SL900 GNSS Receiver

Data Specifications

GNSS

Signal Tracking	GPS: L1C/A, L1C, L1PY, L2C, L2P, L5 GLONASS: L1CA, L2CA, L2P, L3 CDMA[1] Beidou: B1I, B1C, B2a, B2I, B3[1] Galileo: E1, E5a, E5b, E5 AltBoc, E6[1] QZSS: L1C/A, L1C, L2C, L5, L6 IRNSS: L5 SBAS: Egnos, WAAS, GAGAN, MSAS, SDCM (L1, L5) On module L-band
Additonal Technologies	AIM+ unique anti-jamming and monitoring system against narrow and wideband interference IONO+ advanced scintillation mitigation APME+ a posteriori multipath estimator for code and phase multipath mitigation LOCK+ superior tracking robustness under heavy mechanical shocks or vibrations
No. of Channels	1760

MEASUREMENT PERFORMANCE

Real-time Kinematic	H: 6 mm + 0.5 ppm RMS / V: 10 mm + 1 ppm RMS
Network RTK	H: 8 mm + 0.5 ppm RMS / V: 15 mm + 0.5 ppm RMS
Post Processing Kinematic	H:8 mm + 1 ppm RMS / V:15 mm + 1 ppm RMS
High-precision Static	H: 2.5 mm + 0.1 ppm RMS / V: 3.5 mm + 0.4 ppm RMS
Static and Fast Static	H: 2.5 mm + 0.5 ppm RMS / V: 5 mm + 0.5 ppm RMS
DGPS Position Accuracy	H: 25 cm RMS / V: 50 cm RMS
SBAS Position Accuracy	H: 50 cm RMS / V: 85 cm RMS
Code Differential	DGPS/RTCM
Initializing Time	2 - 8 s
Initializing Reliability	99.9%
Time to frist Fix	Cold start:< 45 s Hot start:< 30 s Signal re-acquisition:< 2 s
Tilt Survey Performance[2]	Additional horizontal pole-tilt uncertainty typically less than 10mm +0.7 mm/°tilt (2.5cm accuracy in the inclination of 30°)

INTERNAL RADIO [2]

Frequency | Working Range	403MHz~473MHz | Typically 5km, optimally 8-10km
Transmitting Power	1- 4 W , Support HI-TARGET, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc..

COMMUNICATIONS

Communication Ports	Internal 4 G Mobile Network TDD-LTE/FDD-LTE/WCDMA/GPRS/GSM NTrip Enabled Bluetooth: V2.1 + EDR, NFC, Mini USB Wi-Fi: 2.4 G , 802.11 b/g/n

SYSTEM

Operation System	Linux
Start-up Time	3 s
Data Storage	Circulating 8 GB Internal Storage; Supports 32 G SD card

DATA MANAGEMENT

1 Hz Update (up to 20 Hz)
CMR, CMR+, RTCM2.X, RTCM3.0, RTCM3.2
GNS, Rinex

GENERAL

Environmental	IP67 environmental protection Waterproof to 1m (3.28ft) depth Temporary Submersion Shock resistant body to 2 m (6.5ft) pole drop Temperature -40°C to 65°C Operating -40°C to 85°C Storage
Physical Properties	Shock and vibration: MIL-STD-810 G, 514.6 Size: 170 mm x 95 mm Weight: 1.2 kg including battery Battery: 5,000 mAh Lithium-Ion Battery Battery Life: 10 hours (RTK Rover)

Note

[1] Hardware ready
[2] IMU and Internal Radio is optional

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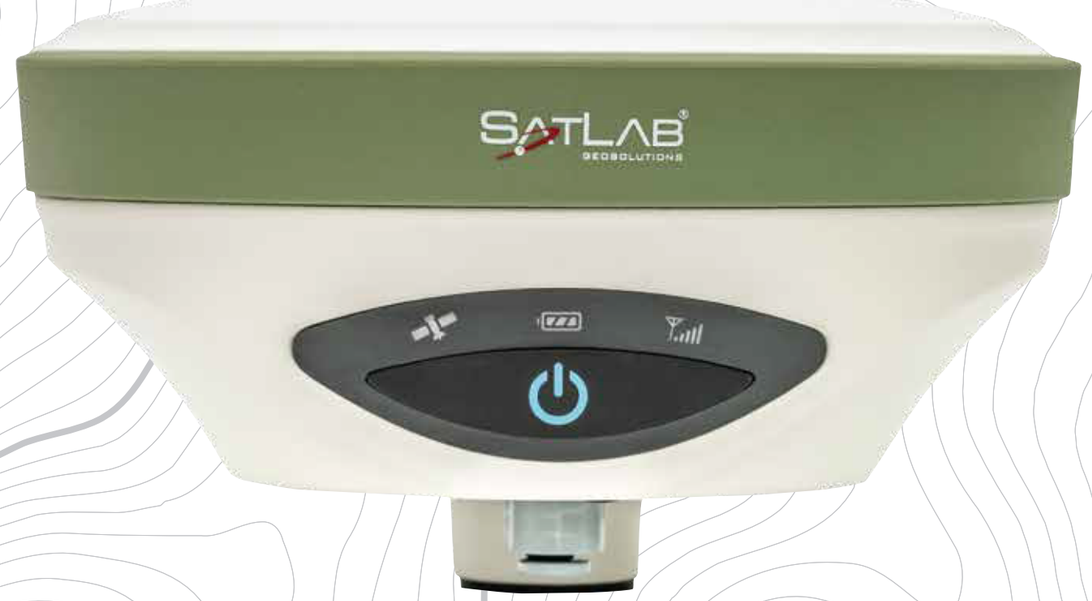
SATLAB® GEOSOLUTIONS

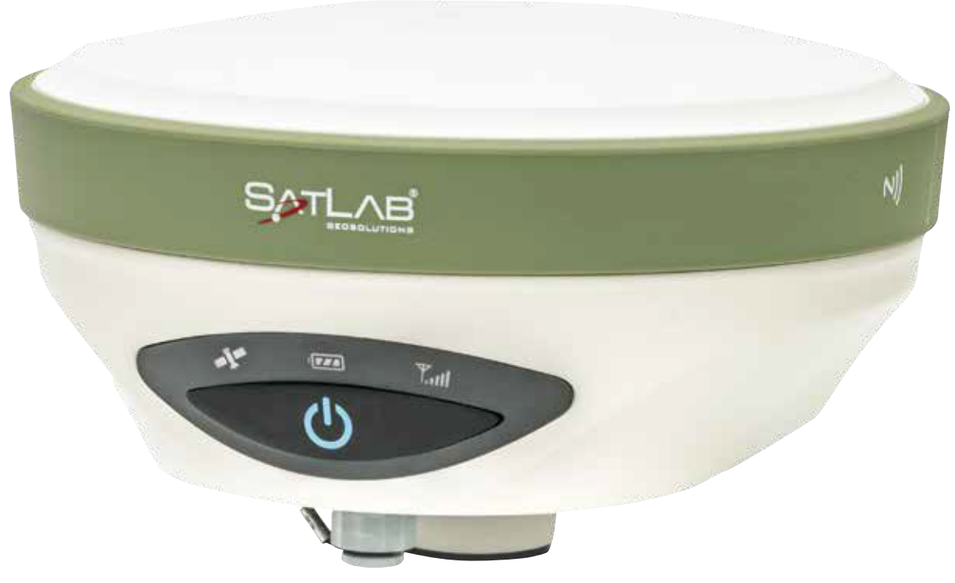
SL900

GNSS Receiver



Made by Sweden

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.



Swedish Quality

Multi-Constellation Tracking

Bluetooth

Long Battery Life (> 8 hours)

Windows Compatibility

Android Compatibility

iOS Compatibility

NFC Module

Internet RTK Technology

PPK Mode

Efficient and dependable

Powered by advaned GNSS engine, this receiver offers precise positioning and advanced interference mitigation which performs even in the most remote or challenging environments. Using its 1760 channel tracking capabilities, it can track all current and upcoming signals, offering sub-metre to centimetre precise positioning with different modes (RTK, PPK, Static).

Applications

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

Advanced Technologies Inside

SL900 enables accuracy and reliability in the toughest conditions, allowing you to complete projects with high quality and efficiency. It includes:

AIM+ : the most advanced on-board interference mitigation technology on the market (narrow and wide band, chirpjammers) .

LOCK+: for robust tracking during high vibrations andshocks.

APME+: multipath mitigation to disentangle direct signal and those reflected from nearby structures.

IONO+: provides advanced protection against ionospheric disturbances.

TECHNICAL SUPPORT

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

Multi-Constellation Tracking

NFC Technology

Data Collector

Long Battery Life

Professional Support Network