



KEY FEATURES FUTURE PROOF GNSS TECHNOLOGY

Embedded leading GNSS core
module
GPS/GLONASS/GALILEO

CONNECTIVITY

Built-in GPRS modem and UHF
Radio

COMPATIBILITY

Seamless interoperability with
major GPS/GNSS
manufacturers

COMPACT & RUGGED

Small, lightweight and rugged
design for demanding
environment

The CHC X91GNSS is a compact GNSS receiver designed for high accuracy and productivity even in harsh environment. Powered by leading GNSS core engine, the X91 GNSS provides a cost effective solution to any surveying task.

Fully Integrated

Built-in GNSS engine, antenna, UHF and GSM/GPRS modules, Bluetooth® communication in one single unit to make your everyday work simple.

Compact and lightweight

The size of 18cmx8cm makes the new X91 only weight 1.25KG (Including battery). It significantly increases surveyors field work production.

Optimized for Network RTK

Connection to GPS or GPS+GLONASS RTK Networks is made easy and benefits from the unique X91 auto-connect feature.

Compatibility

The X91 RTCM compliance and UHF interoperability with major GPS brands allow a trouble free integration into an existing pool of survey instrument.

Competitive and Reliable

Outstanding performances and reliability at competitive price – the X91 is the perfect choice for demanding survey applications.

GNSS characteristic

- 220 channels with simultaneously tracked satellite signals :
 - GPS: L1C/A, L2C, L2E, L5
 - GLONASS: L1C/A, L1P, L2C/A, L2P
 - SBAS: WAAS, EGNOS, MSAS
 - Galileo: GIOVEA and GIOVEB
- . Advanced multipath mitigation
- . Low noise carrier phase measurement

Performance specifications

- Real Time Kinematics (RTK)
 - Horizontal: 10mm+1ppm RMS
 - Vertical: 20mm+1ppm RMS
 - Initialization time: 10s
 - Initialization reliability: typical >99.9%
- . Post Processing Static
 - Horizontal: 2.5mm+1ppm RMS
 - Vertical: 5mm+1ppm RMS
 - Baseline Length: ≤300km

Communications

- . 1 RS232 serial port
- . 1 high-speed USB
- . Integrated GSM/GPRS modem
- . Integrated Bluetooth® communications port
- . Optional radio modem
 - CHC DL3 : 1W20W adjustable (2)
 - Bandwidth (3): 410-430 / 450-470 Mhz
- . Protocols
 - RTCM2.1, RTCM2.3, RTCM3.0, CMR, CMR+ input and output
 - NMEA0183 and GSOF outputs
 - RINEX and HCN outputs for GPS raw data

Physical

- . Size (HxD): 80mm×180mm
- . Weight: 1.25Kg with battery
- . Working Temperature: -30 °C to +65 °C
- . Storage Temperature: -40 °C to +75 °C
- . Humidity: 100% condensation
- . Dustproof: IP67
- . Waterproof : protected from temporary immersion to depth of 1 meter, floating.
- . Shock : survive a 2 meters drop onto concrete

Electrical

- . Typical power consumption: 2.6W
- . Battery capacity : 2400mAh
- . Operating times on internal battery : 9 hours (Static), 5 hours(RTK)
- . External power input : 9-18VDC

Software

- . Optional Landstar field software
 - Intuitive and easy to use data field survey software (logging, stake-out, site calibration, ...)
- . Optional SurvCe® field software
 - Complete data collection solution for RTK GPS and Total Stations (optional)
 - Combines advanced functionality and ease-of-use.

(1) Accuracy, TTFF and reliability specifications may be affected by multi path, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites and follow up of recommended survey practices.

(2) UHF type approvals are country specific

(3) 410-430 Mhz setting on demand

Specifications are subject to change without notice.