Eyr GNSS Receiver

Data Specifications

GNSS

Signal Tracking①	GPS (L1C/A, L2C, L2P, L5) BDS (B1I, B1C, B2a, B2b, B2I, B3I) GLONASS (L1CA, L2CA, L2P, L3) Galileo (E1, E5a, E5b, E5 AltBoc) QZSS (L1C/A, L1S, L2C, L5) NavIC (L5) SBAS*(L1, L2, L5) PPP(B2b-PPP)
No. of Channels	1760

POSITIONING PERFORMANCE②

High-precision static GNSS Surveying	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
Post Processing Kinematic (PPK / Stop & Go)	H:8mm + 1 ppm RMS / V:15 mm + 1 ppm RMS Initialization time: Typically 10 min for base and 5 min for rover Initialization reliability: Typically>99.9%
B2b-PPP	H: 10cm / V: 20cm
Code Differential GNSS Positioning	H:±0.25m+1ppm RMS I V:±0.5m+1ppm RMS I SBAS:0.5m(H)
Real Time Kinematic (RTK)	H:8 mm+1ppm RMS / V:15 mm+1 ppm RMS Initialization time: Typically <10 s Initialization reliability: Typically > 99.9%
Positioning rate	1 Hz, 5 Hz and 10 Hz
Time to first Fix	Cold start:< 45 s I Hot start:< 30 s I Signal re-acquisition:< 2 s
Tilt Survey Performance③	Additional horizontal pole-tilt uncertainty typically less than 8 mm +0.7 mm / °tilt (0° ~ 60°)
Hi-Fix④	H:RTK+10 mm / minute RMS / V:RTK+20 mm / minute RMS

COMMUNICATION

Communication	Bluetooth: 4.0 / 2.1+EDR, 2.4 GHz / NFC Wi-Fi: frequency 2.4 GHz, Supports 802.11 b / g / n
Internal UHF Radio	Frequency: 410-470 MHz I Channel: 116 Transmitting power: 0.5 W / 1 W / 2 W adjustable Supports multi-communication protocols: HI-TARGET, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL, etc. Working Range: Typically 3~5km, optimal 8~15km

PHYSICAL

Internal battery⑤	Internal 7.2 V / 6900 mAh lithium-ion rechargeable battery. RTK Rover (UHF/Cellular) for 15 hours.
External power	Power consumption: 4.2W I Dimensions (W×H): 130mm×79mm Charging:using standard smartphone chargers or external power banks.(Support 5V 2.8A Type-C USB external charging) Weight:≤0.97 kg (includes battery) Data storage:8GB ROM internal storage

Control Panel

LED Lamp	Satellite, Signal, Power I Physical button: 1

Camera

Pixel	2MP&5MP Support real scene stakeout, image measurement, working distance 2~15m

Environment

Water / Dustproof	IP68
Shock and vibration	MIL-STD-810G, Designed to survive a 2 m natural fall onto concrete
Humidity	100%, condensing
Operation temperature	-40℃~+75℃
Storage temperature	-55℃~+85℃

Image Accuracy

Image Stakeout	Typically 1cm
Image Measurement	2cm~4cm(range 2~15 m)

I / O Interface

USB type C interface; SMA interface; Nano SIM card slot

Data Formats

Output rate	1Hz-20Hz.
Static data format	GNS, Rinex
Network model	VRS, FKP, MAC; supports NTRIP protocol
Real Time Kinematic (RTK)	RTCM 3.x
Navigation outputs ASCII	NMEA-0183

*Description and Specifications are subject to change without notice.

[1]SBAS service can be provided by firmware upgrade, PPP service is not available in all regions, check with your local sales representative for more information.
[2]The measurement accuracy, precision, reliability and initialization time depend on various factors, including tilt angle, number of satellites, geometric distribution, observation time, atmospheric conditions and multi-path validation, etc. The data are derived under normal conditions.
[3]Irregular operations such as rapid rotation and high-intensity vibration may affect the inertial navigation accuracy.
[4]Accuracies are dependent on GNSS satellite availability. Hi-Fix Positioning ends after 5 minutes without differential data.Hi-Fix is not available in all regions, check with your local sales representative for more information.
[5]The battery operating time is related to the operating environment, operating temperature and battery life.

SATLAB GEOSOLUTIONS

Headquarters:
GEOSOLUTION I GÖTEBORG AB
Stora Åvägen 21, 436 34 ASKIM, Sweden

Regional Offices:
Warsaw, Poland
Jičín, Czech Republic
Ankara, Turkey
Scottsdale, USA
Singapore
Hong Kong, China
Dubai, UAE

www.satlab.com.se

SATLAB GEOSOLUTIONS

Eyr
GNSS Receiver

ISO 9001 CERTIFIED CE FC IP68

Made by Sweden