

# N72

## GNSS Infrastructure

- 440<sup>(1)</sup> channels multi-constellation receiver
- Integrated 10000 mAh battery up to 15 h operating time
- 32 GB internal memory and 1 TB external storage supported
- Multi access by Bluetooth, WiFi, Ethernet, serial port and USB
- 8 threads of independent simultaneous data logging
- LCD display and button for easy setting



N72 GNSS sensor provides advanced multiindustry solutions to various demanding applications such as surveying, mining monitoring, geologic hazard monitoring, water conservancy monitoring, machine control, vehicle dispatching, etc.

With 32 GB internal memory, N72 supports continuous data logging for 15 years at 15 s interval. In addition, combined with the technology of circulating data storage and 8-thread storage, the up-to-date data can be recorded in various format. While for data output, local USB port, FTP push and web page download are all available for users.

N72 is easy to start by front LCD display panel and button. Integrated Linux system also provides web page for users access to set receiver locally or remotely. User-friendly and function-completely interface will improve users' efficiency all-around.

With its integrated 10000 mAh battery, N72 can survive continuous working for 15 h. Under the situation of power supply interruption, the internal battery can work as UPS, realizing the seamless working switch.



# ■ Technical Specifications

## GNSS characteristics

- 440<sup>(1)</sup> channels with all in view simultaneously tracked satellite signals
  - GPS: L1C/A, L2, L2C, L2E, L5
  - GLONASS: L1C/A, L1P, L2C/A (GLONASS M only), L2P
  - SBAS: WAAS, EGNOS, MSAS and QZSS
  - Galileo: E1, E5A, E5B
  - BDS: B1, B2
- Pseudo-range measurement with high-precision multi-correlator
- Very low noise carrier phase measurement with < 1 mm precision in 1 Hz bandwidth

## GNSS Accuracies <sup>(2)</sup>

- Real Time Kinematics (RTK):
  - Horizontal: 8 mm + 1 ppm RMS
  - Vertical: 15 mm + 1 ppm RMS
  - Initialization Time: Typically < 8 s
  - Initialization Reliability: Typically > 99.9%
- Post-processing Static:
  - Horizontal: 2.5 mm + 0.5 ppm RMS
  - Vertical: 5 mm + 0.5 ppm RMS
- Post-processing Static (long observation):
  - Horizontal: 3 mm + 0.1 ppm RMS
  - Vertical: 3.5 mm + 0.4 ppm RMS

## Communications

- Serial: 2 x 10-pin LEMO port (external power, USB data download, USB update, RS-232)
- 1 x LAN port
  - Supports links to 10BaseT/100BaseT auto-negotiate networks
  - HTTP, TCP/IP, UDP, FTP, NTRIP Caster, NTRIP Server, NTRIP Client
  - Simultaneously transmits multiple data stream
  - Support proxy server and route table
- 1 x DB9 port
- 1 x GNSS antenna port
- Protocols:
  - Correction formats: CMR, CMR+, SCMRX, RTCM2.3, RTCM3.0, RTCM3.2, RTD
  - Observables: RT17, RT27, RTCM3.x, RINEX2.11, RINEX3.02
  - Position/Status I/O: NMEA 0183 V2.30 and V4.0 output
- Internal data logging and position output frequency up to 50 Hz, storage capacity 32 GB

- External storage up to 1 TB
- Bluetooth®: Internally integrated multimode system compatible with Android, Windows Mobile and Windows desktop operating systems
- WiFi: 802.11 b/g/n, access point mode

## Physical

- Size (L x W x H): 265 mm x 143 mm x 68 mm  
(10.4 in x 5.6 in x 2.7 in)
- Weight: 2.1 kg (74.1 oz)
- Environment:
  - Operating: -40°C to +65°C (-40°F to +149°F)
  - Storage: -45°C to +80°C (-49°F to +176°F)
- Humidity: 100% condensation
- Dust and Water Proof: IP68
- Shock and Vibration: 1 m (3.3 ft) fall onto concrete

## Electrical

- Power Consumption: 3.5 W (depending on user settings)
- External Power: 9V DC to 36 V DC
- Internal Battery Capacity: 10,000 mAh, 7.4 V
- Operating Time<sup>(3)</sup>: 15 h (depending on user settings)

## User Interface

- Front panel display
  - 1 X LED power indicator
  - 7 X Key-press
  - 1 X LCD display
- Web User Interface

## Certification

- FCC; CE; MIL-STD-810G, Method 514.7

## Antenna Option

- Recommended antenna products
  - CHC A220GR GNSS Geodetic Antenna
  - CHC C220GR2 GNSS Choke Ring Antenna

(1) 220 and 440 channels optional. (2) Accuracy and reliability specifications may be affected by multipath, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (3) Operating time varies based on temperature.

Specifications are subject to change without notice due to technology improvement.

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