

NeoRTK, the GNSS RTK System

NeoRTK is a new generation GNSS RTK system. With high-performance multi-constellation and multi-frequency GNSS board inside, NeoRTK can provide high accuracy and stability signal reception. The high-performance antenna in it can speed up the TTFF and improve the capability of anti-jamming. The built-in large capacity battery can support up to 10 hours field work. The radio module in the package makes long distance operation more convenient. The rugged housing protects the equipment from harsh environments.

Key Features:

- Supports multi constellations & frequencies
 - GPS: L1C/A, L1C, L2C, L2E, L5
 - GLONASS: L1C/A, L1P, L2C/A, L2P
 - BDS: B1/B2
 - GALILEO: GIOVE-A, GIOVE-B, E1, E5A, E5B
 - SBAS: L1C/A, L5
- Positioning rates: 1 Hz, 2 Hz and 5 Hz
- Supports 16G internal storage and up to 32G external SD card
- Supports tilt compensation and electronic bubble
- Rapid RTK integer ambiguity resolution
- Controller and software make host system start convenient
- Supports 3G, radio, and Wi-Fi, etc.
- Supports NFC: controller can establish Bluetooth connection with NeoRTK by quick touch.
- Supports voice notification.





Technical Specifications

Performance Specifications

- **Static GNSS surveying**
 - High-Precision Static
 - Horizontal..... 3 mm + 0.1 ppm RMS
 - Vertical 3.5 mm + 0.4 ppm RMS
 - Static and Fast Static
 - Horizontal..... 3 mm + 0.5 ppm RMS
 - Vertical 5 mm + 0.5 ppm RMS
- **RTK Positioning Accuracy**
 - Horizontal..... 8mm + 1ppm RMS
 - Vertical 15mm + 1ppm RMS
- **Post-processed Kinematic (PPK) surveying**
 - Horizontal..... 8 mm+1ppm RMS
 - Vertical 15 mm+1ppm RMS
- **Network RTK**
 - Horizontal..... 8 mm + 0.5 ppm RMS
 - Vertical..... 15 mm + 0.5 ppm RMS

- SBAS Positioning Accuracy..... 0.5m
- Initialization(typical)..... <10s
- Initialization Reliability..... >99.9%
- Tilt Measurement (within30°)..... ≤3cm
- RTK format.....CMR, CMR+, sCMRx, RTCM2.X/3.X
- Operation System..... Linux
 - Initialization..... 3s
- Data Storage..... 16G internal storage
 - Up to 32G external SD card

Communication

- 3G..... TD-SCDMA, WCDMA, EDGE, GPRS, GSM
- Wi-Fi..... 802.11b/g
- BlueTooth 2.0 x1
- USB..... USB 2.0 x1
- Serial port..... RS-232 x1
- Built-in Radio Station
 - Power..... 2W
 - Frequency..... 457MHz-467MHz
 - Distance (typical) 5km
- External Radio Station (Optional)
 - Power..... 5W/10W/20W/30W
 - Frequency..... 450MHz-470MHz
 - Distance (typical) 15km

Physical Characteristics

- Battery (Lithium)..... 5000mAh x2
 - Up to 10 hours working per single battery (in RTK rover mode)
- Input Voltage..... 6~28VDC
 - With over-discharge protection
- Power Consumption(typical)..... 4.2 W
- Size..... Φ153x83mm
- Weight..... 1.2kg including battery
- Material..... Magnesium alloy
- Dust & Water Proof IP67
- Pole drop onto concrete2m
- Operating Temperature..... -45°C ~ +75°C
- Storage Temperature..... -55°C ~ +85°C
- Relative Humidity..... 100% not condensed

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