



**Size:** 15.8 cm × 7.5 cm

**Weight:** 0.95 kg with two batteries

## Features

Support GPS L1/L2/L5, BeiDou B1/B2/B3, GLONASS L1/L2, Galileo E1/E5a/E5b/E6/AltBOC, QZSS L1/L2/L5, Navic L5, SBAS

Compact Design

Hot Swap Battery

User-friendly Interface

# S100 GNSS Receiver

## RELIABLE IN THE FIELD

SinoGNSS S100 GNSS receiver is a compact RTK GNSS receiver tracking all working constellations, which performs well with each constellation independently. With SinoGNSS QUANTUM™ technology and its strong anti-interference design, the S100 will provide available and reliable high-accuracy positioning no matter where you are.

## RUGGED AND EASE OF USE

The rugged housing with IP67 Dustproof & Waterproof design makes the S100 perfectly and effectively work even in harsh environments. Small volume with less than 1kg weight makes the S100 one of the most portable GNSS receivers meeting your RTK survey demands. Built-in 8GB internal memory enlarges your data storage in the field.

## INTEGRATED GNSS RECEIVER

The S100 GNSS receiver combines a GNSS board, Bluetooth® and adjustable TX & RX UHF into one compact device, which is one of the most reliable choices for any surveying tasks. Built-in GPRS/ GSM/4G modem ensures the S100 seamlessly work with all kinds of CORS.

## SMART BATTERY DESIGN

With two hot swap batteries, the S100 helps to extend working hours and ensure your fluent workflow in the field. The battery LEDs flash when battery shortage. Moreover, you will benefit from its consumer-grade battery design, compatible with Canon LP-E6, which is easy to purchase and replace in your local market.

# S100 GNSS Receiver

S Series GNSS Receiver

Ver.2021.11.09

## Signal Tracking

965 channels for simultaneously tracking satellite signals

GPS	L1C/A, L2C, L2P, L5
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b
GLONASS	L1, L2
Galileo	E1, E5a, E5b, E6, AltBOC
QZSS	L1C/A, L1C, L2C, L5
Navic	L5
SBAS	WAAS, EGNOS, MSAS, GAGAN, SDCM, BDSBAS

## Performance Specifications

Cold start	<50 s
Warm start	<30 s
Hot start	<15 s
Initialization time	<10 s
Signal re-acquisition	<1.5 s
Initialization reliability	>99.9%

## Positioning Specifications

Static and Fast Static	2.5 mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
Long Observations Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
Real Time Kinematic	8 mm + 1 ppm Horizontal 15 mm + 1 ppm Vertical
DGPS	<0.4 m RMS
SBAS	1 m 3D RMS
Standalone	1.5m 3D RMS

## Communications

1 Serial port (7 pin Lemo) Baud rates up to 921,600 bps

UHF modem<sup>1</sup>: Tx/Rx with full frequency range from 410-470 MHz<sup>2</sup>  
Transmit power: 0.5-2 W adjustable  
Range: 1-5 km<sup>3</sup>

4G modem  
4G Bands: 800/900/1800/2100/2600 MHz  
3G Bands: 900/2100 MHz  
2G Bands: 900/1800 MHz  
Support GSM, Point to Point/Points and NTRIP

Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz

5 LEDs (indicating Power, Satellite Tracking, GPRS Status and Differential Data)

Bluetooth® : V 4.0 protocol, compatible with Windows OS and Android OS

## Data Format

Correction data I/O	RTCM SC104 Version 2.x, 3.x formats, CMR(GPS only),CMR+(GPS only)
Position data output	ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GGK ComNav Binary update to 20 Hz

## Physical

Size(L × W × H)	15.8 cm × 7.5 cm
Weight	0.95 kg with two batteries

## Environmental

Operating temperature	-40 °C to +65 °C
Storage temperature	-40 °C to +85 °C
Humidity	100% non-condensing
Waterproof and dustproof	IP67,protected from temporary immersion to depth of 1 m
Shock	Designed to Survive a 2 m drop onto concrete

## Electrical and Memory

Input voltage	7-28 VDC
Power consumption	1.92 W <sup>4</sup>
Li-ion battery capacity	2 × 2000 mAh, up to 10 hours typically
Memory	8 GB <sup>5</sup>

## Software

Survey Master Android-based data collection software

Carlson SurvCE field data collection software (optional)

MicroSurvey FieldGenius field data collection software (optional)

- 1.UHF Modem and 4G Modem is default configuration and it can be removed according to your specific needs.
- 2.Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.
- 3.Working distance of internal UHF varies in different environments, the maximum distance is 5 Km in ideal situation.
- 4.Power consumption will increase if transmitting corrections via internal UHF.
- 5.8GB is the default internal memory and optional 16GB, 32GB is available to order. Please clarify when placing the order.

Specifications subject to change without notice.