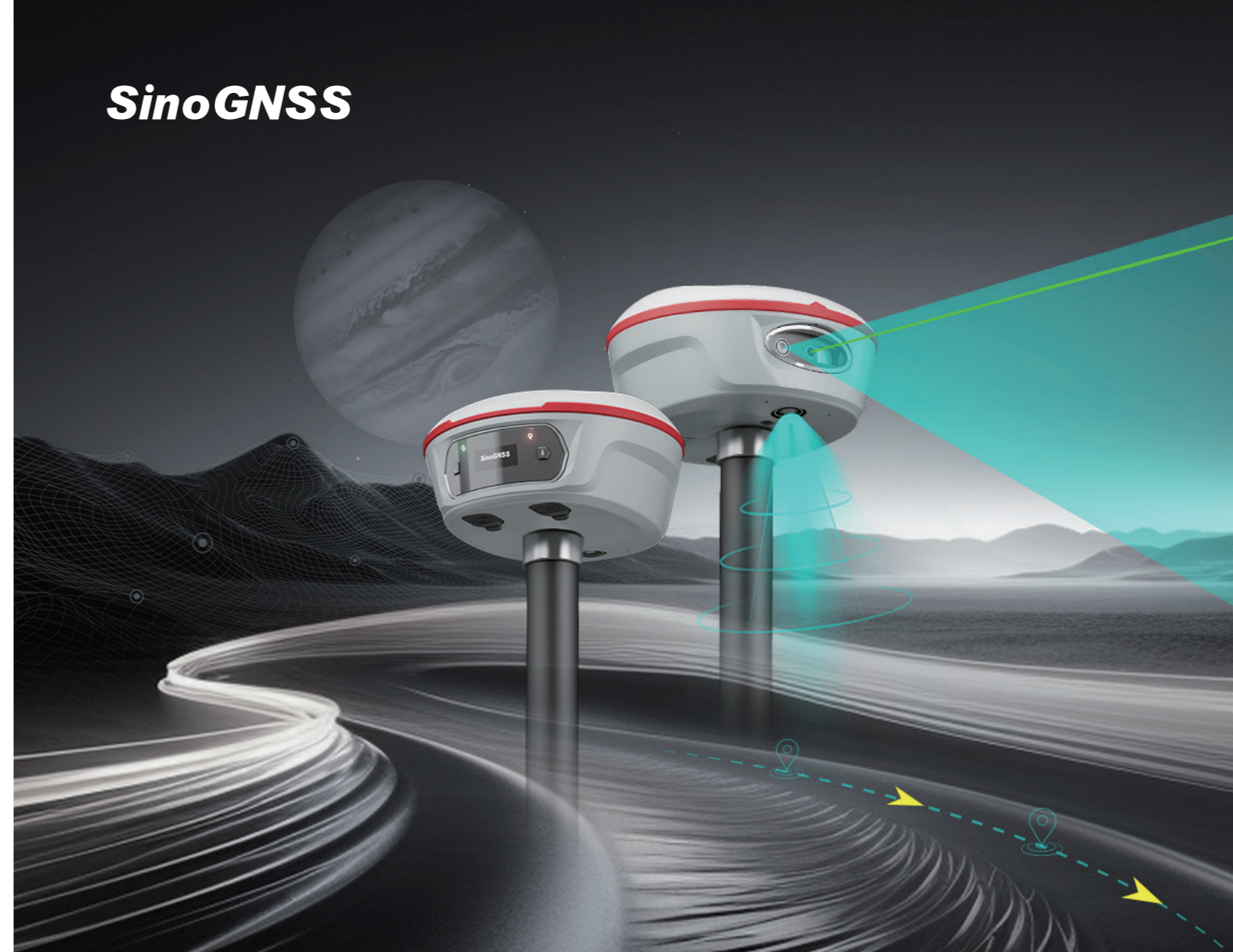
Laser Specification

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

- PPP Service is optional.
- UHF modem is default configuration and it can be removed according to your specific needs.
- 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.
- Power consumption will increase when transmitting corrections via internal UHF.
- Memory is expandable.



Jupiter Laser RTK

Universe Series GNSS Receiver

LASER RTK - INNOVATION MAKES A DIFFERENCE

ComNav Technology Ltd.

Building 2, No. 618 Chengliu Middle Road,
 201801 Shanghai, China

Tel : +86 21 64056796
 Fax: +86 21 54309582
 Email: sales@comnavtech.com
 www.comnavtech.com



Features

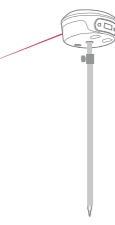
Seamless Fusion of Laser & Dual-Camera for Next-Level Surveying & Stakeout

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.



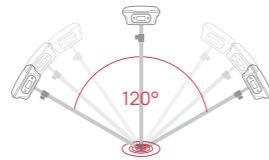
Super Datalink

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.



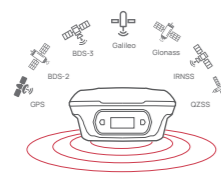
Auto-IMU

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.



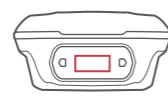
Full-Constellation Multi-Frequency

With 1668 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.



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

