Eyr GNSS Receiver

Data Specifications

GNSS

Signal Tracking①	GPS (L1C/A，L1C，L2P(Y)，L2C，L5) BDS (B1I，B2I，B3I，B1C，B2a，B2b*) GLONASS (L1，L2, L3) Galileo (E1，E5a，E5, AltBOC, E5b，E6*) SBAS(L1，L2，L5) QZSS (L1，L2，L5，L6*) IRNSS (L5)
No. of Channels	1408/800+（optional）

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	H:8mm + 1 ppm RMS / V:15 mm + 1 ppm RMS
(PPK / Stop & Go)	Initialization time: Typically 10 min for base and 5 min for rover Initialization reliability: Typically>99.9%
Code Differential GNSS Positioning	H:±0.25 m+1 ppm RMS V:±0.5 m+1 ppm RMS SBAS: 0.5 m (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%
Time to first Fix	Cold start:< 45 s Hot start:< 30 s Signal re-acquisition:< 2 s
Tilt Survey Performance③	Additional horizontal pole-tilt uncertainty typically less than 8 mm +0.7 mm / °tilt (2.5 cm accuracy in the inclination of 60°)
Hi-Fix	H:RTK+10 mm / minute RMS / V:RTK+20 mm / minute RMS

COMMUNICATION

Communication	Bluetooth: 4.2 / 2.1+EDR, 2.4 GHz Wi-Fi: frequency 2.4 GHz, Supports 802.11 b / g / n
Internal UHF Radio	Frequency: 410-470 MHz ｜ Channel: 116 Transmitting power: 0.5 W / 1 W / 2 W adjustable Supports multi-communication protocols: HI-TARGET, TRIMTALK450S, TRIMMARK Ⅲ, TRANSEOT, SATEL, etc.

PHYSICAL

Internal battery ④	Internal 7.2 V / 6900 mAh lithium-ion rechargeable battery. RTK Rover (Network) for 12 hours. ｜ Static: up to 15 hours
External power	Power consumption:4.2W ｜ 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 ｜ 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	-45 C ~+75 C
Storage temperature	-55 C ~+85 C

Image Accuracy

Stakeout/Image Measurement	Typically 2cm/2cm~4cm

I / O Interface

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

Data Formats

Output rate	1Hz-20Hz.
Static data format	GNS, Rinex Dual Format Static Data
Network model	VRS, FKP, MAC; supports NTRIP protocol
CMR& RTCM	RTCM 2.x, RTCM 3.x
Navigation outputs ASCII	NMEA-0183

*Description and Specifications are subject to change without notice.
[1]BDS B2b, GALILEO E6, QZSS L6, IRNSS L5 can be provided by firmware upgrade.
[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]The battery operating time is related to the operating environment, operating temperature and battery life.

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Eyr

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ISO 9001 CERTIFIED CE FC IP68





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