

## Software

# Survey Master

Compatible with most of Android devices

Easier survey workflow via Wizard function

Support up to 60° IMU tilt compensation

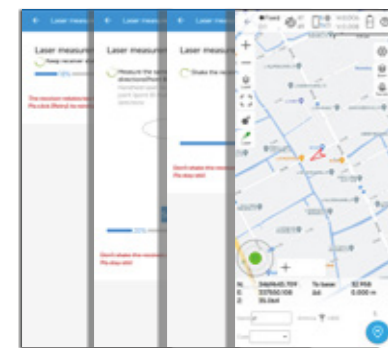
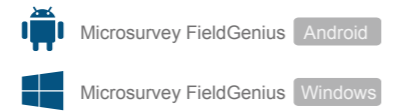
Support all survey modes, including Static, PPK and RTK

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

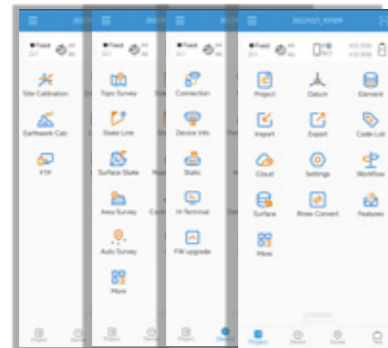
Support CAD import and directly use for stake out operations

Support Convert function from ComNavBinary raw file to RINEX

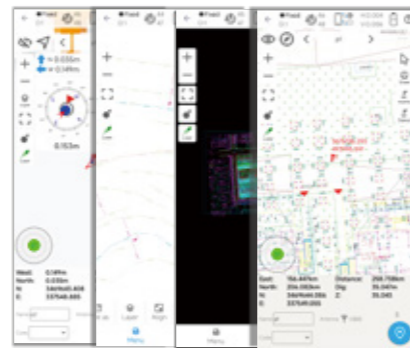
Optional



IMU Tilt Survey



New Interface



CAD Basemap and Stake

## Post-processing Software

# SinoGNSS Compass solution software

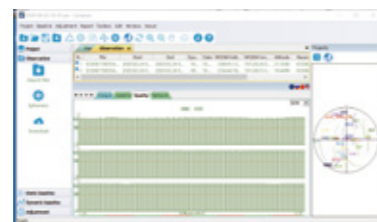
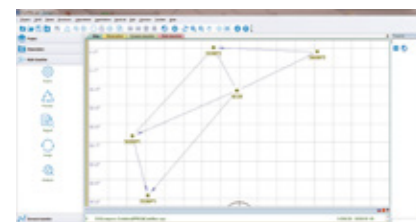
Provide the complete GPS/GLONASS/BeiDou/GALILEO post-processing solution

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

GNSS Surveying System

Ver.2023.3.8

## 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, L3

Galileo: E1, E5a, E5b, E6, E5 AltBOC

QZSS: L1C/A, L1C, L2C, L5

Navic: L5

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

L-Band<sup>1</sup>

## Performance Specifications

Cold start: <50 s

Warm start: <30 s

Hot start: <15 s

Initialization time: <10 s

Singal re-acquisition: <1.5 s

Initialization reliability: >99.9%

## 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

## 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 km<sup>4</sup>

WiFi/4G modem

- LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28

- LTE-TDD: B38/B39/B40/B41

- WCDMA: B1/B2/B4/B5/B6/B8/B19

- GSM: B2/B3/B5/B8

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<sup>®</sup>: 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, GKG

- 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

to depth of 1 m

Shock: Designed to survive a 2 m drop onto concrete

## Electrical and Memory

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

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

## Software

Survey Master Android-based data collection software

Carlson SurvCE field data collection software (optional)

MicroSurvey FieldGenius field data collection software (optional)

- PPP service is optional.
- UHF modem is default configuration and it can be removed according to your specific needs.
- Integrated UHF ranges from 410 to 470 MHz.
- Working distance of internal UHF varies in different environments, the maximum distance is 15 Km in ideal situation.
- Power consumption will increase if transmitting corrections via internal UHF.
- 8GB is the default internal memory and optional 16GB, 32GB is available to order. Please clarify when placing the order.

Specifications subject to change without notice.

**SinoGNSS**  
By ComNav Technology Ltd.



# N5 IMU RTK GNSS RECEIVER

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

\*From our filed testing statistics, with the IMU will increasing over 20% surveying productivity.

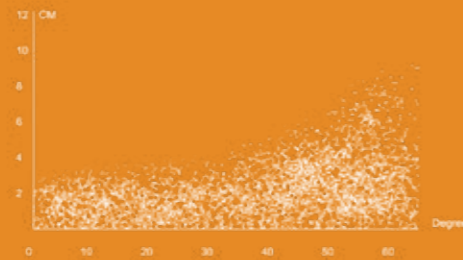
# N5 IMU RTK

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

## More Flexible

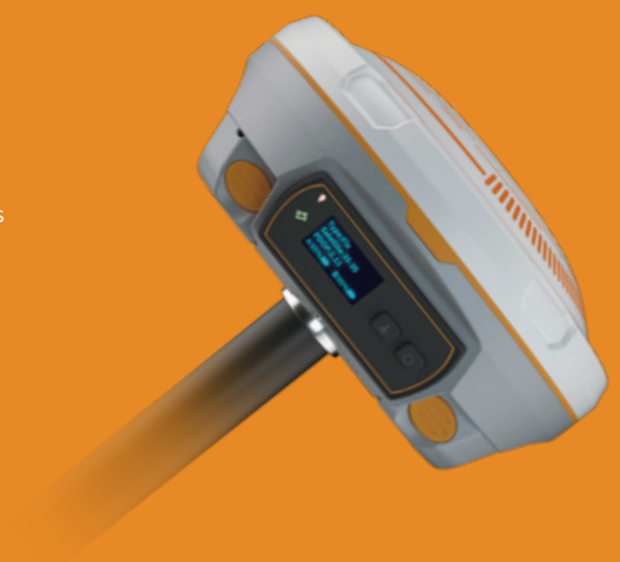
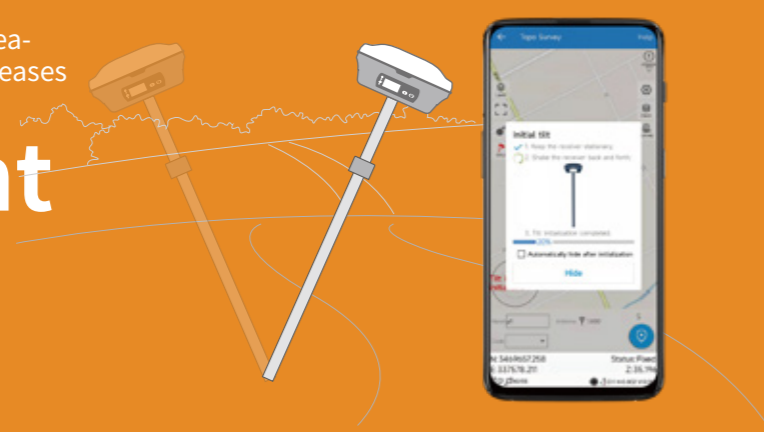
With in-built IMU and adopted self-developed core algorithm, the N5 IMU GNSS Receiver is free of magnetic interference and calibration, and can bring the accurate and reliable surveying results.

## 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

**6800mAh Large Li-battery**  
 Last over 25hrs' work time.  
 Support mobile charging, no worry about power-off

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

**Industry-leading low power consumption**  
 1.7w power consumption in static mode, which prolongs working time and reduces heat generation

**OLED Enhanced OLED Display**  
 Sunlight readability for a clear, easy-to-read viewing experience  
 Handle all of surveying operations on screen freely

**UHF 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

**Web-based UI**  
 Available for users to check receiver status via the web UI.  
 Easily download the static data without connecting cable

**Seamlessly Work with GNSS Network RTK Corrections**  
 Perfectly work with all kinds of CORS world-wide with in-built 4G modem

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

# R60 Data Collector

**5.5 inch** sunlight readable screen  
**1080P** HD display

Patent for design,  
**ergonomic operation**

With advanced **NFC**,  
 tedious matching is a thing of the past

**9000mAh** Li-Polymer Battery  
 for continuously working **30+** hours  
 QC3.0, 0.5h charging enables all-day use

Survive a 1.6m drop onto the concrete  
 Anti-static design, excellent heat dissipation

Physic **full QWERTY** keyboard  
 speeds up working efficiency

**5.0** Dual-mode Bluetooth, ultra long range Bluetooth connection

Qualcomm 8-core processor **Android 12** operation system with GMS certificate

**4+64** Memory  
 Open CAD drawing in seconds



-   
Qualcomm
-   
1080P Resolution
-   
5.5" Display
-   
Full QWERTY
-   
Android 12
-   
LARGE CAPACITY
-   
IP67