

# S320™ GNSS Survey Receiver

## Built Surveyor Tough

### key features

- **SMS Communication**  
Send and receive status messages via SMS
- **Internal Radio SS/UHF & GSM Cellular**  
Optional UHF 400 MHz or 900 MHz internal radio eliminates the need for cables on both base and rover setups
- **Dual Bluetooth Ports**  
Connecting data collectors and CDMA modem devices
- **Dual Hot-Swap Batteries**  
Includes two lithium ion batteries, which provides more than 10 hours of battery life
- **2GB SD Memory Card**  
Removable SD card for data logging with powerful scripting capabilities
- **SureTrack™ Intelligence**  
Hemisphere GNSS' exclusive SureTrack intelligence gives you excellent RTK performance: Long-range RTK baselines; reliable RTK in congested environments; removes concerns of mixing GNSS data from various manufacturers; even if base is GPS only, rover can deliver complete GNSS performance where others may not; RTK rover uses every satellite it's tracking, even satellites not tracked at the base.
- **Auto Level Sensor**  
LEDs on the front of the S320 will assist with ensuring the unit is level.



---

## The Complete Package

Hemisphere GNSS supplies surveyors with the complete survey solution. Our survey kit comes with:

- 2 x S320 Receivers
- 1 x XF2 Data Collector (with Pole Bracket)
- 1 x Carlson SurvCE Field Survey Software License
- 4 x Batteries + 2 x Battery Chargers
- 1 x Durable Carrying Case
- Radio Antennas + Communication and Power Cables



precision@hemispheregnss.com  
www.hemispheregnss.com

# S320 GNSS Survey Receiver

## GPS Receiver

Receiver Type: Multi Frequency GNSS  
 Positioning Modes: RTK, L-band DGNSS/HP/XP, SBAS, External RTCM, Autonomous  
 Channels: 270  
 RTK Formats: CMR, CMR+, RTCM3, ROX  
 OmniSTAR Formats: VBS, HP, XP, G2  
 Update Rate/Recording Interval: Selectable from 1, 2, 4, 5, 10 Hz (20 Hz available)

## Performance

RTK:	RMS (67%)	2DRMS (95%)
	8 mm + 1 ppm Horizontal	15 mm + 1 ppm Vertical
Static Performance:	3 mm + 0.5 ppm	5 mm + 0.5 ppm
DGPS Performance:	0.3 m	
OmniSTAR HP:	0.1 m	0.2 m
SBAS (WAAS):	0.3 m	0.6 m
Autonomous, no SA: <sup>2</sup>	1.2 m	2.5 m

## Satellite Tracking

GPS: L1C/A, L1P, L2P, L2C  
 GLONASS: L1C/A, L1P, L2P, L2C/A  
 SBAS: MSAS, WAAS, EGNOS, GAGAN  
 L-band Differential: OmniSTAR®, Marinestar®

## Communication

Bluetooth: Dual Port  
 Radio and GSM Options: Integrated  
 1 x GSM/GPRS  
 1 x SS 900 MHz or  
 UHF Range: 400 MHz  
 CDMA capable

## User Interface

LED Display: 8 status LEDs  
 Buttons: On/Off, function select  
 Data Storage: Removable SD/SDHC card, USB flash drive

## Ports

1 x Power Input (2-pin circular)  
 1 x RS232 (9-pin circular, multi-use)  
 1 x RS232 (DSUB 9-pin)  
 1 x Radio Antenna Connector

## Environmental

Operating Temperature: -30°C to +70°C (-22°F to +158°F)  
 Storage Temperature: -40°C to +85°C (-40°F to +185°F)  
 Humidity: Up to 100%  
 Enclosure: IP67, EP455, waterproof, dustproof  
 Shock: 2 m (6.56') pole drop

## Power

Battery: 2 x Li-ion 5.2 Ah total, 7.4V (10-hour hot swappable battery life)  
 External Voltage: 9 to 32 VDC

## Mechanical

Dimensions: 114 mm H x 197 mm D (4.49" H x 7.76" D)  
 Weight: 1.51 kg (3.33 lbs)  
 Material: Lexan™ EXL resin



- 1 Power Button
- 2 UHF Radio/GSM LED Indicator
- 3 GPS Lock LED Indicator
- 4 DGPS Lock LED Indicator
- 5 Left Battery LED Indicator
- 6 Right Battery LED Indicator
- 7 External Power LED Indicator
- 8 Bluetooth® LED Indicator
- 9 SD Card Logging LED Indicator
- 10 Select Button
- 11 Li-ion Hot-Swappable Batteries
- 12 SD Card Slot
- 13 SIM Card Slot
- 14 Internal Radio
- 15 Tape Measure Hooks
- 16 2-pin Circular Power Input
- 17 9-pin Circular Multi-use
- 18 Radio Antenna Connector
- 19 Serial Port

\* Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activity

\*\* Depends on multipath environment, number of satellites in view, satellite geometry, and ionospheric activity

## Authorized Distributor:



Copyright Hemisphere GNSS, Inc. All rights reserved. Specifications subject to change without notice.

Hemisphere GNSS and Hemisphere GNSS logo are trademarks of Hemisphere GNSS, Inc. OmniSTAR is a registered trademark of Trimble Navigation Limited. Marinestar is a registered trademark of Fugro.

Rev. 05/14



Hemisphere GNSS, Inc.  
 8444 N 90th Street, Suite 120  
 Scottsdale, AZ, USA 85258

Toll-Free: +1-855-203-1770  
 Phone: +1-480-348-6380  
 Fax: +1-480-270-5070  
 precision@hemispheregnss.com  
 www.hemispheregnss.com