

R27 GNSS Receiver

Compact GNSS receiver for high-precision positioning across multiple industries.



WHY CHOOSE ALLYNAV R27 GNSS RECEIVER

The R27 GNSS Receiver is a versatile and compact device equipped with a full-frequency GNSS antenna, high-precision positioning board, IMU module, and integrated radio module. It can operate as both a rover and a base station, offering high accuracy, low power consumption, and a portable, user-friendly design. The R27 is ideal for applications such as surveying, precision agriculture, GIS, marine surveying, construction, mining, aerial photography, and UAV operations.

KEY FEATURES



Full Constellation Support:

Receives signals from all major satellite systems (BDS, GPS, GLONASS, Galileo, QZSS).



Durable Design:

IP67-rated for water and dust resistance; withstands drops from heights of up to 2 meters.



Smart Web Platform (WEBUI):

Accessible via mobile devices over Wi-Fi, enabling easy access to device status and configuration settings.



Integrated Radio Module:

Supports multiple communication protocols with a transmission range of up to 7 km.



Type-C Interface:

A standardized and versatile connection interface for fast data transfer and convenient charging.



IMU Module:

Enables quick calibration and provides 2.5 cm tilt compensation accuracy within a 30° tilt range.



Large Storage Capacity:

Equipped with 32 GB of internal storage for real-time data logging and job file management.



BENEFITS

• High Precision

Provides centimeter-level accuracy for precise measurements in a variety of environments.

• Multi-System Compatibility

Enhances reliability and signal stability by supporting multiple satellite constellations.

• User-Friendly

Easy to operate with an intuitive web interface and mobile connectivity.

• Extended Battery Life

A long-lasting battery ensures continuous operation over extended periods.



SPECIFICATIONS

Accuracy Indicators	Physical Parameters	Accuracy: 2.5 cm (within 30° tilt)
Single Point Positioning: Horizontal: 1.5 m Vertical: 2.5 m	Operating Temperature: -40°C to +60°C	Electrical Parameters
RTK Accuracy (RMS): Horizontal: 8 mm + 1 ppm Vertical: 15 mm + 1 ppm	Storage Temperature: -55°C to +75°C	Power Consumption: ≤3.0W
Static Accuracy (RMS): Horizontal: 2.5 mm + 0.5 ppm Vertical: 5 mm + 0.5 ppm	Dimensions: Φ99.7 mm × 95.4 mm × 63.1 mm	Battery Life: ≥15h (Rover), ≥7h(Base)
Speed Accuracy: 0.03 m/s	Protection Level: IP67	Radio Frequency: 410~470MHz
Signal Tracking	Impact and Vibration: Resistant to 2 m drop	Input Voltage: 5V = 2V
BDS: B1I / B2I / B3I / B1C / B2a / B2b	Buttons: 1	Battery Capacity: 4000 mAh
GPS: L1C / A / L2P(Y) / L2C / L5	Indicators: 3 LED indicators	Radio Power: 1W/1.5W
GLONASS: G1 / G2 / G3	Humidity: 95% non-condensing	Storage Capacity: 32 GB
Galileo: E1 / E5a / E5b / E6	Weight: 430g	Initialization Time
QZSS: L1 / L2 / L5	Data Output	Cold Start: <12 s
	Differential Data: RTCM 3.X	Initialization: <5 s (typical)
	Positioning Data: NMEA-0183	RTK Initialization Reliability: >99.9%
	Inertial Measurement	Reacquisition Time: <1 s
	Tilt Angle: 0-60°	Static Data: Binary



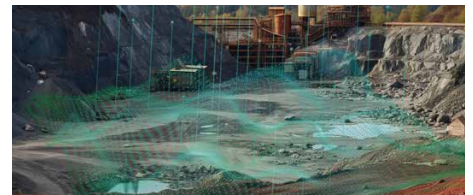
APPLICATION



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