

# SL900 GNSS Receiver

## Data Specifications

### GNSS

#### Signal Tracking

GPS (L1C/A, L1C, L2C, L2P, L5)  
GLONASS<sup>1</sup> (L1C/A, L2C, L2P, L3, L5)  
BeiDou<sup>2</sup> (B1, B2, B3)  
Galileo<sup>3</sup> (E1, E5AltBOC, E5a, E5b, E6)  
IRNSS (L5)  
QZSS (L1C/A, L1C, L2C, L5, L6)  
SBAS (L1, L5)  
L-Band (Up to 5 Channels) TerraStar®

#### No. of Channels

555

### MEASUREMENT PERFORMANCE

#### Real-time Kinematic

H: 8mm + 1ppm RMS / V: 15mm + 1ppm RMS

#### Network RTK

H: 8mm + 0.5ppm RMS / V: 15mm + 0.5ppm RMS

#### Post Processing Kinematic

H: 8mm + 1ppm RMS / V: 15mm + 1ppm RMS

#### High-precision Static

H: 2.5mm + 0.1ppm RMS / V: 3.5mm + 0.4ppm RMS

#### Static and Fast Static

H: 2.5mm + 0.5ppm RMS / V: 5mm + 0.5ppm RMS

#### DGPS Position Accuracy

H: 25cm RMS / V: 50cm RMS

#### SBAS Position Accuracy

H: 50cm RMS / V: 85cm RMS

#### Code Differential

DGPS/RTCM

#### Initializing Time

2-10s

#### Initializing Reliability

99.9%

### COMMUNICATIONS

#### Communication Ports

Internal 4G Mobile Network  
TDD-LTE/FDD-LTE/WCDMA/GPRS/GSM  
Bluetooth: V2.1 + EDR, NFC  
Wi-Fi: 2.4G , 802.11b/g/n  
Internal Radio: Satel radio for Tx/Rx<sup>4</sup>

### SYSTEM

#### Operation System

Linux

#### Start-up Time

3s

#### Data Storage

Circulating 16GB Internal Storage;  
Supports 32G SD card

### DATA MANAGEMENT

5 Hz Update (up to 100 Hz<sup>5</sup>)  
CMR, RTCM2.X, RTCM3.0, RTCM3.2  
GNS, Rinex  
TerraStar® and RTK Assist Service

### GENERAL

#### Environmental

IP67 environmental protection  
Waterproof to 1m (3.28ft) depth  
Temporary Submersion  
Shock resistant body to 2m (6.5ft) pole drop  
Temperature -40°C to 65°C Operating  
-40°C to 85°C Storage

#### Physical Properties

Size: 170mm x 95mm  
Weight: 1.2kg including battery  
Battery: 5,000mAh Lithium-Ion Battery  
Battery Life: 10 hours (RTK Rover)

#### Note

<sup>1</sup> Hardware ready for L3 and L5

<sup>2</sup> Designed for BeiDou phase 2 and 3, B1 and B2 compatibility. B3 conditionally supported and subject to change.

<sup>3</sup> E1bc support only. Hardware ready for E6b/c

<sup>4</sup> Optional

<sup>5</sup> Optional: Frequency 865-867 MHz, transmitting power 0.1w-1w adjustable

# SL900 GNSS Receiver



The SL900 is a high-precision GNSS receiver that performs even under the most demanding conditions. With its features, the SL900 is capable of delivering highly accurate data in real-time to any devices via a Bluetooth connection. Compact and lightweight, this GNSS receiver is one of the most flexible solutions that promises positioning reliability.



Tilt compensation solution

With surveyors in mind, Satlab designed a solution to increase efficiency in your workflow by cutting down time wasted from offsetting slanted measurements. With the tilt compensator, the SL900 can save up to 20 percent of time compared to conventional surveying practices. This solution allows you to focus on your surroundings conveniently while ensuring your safety and comfort.



Applications

- Monitoring
- Mapping
- Land Survey
- Topography and As-built
- Landfill
- Hydrographic
- Agriculture
- Sensor
- UAV Base Station

Efficient and dependable

Powered by NovAtel OEM729 GNSS engine, this receiver offers precise positioning and advanced interference mitigation which performs even in the most remote or challenging environments. Using its 555 channel tracking capabilities, it can track all current and upcoming signals, offering sub-metre to centimetre precise positioning with different modes (RTK, PPK, Static).

Satellite correction service

The SL900 has TerraStar capabilities that use a global network of multi-GNSS reference stations and advanced algorithms to generate highly precise GNSS satellite orbit, clock, biases, and other system parameters. These data allow TerraStar to provide correction services with sub-metre or centimetre-level positioning accuracy to SL900 receivers. Get your corrections transmitted in real-time, with minimal latency via satellites and cellular networks worldwide.

TECHNICAL SUPPORT  
Satlab offers online resources and a professional support network available worldwide.

