

# N72 GNSS



## KEY FEATURES

- *436 channels core GNSS module, including GPS, GLONASS, Galileo, Beidou and SBAS tracking*
- *High-capacity integrated battery, up to 15 hours power supply as UPS*
- *16 GB mass memory for 3 years of 15s static data; up to 1 TB external memory*
- *8 threads of independent simultaneous data logging to meet different data purposes.*
- *Circulating storage to keep the data up-to-date*
- *FTP push and remote download to keep data always available*
- *Buttons for quick configuration and LCD for direct display*
- *Wi-Fi as well as Bluetooth, LAN, serial ports and USB for easy accesses*

The CHC N72 GNSS sensor provides advanced multi-industry solutions to various demanding applications such as surveying, CORS, mining monitoring, geologic hazard monitoring, water conservancy monitoring, machine control, vehicle dispatching, etc.

Easy-to-use, compact and rugged, designed for advanced monitoring performances, the N72 GNSS sensor makes field work more comfort for the surveyors.

### Excellent Data Management Capability

With 16 GB mass memory, N72 supports continuous data logging for 3 years at 15s interval. In addition, N72 supports external portable hard drive and USB flash disk which enable up to 1 TB storage extension.. Meanwhile, various formats of data can be stored simultaneously. Combined with the technology of circulating data storage and 8-thread storage, the up-to-date data can be recorded. While for data output, local USB port, FTP push and web page download are all available for users. Also, data could be directly stored into the external portable hard drive and USB flash disk.

### Flexible Configuration Methods

N72 adopts liquid crystal display for front panel. Users can configure the system parameters through Network, serial ports and front panel randomly.

### Powerful Web Page

Based on the embedded web page, users can remotely access the receiver by IE/Chrome to realize multiple operations, such as checking the running status, setting the outputs of data, downloading the observation data, FTP pushing, Email alerting, remote restarting, modifying system configuration, firmware updating and registering.

### Diverse Power Supply Modes

Integrated with built-in 7800 mAh battery, N72 supports continuous working for 15 hours. The internal battery can be charged automatically when external power supply is plugged in, and after it is fully charged, N72 will cut off the power charging automatically to maintain the service life of the battery. In case of power supply interruption, the internal battery can work as UPS, realizing the seamless switch between internal and external power supply. Also, N72 supports the power supply from the complement of wind, light and electricity.

# Technical Specifications

## GNSS characteristics

- 436 channels with simultaneously tracked satellite signals
  - GPS: L1C/A, L2, L2C, L2E, L5
  - GLONASS: L1C/A, L1P, L2C/A (GLONASS M only), L2P
  - SBAS: WAAS, EGNOS and MSAS
  - 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

## Performance specifications<sup>(1)</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

- 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
- 3 x RS232 ports: 1 x DB9 port, 2 x LEMO (10-pin) port
- 1 x GNSS antenna port
- 1 x USB port
- Protocols:
  - Correction formats: CMR, CMR+, SCMRx, RTCM2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2, RTD
  - Observables: RT17, RT27, BINEX, RTCM 3.x, RINEX2.x, RINEX3.x

- Position/Status I/O: NMEA-0183 V2.30

- Internal data logging and position output frequency up to 50 Hz, storage capacity 16 GB.
- External storage up to 1 TB

## Physical

- Size (LxWxH): 265 x 143 x 68 mm (10.4 x 5.6 x 2.7 in)
- Weight: 2.1 kg (74 oz)
- Operating temperature: -40 °C to +65 °C (-40 °F to 149 °F)
- Storage temperature: -45 °C to +80°C (-49 °F to 176°F)
- Humidity: 100% condensation
- Waterproof and dust proof: IP68, protected from immersion to depth of 1 meter for 30 minutes
- Shock: survives a 1-meter drop on to concrete
- Vibration: MIL-STD-810G standard

## Electrical

- Power consumption: 3.5 W nominal, dependent on user settings
- External power input: 9-36 VDC
- Internal battery capacity: 7800 mAh, 7.4 V
- Battery life: 15 hours (dependent 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 & IGS

## Antenna option

- Recommended antenna products
  - CHC A220GR GNSS Geodetic Antenna
  - CHC C220GR GNSS Choke Ring Antenna

(1) 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.

Specifications are subject to change without notice.

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