

R51 GNSS Receiver

A versatile monitoring receiver suitable for multiple uses



WHY CHOOSE ALLYNAV R51 GNSS RECEIVER

The R51E versatile monitoring receiver integrates a large-capacity battery, storage card, attitude sensor, Bluetooth, dual 4G modules, and a high-precision positioning board. With an IP67 protection rating, it is designed to operate reliably in harsh environments. The device supports real-time monitoring, intelligent analysis, online supervision, and early warning functions. It can also serve as a ground-based augmentation network base station, offering flexibility for multiple uses.

KEY FEATURES



Multi-constellation and multi-frequency positioning



Built-in solar power supply



High precision with low power consumption



Remote configuration and upgrade



IP67 protection rating



Large-capacity storage with data loop recording



BENEFITS

● High-Precision Positioning

Utilizes multi-constellation and multi-frequency systems like BDS, GPS, GLONASS, and Galileo to maintain high accuracy in various complex environments.

● Powerful Power Supply System

Supports multiple power sources, including mains electricity, batteries, and solar power, ensuring stable operation across different application scenarios.

● High Integration Design

The all-in-one design integrates multiple functional modules, reducing dependence on external devices and enhancing overall system performance and reliability.

● Remote Management and Monitoring

Supports remote configuration and upgrades, allowing users to monitor device status and data in real-time through the platform, improving management efficiency.



SPECIFICATIONS

Precision Indicators	Signal Tracking	PHYSICAL PERFORMANCE
Single Point Positioning:	BDS: B1I/B2I/B3I/ B1C/B2a/B2b	Operating temperature:-45°C to +75°C
Horizontal: 1.5m Vertical: 2.5m	GPS: L1C/A/L1C/L2C/L2P (Y) /L5	Storage temperature:-55°C to +85°C
RTK Accuracy:	GLONASS: G1/G2/G3	Physical dimensions: φ196.7mm × 129.5mm
Horizontal: 8mm+1ppm(RMS) Vertical: 15mm+1ppm(RMS)	Galileo: E1/E5a/E5b/E6	Weight: <1.65kg
Static Accuracy:	QZSS: L1C/A/L1C/L2C/L5	Ingress protection rating: IP67, floatable
Horizontal: 2.5mm+1ppm(RMS) Vertical: 5mm+1ppm(RMS)	NavIC: L5	Impact and vibration: Resistant to 2m drops
Speed Accuracy: 0.03m/s	SBAS: L1C/A	Indicator: 6 LED indicators
Electrical Parameters	Time of cold boot: <12s	Data Interfaces
Power Consumption: 1.5 to 4.0 W	Initialization time: <5s (typical value)	Differential Data: RTCM3.2
Supply voltage: 9 to 36V DC, supporting power-on auto-start, reverse connection protection	RTK initialization reliability: >99.9%	Communication:GSM 4G module
	Recapture: <1s	Bluetooth: BT4.0, backward compatible with BT2.X
		Network: TCP, NTRIP



APPLICATION



BRIDGE MONITORING



DAM MONITORING



MINE MONITORING

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