SL700 GNSS Receiver No. of Channels

GNSS PARAMETERS

Type

Standard

555

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®

Optional

GPS (L1, L2, L5) GLONASS (L1, L2) BeiDou (B1, B2, B3) Galileo (E1, E5a, E5b) QZSS (L1, L2C, L5) SBAS (L1)

MEASUREMENT PERFORMANCE

Real-time Kinematic H: 8mm + 1ppm RMS / V: 15mm + 1ppm RMS H: 8mm + 0.5ppm RMS / V: 15mm + 0.5ppm RMS **Network RTK** H: 2.5mm + 0.1ppm RMS / V: 3.5mm + 0.4ppm RMS **High-precision Static** H: 2.5mm + 0.5ppm RMS / V: 5mm + 0.5ppm RMS Static and Fast Static **DGPS** H: 0.25m + 1ppm RMS / V: 0.5m + 1ppm RMS

Initialization time 99.9% Initialization Reliability

V2.1 + EDR

COMMUNICATIONS

Network

Bluetooth

I/O Interface

Protocols

Internal 3G mobile network, including UTMS/WCDMA/GPRS/GSM modes.

Internal 4G mobile network, including TDD-LTE/FDD-LTE/WCDMA/EDGE/ GPRS/GSM modes.

V4.0/2.1+EDR 2.4GHz, 802.11b/g

Wi-Fi 2.4GHz, 802.11b/g/n NFC

USB, TNC antenna port, SIM card slot, DC power input (5-pin)

INTERNAL RADIO Frequency

403MHz-473MHz Power 0.1~1W

1W/2W/4W adjustable Support most of radio communication HI-TARGET, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc..

protocls. **Transmitting Speed** 19200 bps/9600 bps

Typically 3-5km, optimally 5-8km **Working Range**

INTERNAL RADIO(OPTIONAL)

Frequency Protocols Transmitting Speed **Working Range**

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

Typically 5km, optimally 8-10km

403MHz~473MHz

19200 bps/9600 bps

1Hz~20Hz

DATA MANAGEMENT

Positioning Output Frequency 5Hz (Up to 100Hz) TerraStar and RTK Optional Assist service

Output Format ASCII: NMEA-0183, binary data CMR, RTCM2.X, RTCM3.0, RTCM3.2 Message Type Static Data Format GNS, Rinex

Free Fall

Operation System Data Storage

Linux 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

Operation Temperature Storage Temperature Humidity

-40°C ~65°C -40°C ~85°C 95%, condensing

PHYSICAL PROPERTIES

Internal Battery Internal Battery Life **External Power Power Consumption** Weight

5000mAh lithium-ion rechargeable and remove battery RTK rover (UHF/Cellular) 10 hours 6~28V DC 1.2kg (without battery)

¹ Hardware ready for L3 and L5

² E1bc and E6bc support only ³ Hardware ready for L5

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









NSTRUMENTATION

ENGINEERS PVT. LTD.

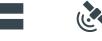
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Satlab SL700 is an easy-to-use device that is designed to be compact and rugged for your everyday surveying usage. Made to withstand the harshest weather conditions, the SL700 performs with great mobility and flexibility. This innovative receiver delivers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

























Applications

Mapping

- Hydrographic

Sensor

• Landfill

- Land Survey
- UAV Base Station

- Topography and As-built
- Agriculture





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).

Satellite correction service

The SL700 built-in NovAtel OEM729 GNSS engine supports 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-meter or centimeter-level positioning accuracy to SL700 receivers. Get your corrections transmitted in real-time, with minimal latency via satellites and cellular networks worldwide.

Innovation technology

Beneficial from the innovative measuring algorithm, SL700 offers stable and reliable positioning accuracy in the challenging environment by shaking the device in tilt survey mode.

High-performance UHF radio

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











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