

SL700 GNSS Receiver

Data Specifications



GNSS

Signal Tracking

GPS (L1C/A, L1C, L2C, L2P, L5)
GLONASS¹ (L1C/A, L2C, L2P, L3, L5)
BeiDou² (B1, B2, B3)
Galileo³ (E1, E5 AltBOC, 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

<10s

Initializing Reliability

99.9%

COMMUNICATIONS

Communication Ports

Internal 4G Mobile Network
TDD-LTE/FDD-LTE/WCDMA/GPRS/GSM
Bluetooth V2.1 + EDR, NFC
Internal Radio: Satel Radio for Tx/Rx

SYSTEM

Operation System

Linux

Start-up Time

3s

Data Storage

8GB internal storage

DATA MANAGEMENT

5 Hz Update (up to 100 Hz⁴)
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: 164mm x 83.5mm
Weight: 1.4kg including battery
Battery: 5,000mAh Lithium-Ion Battery
Battery Life: 10 hours
(Static Measurement / RTK Rover)

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Note

¹ Hardware ready for L3 and L5

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

³ E1bc support only. Hardware ready for E6bc

⁴ Optional

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.



New and improved innovation technology

Powered by multi-constellation tracking, SL700 offers accurate and precise results with improved performance. Armed with a NovAtel OEM729 GNSS engine, this GNSS receiver features a multi-device interface depending on your application which boosts your productivity and efficiency.



Applications

- 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 SL700 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 SL700 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.

