

R10 SPECIFICATION

GNSS Performance	Channel	1408
	Signal tracking	GPS:L1C/A/L2P(Y)/L2C/L5
		GLONASS:L1/L2
		BDS:B1I/B2I/B3I/BIC/B2a/B2b
		Galileo:E1/E5a/E5b/E6
Positioning Performance	Positioning output rate	QZSS:L1/L2/L5/L6
		SBAS:L1
		1Hz~50Hz
		<5s
	Initialization reliability	99.99%
IMU	Static	H: 2.5mm+0.5ppm RMS
	Real-Time Kinematic	V: 5mm+0.5ppm RMS
Function Config	Accuracy	H: 8mm+1ppm RMS
	Tile Angle	V: 15mm+1ppm RMS
	Tilt Measurement	<2cm(within 60°)
	NFC	0° ~ 120°
Data Storage	PPK Survey	Support
	Buzzer	Support
	Data format	RTCM2x, RTCM3x
Communication	Data Output	NMEA 0183, Binary code
	Storage	8GB
Physical	Wireless Communication	Bluetooth, 4G
	Internal Radio	Transmitting power: Built-in 2W transceiver radio(LoRa)
		Frequency: 410~470MHz
Electrical	I/O Interface	Protocol: TRIMTALK450S,TRIMMARKIII,SOUTH
		1xUSB Type-C port for power supply and charging
		1xSMA radio antenna interface
		1x 5-pin LEMO connector (9V-14V)
	Dimensions	120mm×120mm×89mm
	Weight	630g
	Operating Temperature	-45°C ~ +75°C
	Storage Temperature	-55°C ~ +85°C
	Dust & waterproof	IP67
	Vibration	IK08
Electrical	Anti-shock	Survive 1.8m Pole Drop Onto Concrete
	Battery Specifications	7.4V,7000mAh Lithium-ion Rechargeable Battery
	Charging	Support USB and power bank power supply
	Working Time (Typical Power Consumption)	CORS: Up to 40 hours
Electrical	Working Time (Typical Power Consumption)	Rover: Up to 40 hours
		Base: Up to 7.5 hours

Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry, and atmospheric conditions. PPP accuracy is subject to the region, environment, and convergence time. High-precision static requires a minimum of 24 hours of long-term observation and precise ephemeris.



IDEAL FOR DIVERSE SURVEYS



GeoRise R10 GNSS RTK redefines an advanced IMU-RTK integrated multi-constellation tracking and self-calibrating IMU tilt compensation, eliminating initialization procedures. A high-capacity 7000mAh power battery with the ruggedized, ultra-portable design enhance workflow efficiency in complex environments

CALIBRATION-FREE IMU & 120° TILT COMPENSATION

Equipped with a next-gen 4D IMU and advanced tilt algorithms, R10 delivers <2cm tilt accuracy at 120° without manual calibration. Maintain productivity in complex terrains by measuring at any pole angle, eliminating repetitive initialization.



MULTI-CONSTELLATION HIGH-PERFORMANCE GNSS

Equipped with an advanced multi-channel GNSS chipset, R10 seamlessly integrates global satellite systems, including GPS, GLONASS, BEIDOU, Galileo, QZSS, SBAS, and IRNSS. Its multi-constellation fusion technology delivers high-precision spatial data solutions worldwide



ULTRA-LONG BATTERY LIFE

Featuring 7000mAh powerful battery, R10 delivers sustained RTK rover operation for up to 40 hours, ensuring uninterrupted all-day field operations under demanding surveying conditions.



DIVERSE WORKING MODE

To meet the versatile requirement of surveyors, R10 GNSS supports Static, RTK, and PPK working mode in one unified platform, adapting to modern geospatial demands.



Agriculture and Precision Farming



Building Construction



Pipeline measurement



Environmental monitoring