



## High Performances GNSS Survey Solution

### KEY FEATURES

- **FUTURE PROOF GNSS TECHNOLOGY**  
Embedded leading GNSS core module  
GPS/GLONASS/GALILEO
- **CONNECTIVITY**  
Built-in GPRS modem and UHF data link
- **COMPATIBILITY**  
Seamless interoperability with major GPS/GNSS manufacturers
- **COMPACT & RUGGED**  
Small, lightweight and rugged design for demanding environment

The X6 GNSS RTK package brings together world leading GNSS technology, ultra-rugged field computer with integrated 3.5G modem for seamless RTK corrections management and versatile data collection software.

By combining decades of positioning and surveying know-how, the X6 GNSS is one of the most powerful GNSS RTK solution, with no compromise with quality but at a price point that every surveyors can afford

Easy-to-use, efficient and intuitive work flow, designed for advance network RTK survey, compact and rugged, the X6 is the perfect choice for demanding survey applications.

### X6 GNSS Receiver

The SOOKI X6 GNSS is a compact GNSS receiver designed for high accuracy and productivity even in harsh environment. Powered by 220 channels GNSS core engine, the X6 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 X6 only weight 1.25 kg

#### Optimized for Network RTK

Connection to GPS or GPS+GLONASS RTK Networks is made easy and benefits from the unique X6 auto-connect feature.

#### Compatibility

The X6 RTCM compliance 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.

## Rugged Data Controller

The handheld Nautiz X7 is a fully rugged handheld controller built to meet MIL-STD-810G with high-speed HSDPA wireless networking, designed for dependability under the most extreme weather conditions, environments, ...

- Transflective sunlight readable display
- Built-in 3M pixels auto-focus camera.
- Large storage capacity - Includes 4 GB of embedded memory storage
- Numeric keypad for easy data entry.
- Field Swappable 5600mAh Li-Ion Battery with Long Battery Life
- Integrated 3.5G modem for seamless network correction management.



## SurvCE - Data collection software

Carlson SurvCE combines advanced functionality and an intuitive user interface.

SurvCE is a complete data collection system for Real Time (RTK) GPS and Total Stations(\*) with in-field coordinate geometry.

- Support several GPS Networks protocols, such as NTRIP, TCP and UDP.
- Tab-Based MENU Structure. All commands are visible in each menu.
- Collect points in the graphics mode. Points plot as they are shot in the field or entered.
- Feature Coding – Add numerous coding styles & functions.
- Available in various languages including English, Spanish, Portuguese French, German, ...

(\*)

### Optional



## X6 GNSS



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# Technical Specifications

## 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: GIOVE-A and GIOVE-B
- Advanced multipath mitigation
- Low noise carrier phase measurement

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

- 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

- 1x RS232 serial port and 1x high-speed USB
- Integrated GSM/GPRS modem
- Integrated Bluetooth® communications port
- Optional radio modem
  - SOOKI DL5: 1W-20W adjustable<sup>2)</sup>
  - Bandwidth: 410-430 / 430-450 / 450-470 Mhz
- Protocols
  - RTCM2.1, RTCM2.3, RTCM3.0, CMR, CMR+ input and output
  - NMEA0183 and GSOFF 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 : 2200mAh
- Operating times on internal battery : 9 hours (Static), 5 hours(RTK)
- External power input : 9-18VDC

## Data Controller

- Operating System: Windows Mobile 6.1 Professional
- Processor:Marvell PXA310 806MHz
- Display:3.5" TFT LCD VGA(480 x 640)
- Storage & Memory:128MB MDDR,256MB NAND flash and 4GB Inand
- Expansion Slots: SDIO/SDHC card slot (up to 16GB SDHC memory card)
- IO Interface: Serial port(9-pin;D-sub),USB, Microphone, Speaker,
- Communication interface:
  - 3.5G WWAN(HSDPA / WCDMA / EDGE / GPRS / GSM)
  - 802.11b/g
  - Bluetooth (v2.0 + EDR Class 2)
- 3M pixels auto focus camera with LED light
- Power : Li-ion smart battery (5600mah)
- Dimensions & Weight: 8.9x3x17.8cm-530g
- Rugged Features : MIL-STD-810G and IP67 certified
- Operating temperature : -30C to 60C
- Storage temperature : -40C to 70C
- Humidity:95%RH,non-condensing

## Software (optional)

- Landstar
  - Easy to use and intuitive GPS field data collection software
- 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

Specifications are subject to change without notice.

HITOHIRO Co.Ltd  
1F., No.92, Sec. 2, Tingzhou Rd., Zhongzheng Dist.,  
Taipei City 100, Taiwan (R.O.C.)

Tel : +886-2-23636555

Fax : +886-2-23621186

Email : service@hitohiro.com.tw