### Software

## Survey Master

Compatible with most of Android devices

Easier survey workflow via Wizard function

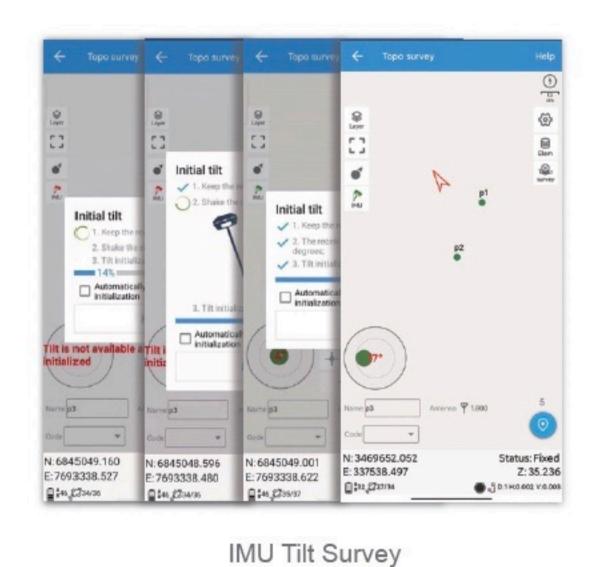
Support up to 60° IMU tilt compensation

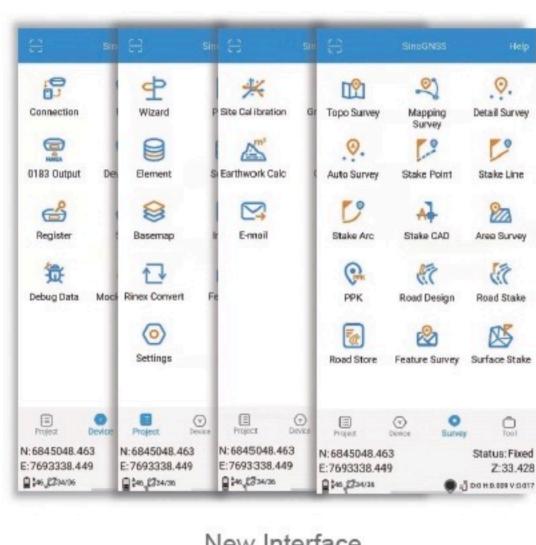
Support all survey modes, including Static, PPK and RTK

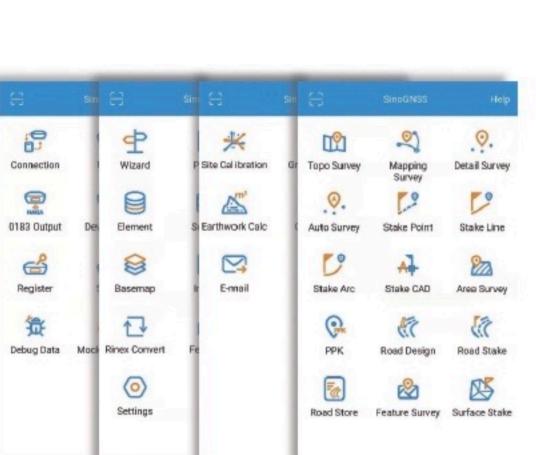
Support Surface Stake, Mapping Survey and etc. to serve various survey tasks

Support CAD import and directly use for stake out operations

Support Convert function from ComNavBinary raw file to RINEX







New Interface

# Google play

Survey Master Download for free

Carlson SurvCE Optional

Microsurvey FieldGenius Optional

Stake CAD Cor ← Stake CAD Cor ← Topo survey ← Stake Point

CAD Basemap and Stake

Warm start: <30 s Hot start: <15 s Initialization time: <10 s Singal re-acquisition: <1.5 s

### **Positioning Specifications**

Mode	Accuracy
Static and Fast Static	2.5 mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
Long Observations Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
Real Time Kinematic	8 mm + 1 ppm Horizontal 15 mm + 1 ppm Vertical
DGPS	<0.4 m RMS
SBAS	1 m 3D RMS
Standalone	1.5 m 3D RMS
PPP	10cm Horizontal and 20cm Vertical

### Post-processing Software

## SinoGNSS Compass solution software

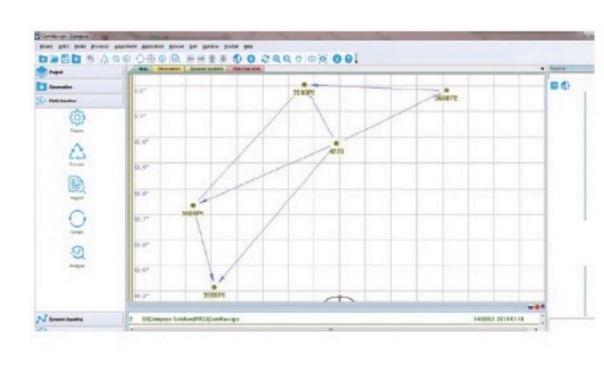
Provide the complete GPS/GLONASS/BeiDou/GALILEO post-processing solution

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

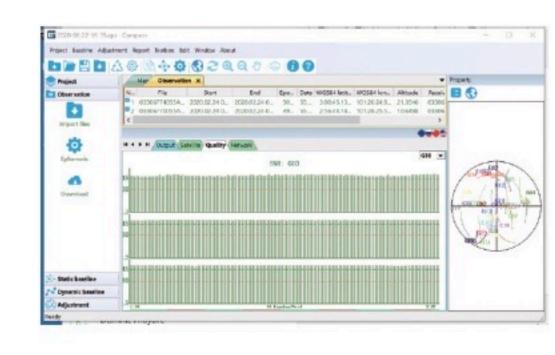
Support different post-processing in static and kinematic modes

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

Supports DJI's P4R data format. Processing results can be imported into photogrammetry and 3D modeling software directly







### N5 GNSS Receiver

#### Signal Tracking

1198 channels for simultaneously tracking satellite signals

GPS: L1C/A, L2C, L2P, L5 BeiDou: B1I, B2I, B3I, B1C, B2a, B2b

GLONASS: L1, L2 Galileo: E1, E5a, E5b, E6, AltBOC

QZSS: L1C/A, L1C, L2C, L5

SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM, BDSBAS

### Performance Specifications

Cold start: <50 s Initialization reliability: >99.9%

Mode	Accuracy
Static and Fast Static	2.5 mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
Long Observations Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
Real Time Kinematic	8 mm + 1 ppm Horizontal 15 mm + 1 ppm Vertical
DGPS	<0.4 m RMS
SBAS	1 m 3D RMS
Standalone	1.5 m 3D RMS
PPP	10cm Horizontal and 20cm Vertical

#### Communications

- 1 Serial port (7 pin Lemo)
- Baud rates up to 921,600 bps
- Enhanced UHF modem<sup>2</sup>: Tx/Rx with full frequency range from 410-470 MHz<sup>3</sup>
- Transmit power: 0.5-2 W adjustable
- Range: 15 km4
- WIFI/4G modem
- 4G Bands: 800/900/1800/2100/2600 MHz
- 3G Bands: 900/2100 MHz
- 2G Bands: 900/1800 MHz
- Support GSM, Point to Point/Points and NTRIP
- Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz
- 2 LEDs (indicating Satellites Tracking and RTK Corrections data)
- 1 OLED Display and 2 Function buttons
- Bluetooth®: V 4.0 protocol, compatible with Windows OS and Android OS
- Calibration-free IMU integrated for Tilt Survey
- Up to 60°tilt with 2.5 cm accuracy

### **Data Format**

Correction data I/O:

- RTCM 2.X, 3.X, CMR (GPS only), CMR+ (GPS only)

Position data output:

- ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GGK

GNSS Surveying System

Ver.2021.10.20

- ComNav Binary update to 20 Hz

#### **Physical**

Size(W × H): Φ 15.5 cm × 7.3 cm Weight: 1.2 kg with two batteries

#### Environmental -

Operating temperature: -40 °C to + 65 °C (-40 °F to 149 °F) Storage temperature: -40 °C to + 85 °C (-40 °F to 185 °F)

Humidity: 100% non-condensing Waterproof and dustproof: IP67, protected from temporary immersion

Shock: Designed to survive a 2 m drop onto concrete

### 

Input voltage: 7-28 VDC

Power consumption: 1.7 W<sup>5</sup> Li-ion battery capacity: 2 × 3400 mAh, up to 25 hours typically

#### Software

Memory: 8 GB<sup>6</sup>

to depth of 1 m

Survey Master Android-based data collection software Carlson SurvCE field data collection software (optional) MicroSurvey FieldGenius field data collection software (optional)

- 1. PPP service is optional.
- 2. UHF modem is default configuration and it can be removed according to your specific needs.
- 3. Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.
- 4. Working distance of internal UHF varies in different environments, the maximum distance is 15 Km in ideal situation.
- 5. Power consumption will increase if transmitting corrections via internal UHF. 6. 8GB is the default internal memory and optional 16GB, 32GB is available to

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order. Please clarify when placing the order.

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A reliable IMU RTK receiver you can really count on in the field!\*

### N5 IMU RTK

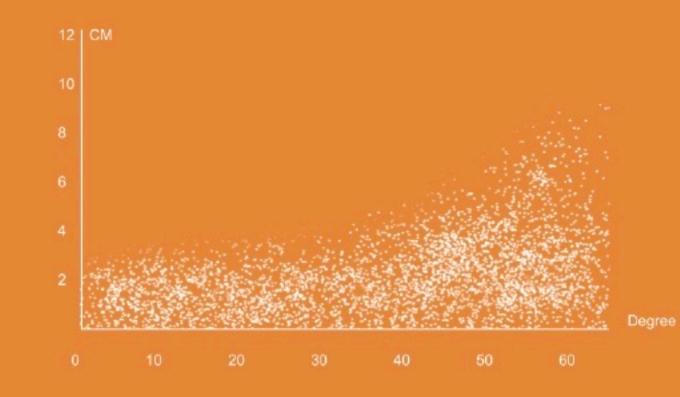
Up to 60° tilting compensation, no need to center the bubble, enables to measure quickly and acquire the precise position easily.

# More Flexible



With in-built IMU and adopted self-developed core algorithm, the N5 IMU GNSS Receiver is free of magnetic interference and calibration, and can brings the accurate and reliable surveying results.

## More Reliable



One-time adjustment for successive tilting measurement with centimeter-level accuracy increases work efficiency.

# More Efficient



### Features

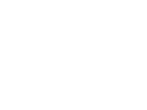
### Full constellations tracking

Powerful tracking capability with 1198 Channels Support all current and future GNSS constellations Improved fixed rate by integrated with new anti-interference algorithm technology



### OLED Enhanced OLED Display Sunlight readability for a clear, easy-to read Enhanced OLED Display

viewing experience Handle all of surveying operations on screen freely



### 6800mAh Large Li-battery

Last over 25hrs' work time. Support mobile charging, no worry about power-off



### Enhanced UHF\* for long range

Up to 15km work range with 2W power consumption Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing



### Rugged housing

IP 67 waterproof and dustproof Survive a 2m drop onto concrete



### Web-based UI

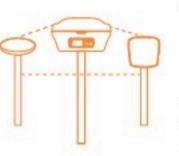
Available for users to check receiver status via the web UI.

Easily download the static data without connecting cable



### Industry-leading low power consumption

1.7w power consumption in static mode, which prolongs working time and reduces heat generation



### Seamlessly Work with GNSS **Network RTK Corrections**

Perfectly work with all kinds of CORS worldwide with in-built 4G modem

\* UHF is removable according to specifc regulation in different countries.

## **R550 Data Collector**













