Software

Survey Master

Optional

MicroSurvey FieldGenius Android

MicroSurvey FieldGenius Windows

Compatible with most of Android devices

Easier survey workflow via Wizard function

Support up to 60° IMU tilt compensation

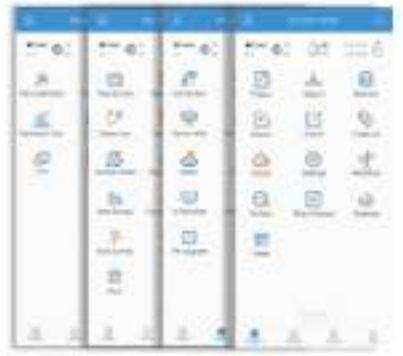
Support all survey modes, including Static, PPK and RTK

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

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

N3 GNSS Receiver

GNSS Surveying System

Ver.2023.09.03

Signal Tracking

Channels: 1198

GPS: L1 C/A, L2C, L2P, L5

BeiDou: B1I, B2I, B3I

BeiDou Global Signal: B1C, B2a, B2b

GLONASS: L1 C/A, L1P, L2 C/A, L2P

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

QZSS: L1C, L2, L5, L1C/A

IRNSS: L5

SBAS: WAAS, EGNOS, MSAS, GAGAN,SDCM

L-Band[1]

Performance Specifications

Cold start: <50 s

Warm start: <30 s

Hot start: <15 s

Initialization time: <10 s

Signal 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[2]: Tx/Rx with full frequency range from 410-470 MHz

- Transmit power: 0.5-2 W adjustable
- Range: 15 km[3]

WIFI: 802.11b/g/n

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

5 LEDs (indicating Satellites Tracking, RTK Corrections Data, GPRS Status and Power)

2 Function buttons for Power and Static Data Record

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
- ComNav Binary update to 20 Hz

Physical

Size(W x 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: 6-28 VDC

Power consumption: 1.7 W[4]

Li-ion battery capacity: 2 × 3400 mAh, 7.4V, up to 24 hours typically

Memory: 8 GB[5]

Software

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. Working distance of internal UHF varies in different environments, the maximum distance is 15 Km in ideal situation.
4. Power consumption will increase if transmitting corrections via internal UHF.
5. 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.

N3 IMU RTK GNSS RECEIVER

Reliable IMU and Enhanced UHF bring you a brand new high-efficiency experience! *

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

N3 IMU RTK

Up to 15km long work range with 2W power consumption, making it work-efficient and energy-saving for your survey tasks. Integrated UHF ranges from 410 to 470 MHz.

Higher Efficiency with Enhanced UHF Modem

Simplified IMU initialization process with shaking poles only. Up to 60° tilt compensation within 2cm accuracy, no need to center the bubble. Convenience and reliability are guaranteed at the same time.

More Convenient with Integrated IMU Module

Features

Full constellations tracking
Powerful tracking capability with 965 Channels
Support all current and future GNSS constellations
Improved fixed rate by integrated with new anti-interference algorithm technology

24 hours long-lasting batteries
Last for 24hrs' work time
Support hot swap and 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

Rugged housing
Magnesium-aluminum alloy housing
IP67 waterproof and dustproof level
Survive a 2m drop onto concrete

Reliable IMU for 60° tilt survey
Support up to 60° tilt compensation
Reach 2cm accuracy with tilt survey

Powerful web-based UI
Available for users to check status and configure receiver via the web UI
Easily download the static data & upgrade firmware via Wi-Fi

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
Support GNSS industry common protocols
Perfectly work with all kinds of CORS worldwide with in-built 4G modem

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

R60 Data Collector