Software

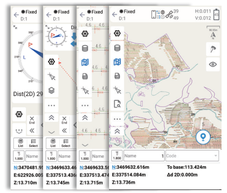
Survey Master

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

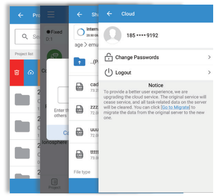
Optional

Microsurvey FieldGenius Android
Microsurvey FieldGenius Windows

Laser Visual Surver&Stakeout



CAD Basemap and Stake

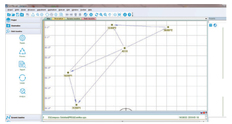


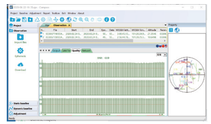
Cloud Service

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[1]

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
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 GSV, RMC, HDT, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, GGK
-ComNav Binary update to 20 Hz

Electrical and Battery

Voltage: 7.2V
Li-ion Battery Capacity: 5000mAh
Power Consumption: 1.8W[4]
Working Time: 16h
Interface: Type-C
Memory: 16 GB[5]

Communication

1 Serial port: Baud rates up to 921,600 bps
Datalink[2]:
- Tx/Rx with full frequency range from 410-470MHz
- Transmit power: 0.5W, 1W, 2W adjustable
- Air Baud Rate: 9600/19200/11000 adjustable
- Range[3]: 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: 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: -45℃ to +75℃ (-49°F to 167°F)
Storage Temperature:-55℃ to +85℃ (-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℃~+50℃
Storage Temperature: -30℃~+60℃

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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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	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

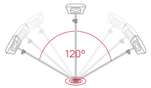
With Jupiter's camera, surveyors gain a 3D visual view on Survey Master software. By simply following the directional arrow and real-time distance, with the stakeout point marked directly on the ground, even less experienced operators can stake out points in one go, without moving the pole back and forth.

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.

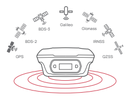
Auto-IMU

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.

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

Qualcomm | 1080P Resolution | 6" Display | Full QWERTY | Android 12 | QC Quick Charging | IP67