

# X900+ GNSS

## KEY FEATURES

- *Future proof 120-channel core GNSS with the ability to track GPS, GLONASS, Galileo and BeiDou*
- *High performance GNSS RTK positioning covering wide range of applications*
- *Landstar or Carlson's SurvCE Field data collection software scale to your survey need*
- *Integrated Bluetooth, GPRS and radio modem*
- *Innovative and rugged design built for harsh environment*

The X900+ GNSS receiver from CHC leverages the latest GNSS technology by integrating 120 channels with the ability to track GPS, GLONASS, Galileo and BeiDou and field software dedicated to topographic and construction surveying. The X900 series is one of the most cost-effective GNSS receiver selected by large number of surveyors for its outstanding performances and reliability.

### Outstanding RTK Performances

The X900+ offers greater performances with proven and innovative GNSS functionality. The future proof multi-constellation tracking feature increases availability in obstructed sky conditions such as construction sites in urban areas while securing RTK accuracy.

### A Selection of Field Surveying Software

The CHC Landstar 5 gives full control over data collection and stakeout, without compromising ease-of-use and high productivity.

Carlson SurvCE combines advanced functionality and an intuitive user interface. SurvCE is a complete data collection system for real time RTK GPS and can be upgraded to take control of total stations and advanced road projects.

### Compact and rugged

The X900+ innovative design integrates a built-in GNSS core, multi-constellation antenna, Bluetooth® communication and optional UHF and GSM/GPRS modules in one single receiver.

### Exceptional Performances to Price Ratio

CHC X900+ GNSS receiver brings extremely affordable high-end GNSS RTK solution to surveyors without the conventional cost associated.

# Technical Specifications

## GNSS characteristics

- 120-channel signal tracking
  - GPS: L1, L2, L2C, L5
  - GLONASS: L1, L2
  - SBAS: WAAS, EGNOS, MSAS
  - BeiDou: B1, B2
  - Galileo: E1, E5A, E5B (optional)
- Advanced multipath mitigation technology
- Low noise carrier phase measurement

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

- Real Time Kinematics (RTK)
  - Horizontal: 10 mm + 1 ppm RMS
  - Vertical: 20 mm + 1 ppm RMS
  - Initialization time: < 10 s
  - Initialization reliability: > 99.9%
- Post Processing Static
  - Horizontal: 5 mm + 1 ppm RMS
  - Vertical: 10 mm + 1 ppm RMS

## Communications

- 1x RS232 serial port
- 1x high speed USB
- Integrated Bluetooth® class 2
- Integrated GSM/GPRS modem
- CHC radio modem internal Rx: 430-450/450-470 MHz
- Optional radio modem<sup>(2)</sup>:
  - Internal Rx/Tx: 403-473 MHz
  - External Tx DL5: 1W - 20W adjustable
- Protocols:
  - RTCM2.1, RTCM2.3, RTCM3.0, CMR, CMR+ and RTCA
  - NMEA0183 output
  - RINEX and HCN outputs for GNSS raw data
- Data Storage:
  - 4 GB internal memory
  - GPS device mounts as a USB external hard drive

## Physical

- Size (HxD): 84 x 179 mm (3.3 x 7.0 in)
- Weight: 1.4 kg with battery (49 oz)
- Operating temperature: -40 °C to +65 °C (-40°F to 149°F)
- Storage temperature: -40 °C to +75°C (-40°F to 167°F)
- Humidity: 100% condensation
- Waterproof and dust proof: IP67 - protected from temporary immersion to depth of 1 meter, floats
- Shock: survives a 2-meter drop on to concrete

## Electrical

- Power consumption: 2.6 W
- Li-ion battery capacity: 2200 mAh
- Battery life: typical 5 hours in RTK mode
- External power input: 9-18 VDC

## Software (optional)

- CHC's Landstar field data collection software
- Carlson's SurvCE field data collection software

(1) Accuracy and reliability specifications may be affected by multi path, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (2) UHF type approvals are country specific.

Specifications are subject to change without notice.

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