

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.

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

KEY FEATURES



Full Constellation Support :

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



Smart Web Platform (WEBUI):

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



Type-C Interface:

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



Large Storage Capacity:



Durable Design:

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



Integrated Radio Module:

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



IMU Module :

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

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.

 **SPECIFICATIONS**
User-Friendly

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

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

Extended Battery Life

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



APPLICATION



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