

# Eyr GNSS Receiver

## Data Specifications

<b>GNSS Signal Tracking<sup>①</sup></b>	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(L1C/A, L5) QZSS (L1, L2, L5, L6*) IRNSS (L5) PPP(B2b-PPP)
<b>No. of Channels</b>	1408
<b>POSITIONING PERFORMANCE<sup>②</sup></b>	
<b>High-precision static GNSS Surveying</b>	H:2.5 mm + 0.1 ppm RMS / V:3.5 mm + 0.4 ppm RMS
<b>Static and Fast Static</b>	H:2.5 mm + 0.5 ppm RMS / V:5 mm + 0.5 ppm RMS
<b>Post Processing Kinematic (PPK / Stop &amp; Go)</b>	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%
<b>Code Differential GNSS Positioning</b>	H:±0.25m+1ppmRMS / V:±0.5m+1ppmRMS SBAS:0.5m(H) / PPP:20cm(H), 10cm(V)
<b>Real Time Kinematic (RTK)</b>	H:8 mm+1ppm RMS / V:15 mm+1 ppm RMS Initialization time: Typically <10 s Initialization reliability: Typically > 99.9%
<b>Time to first Fix</b>	Cold start:< 45 s Hot start:< 30 s Signal re-acquisition:< 2 s
<b>Tilt Survey Performance<sup>③</sup></b>	Additional horizontal pole-tilt uncertainty typically less than 8 mm +0.7 mm / °tilt (2.5 cm accuracy in the inclination of 60°)
<b>Hi-Fix</b>	H:RTK+10 mm / minute RMS / V:RTK+20 mm / minute RMS
<b>COMMUNICATION</b>	
<b>Communication</b>	Bluetooth: 4.2 / 2.1+EDR, 2.4 GHz Wi-Fi: frequency 2.4 GHz, Supports 802.11 b / g / n
<b>Internal UHF Radio</b>	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.
<b>PHYSICAL</b>	
<b>Internal battery<sup>④</sup></b>	Internal 7.2 V / 6900 mAh lithium-ion rechargeable battery. RTK Rover (Network) for 12 hours.   Static: up to 15 hours
<b>External power</b>	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
<b>Control Panel</b>	
<b>LED Lamp</b>	Satellite, Signal, Power   Physical button: 1
<b>Camera</b>	
<b>Pixel</b>	2MP&5MP Support real scene stakeout, image measurement, working distance 2~15m
<b>Environment</b>	
<b>Water / Dustproof</b>	IP68
<b>Shock and vibration</b>	MIL-STD-810G, Designed to survive a 2 m natural fall onto concrete
<b>Humidity</b>	100%, condensing
<b>Operation temperature</b>	-45 C ~+75 C
<b>Storage temperature</b>	-55 C ~+85 C
<b>Image Accuracy</b>	
<b>Stakeout/Image Measurement</b>	Typically 2cm/2cm~4cm
<b>I / O Interface</b>	
<b>USB type C interface; SMA interface; Nano SIM card slot</b>	
<b>Data Formats</b>	
<b>Output rate</b>	1Hz-20Hz.
<b>Static data format</b>	GNS, Rinex Dual Format Static Data
<b>Network model</b>	VRS, FKP, MAC; supports NTRIP protocol
<b>CMR&amp; RTCM</b>	RTCM 2.x, RTCM 3.x
<b>Navigation outputs ASCII</b>	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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ISO 9001 CERTIFIED CE FC IP68

