

N20 Palm RTK



Easier 60°IMU Compensation

In-built IMU supports 60° tilt compensation. Get precise measurement results without the bubble check.

More Efficient 10 Seconds Initialization

Once calibrated, tilt measurements with centimeter-level accuracy last a long time, which improves the working efficiency.

Stronger Unafraid of magnetic interference

Self-developed core algorithm and built-in IMU ensure accuracy within 2.5cm. Magnetic fields are no longer issues, making surveying more convenient.

C50
Data Collector

Lighter, Thinner, FASTER

MILLIMETRIC ACCURACY

N20 Palm RTK

Signal Tracking

Channel: 1590

GPS: L1C/A, L1C, L2P, L2C, L5

BDS: B1I, B2I, B3I, B1C, B2a, B2b

GLONASS: G1, G2, G3

Galileo: E1, E5a, E5b, E6c, E5 AltBOC

QZSS: L1C/A, L2C, L5, L1C

IRNSS: L5

SBAS: L1C/A

Performance Specification

Signal Re-acquisition ≤ 1s

Cold Start: ≤ 45s

Hot start: ≤ 15s

RTK Initialization Time: < 10s

Initialization reliability: ≥ 99%

Internal Memory: 8GB

Mode	Accuracy
Single Baseline RTK	8mm+1ppm Horizontal 15mm+1ppm Vertical
Static and Fast Static	2.5 mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
Long Observation Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
DGPS	< 0.4 m RMS
SBAS	0.5m Horizontal 0.8m Vertical
Standalone	1.5m 3D RMS

Tilt Survey: up to 60 ° tilt with 2.5cm accuracy

Data Update Rate: 1Hz, 2Hz, 5Hz, 10Hz

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, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GKG
- CNB update to 20 Hz

Electrical Specification

Voltage: 5/9V

Power Consumption: RX mode ≤ 1.8W, TX mode ≤ 3.6W

Over Current Protection Voltage: 30V, VBUS 9.99V

Charging Time: < 5h (QC2.0)

Working time: ≥ 20h

Interface

Serial Port: Support serial communication

USB: Type-C

Range Pole interface: Standard 5/8" UNC female thread

UHF port: TNC

Communication

BT5.0 Dual-Mode BT

UHF: - Tx/Rx with full frequency range from 410-470MHz

- Transmit power: 0.5W, 1W, 2W adjustable

- Air Baud Rate: 9600/ 19200/ 11000 adjustable

- Range: 3-15 km

- Protocol type: support Transparent/TT450S/South/Mac/SNLonglink, compatible with all the North GNSS Receivers

Environmental

Working Temperature: -30 °C ~ +65 °C

Storage Temperature: -40 °C ~ +85 °C

Humidity: 100% non-condensing

Water- & Dustproof: IP67

Shock: Survive a 2m drop onto the concrete

Physical

Housing Material: Magnesium aluminum alloy

Dimension: 149±1mm(φ), 48±1mm(H)

Weight: 670g

Software

North Surveyor Android-based data collection software

MicroSurvey FieldGenius field data collection software (optional)

1.8GB is the default internal memory and optional 16GB, 32GB is available to order. Please clarify when placing the order.

2. Working distance of internal datalink varies in different environments, the maximum distance is 15km in ideal situation.

Specifications subject to change without notice.