

SL700 GNSS Receiver



GNSS PARAMETERS

No. of Channels	800 ¹
Signal Tracking	GPS (L1, L2, L5, L2C) GLONASS (L1, L2, L3) BeiDou (B1, B2, B3, B1C, B2a) Galileo (E1, E5, AltBOC, E5a, E5b, E6) QZSS (L1, L2, L5, L6) SBAS (L1, L5) IRNSS(L5)

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
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	H: 0.25m + 1ppm RMS / V: 0.5m + 1ppm RMS
Initialization time	<10s
Initialization Reliability	99.9%
Hi-Fix ⁴	H: RTK ⁵ +10mm/minute RMS / V: RTK ⁵ + 20mm RMS

COMMUNICATIONS

Network	Internal 4G mobile network, including TDD-LTE/FDD-LTE/ WCDMA/EDGE/GPRS/GSM modes. V4.0/2.1+EDR
Bluetooth	2.4GHz , 802.11b/g/n
Wi-Fi	Yes
NFC	Yes
I/O Interface	USB, TNC antenna port, SIM card slot, DC power input (5-pin)

INTERNAL RADIO

Frequency	403MHz~473MHz
Power	1W/2W/4W adjustable
Protocols	TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc..
Transmitting Speed	19200 bps/9600 bps
Working Range	Typically 5km, optimally 8-10km

INTERNAL RADIO(OPTIONAL)

Frequency	865MHz~867MHz
Power	10, 20, 50, 100, 200, 500, 1000 mW adjustable
Protocols	SATEL 3AS
Transmitting Speed	9600 – 115200 bps
Working Range	Distances ranging from tens or hundreds of metres up to around 80 kilometres.

DATA MANAGEMENT

Positioning Output Frequency	1Hz~20Hz
TerraStar and RTK Assist service	/
Output Format	ASCII: NMEA-0183, binary data
Message Type	CMR, RTCM2.X, RTCM3.0, RTCM3.2
Static Data Format	GNS, Rinex

SYSTEM

Operation System	Linux
Data Storage	8GB internal storage

ENVIRONMENT

Water/dustproof	IP67 environmental protection Waterproof to 1m (3.28ft) depth Temporary Submersion Shock resistant body to 2m (6.5ft) pole drop
Free Fall	
Operation Temperature	-40 C ~65 C
Storage Temperature	-40 C ~85 C
Humidity	95%, condensing

PHYSICAL PROPERTIES

Internal Battery	5000mAh lithium-ion rechargeable and remove battery
Internal Battery Life	RTK rover (UHF/Cellular) ≥13 hours
External Power	6~28V DC
Power Consumption	4.2W
Weight	≤1.2kg (without battery)

Note

- ¹ Hardware ready for L3 and L5
- ² E1bc and E6bc support only
- ³ Hardware ready for L5
- ⁴ Accuracies are dependent on GNSS satellite availability. Hi-Fix positioning ends after 5 minutes of radio downtime. Hi-Fix is not available in all regions, check with your local sales representative for more information.
- ⁵ RTK refers to the last reported precision before the correction source was lost and Hi-Fix started.

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Made by Sweden

Satlab SL700 is an easy-to-use device that is designed to be compact and rugged for your everyday surveying usage. Made to withstand the harshest weather conditions, the SL700 performs with great mobility and flexibility. This innovative receiver delivers the most accurate results in the most efficient way for your fieldwork.

- 
Swedish Quality
- 
Multi-Constellation Tracking
- 
Internet RTK Technology
- 
PPK Mode
- 
Long Battery Life (> 13 hours)
- 
Bluetooth
- 
NFC Module
- 
Windows Compatibility
- 
Android Compatibility

Applications

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



Efficient and dependable

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

Hi-Fix Technology (optional)




It can reduce downtime in the field with continuous RTK coverage during correction outages from an RTK base station or VRS network.

Innovation technology

Beneficial from the innovative measuring algorithm, SL700 offers stable and reliable positioning accuracy in the challenging environment.

High-performance UHF radio

SL700 supports the optional internal radio module to meet users' needs for radio transmission frequency in the special area.

- 
WebUI
- 
High-performance Built-in Radio
- 
Professional Support Network

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