



M20 GNSS RTK

To be the Best
GNSS Solution Provider

CE FCC IP68

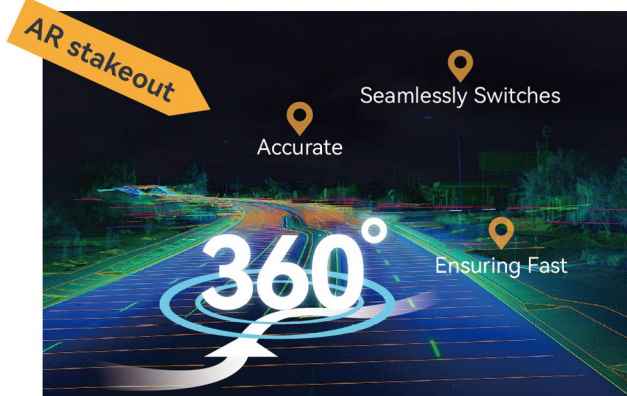
M20 LIVE VISUAL STAKEOUT GNSS RTK



Meridian M20 GNSS RTK is an innovative solution that combines advanced technology with **upgraded high-definition** Camera, IMU, and 4G integration. It is calibration-free, significantly boosting operational efficiency. **The compact and lightweight design makes M20 a feasible and portable choice for engineering personnel in stakeout, surveying and improving positional accuracy.**

AR Stakeout

Visual positioning eases point finding by overlaying design files onto real scenes, enhancing stakeout efficiency. A high-performance HD camera achieves high accuracy with precise signal tracking. The 360-degree AR stakeout seamlessly switches between the handheld controller and rover, ensuring fast and accurate stakeout experiences.



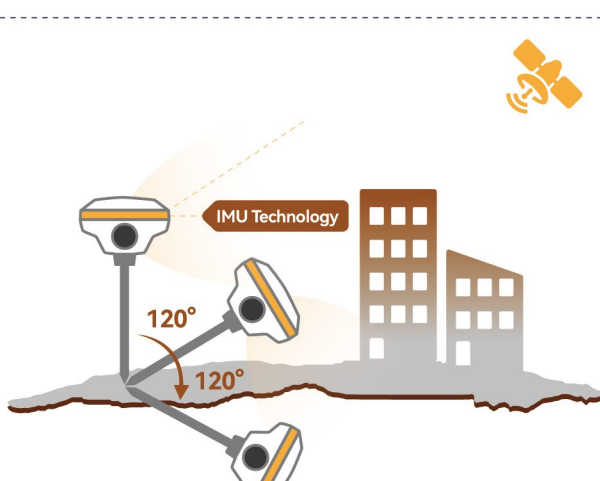
Longer Working Time

Offers a longer working time of up to 26 hours, allowing users to work for an entire day, also ensures that data is saved safely and securely without the risk of losing important information due to a dead battery.



Calibration-Free Solution

Highly equipped with 120° calibration-free IMU technology in a small body, M20 offers stability and high precision without the need for device calibration, extending the M20's application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications.



Longer Working Distance

Equipping the MeridianLink protocol internal radio offers 15km working range and increases flexibility. By eliminating the need for an external radio, the M20 becomes more lightweight, less complex, and more portable, which can lead to increased efficiency and convenience in the field.



Full Constellations

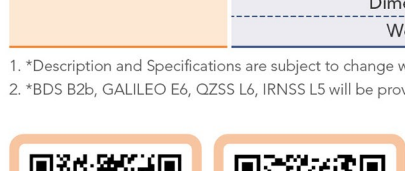
Supports BDS, GPS, GLONASS, Galileo, QZSS, and SBAS. Its 1408 channels offer comprehensive GNSS signal tracking capabilities.



Technical Specification

System	System	Linux
GNSS Signal [®]	Channel	1408
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*
	GPS	L1C/A, L1C, L2P(Y), L2C, L5
	GLONASS	L1, L2, L3*
	GALILEO	E1, E5a, E5b, E6*
	QZSS	L1C/A, L1C, L2C, L5, L6*
	SBAS	L1, L5*
	NavIC(IRNSS)*	L5
	L-band	B2b PPP (Only for the Asian-Pacific Region) & HAS*
	Data Format	CMR, CMR+, RTCM2.X, RTCM3.X
Data Output	NMEA-0183, RINEX, TXT	
Data Updating Rate	Up to 20Hz	
Time to Recapture	<1s	
Cold Start	<40s	
Positioning Performance	Single Point Positioning (RMS)	Horizontal: 1.5m Vertical: 3.0mm
	DGPS (RMS)	Horizontal: 0.4m Vertical: 0.8mm
	Real-Time Kinematic (RMS)	Horizontal: ±(8mm+1x10-6-D)
	Speed Accuracy (RMS)	Vertical: ±(15mm+1x10-6-D)
	Static Accuracy (RMS)	0.03m/s
	Time Accuracy (RMS)	Horizontal: ±(2.5mm+0.5-6-D)
	Speed Accuracy	Vertical: ±(5mm+0.5-6-D)
Tilt Compensation Accuracy	20ns	
IMU Update Frequency	≥0.03m/s	
Communication	Bluetooth	≤2cm(Tilt Angles≤60°, Up to 120°)
	WiFi	200Hz
	Cellular	V5.2 Dual Mode, 2.4GHz@+5dBm
	Storage	IEEE 802.11b/g/n
	Internal Radio	LTE FDD: B1/3/5/7/8/20 LTE TDD: B38/40/41 UMTS/HSPA+: B1/8 GSM/GPRS/EDGE: 900/1800 MHz Up to 64GB Transmitting Power: 1W (27 dBm ±1.5 dB) or 2 W (32 dBm ±1.5 dB) Frequency: 410~470MHz Protocol: SOUTH, TRIMTALK 450S, TRIMMK III, TRANSEOT, SATEL, MERIDIANLINK Air Baud Rate: 9600, 19200, 11000
Battery	Specifications	7.2V, 6600mAh lithium-ion Rechargeable Battery
	Operating Time	RTK Rover: Up to 26 hours (Typical Power Consumption) Static: Up to 30 hours (Typical Power Consumption)
	Charging	Support USB PD 15W/2A (Supports Quick Charging Adapter)
Environment	Operating Temperature	-40°C~+85°C
	Storage Temperature	-55°C~+85°C
	Anti-seismic	2m Pole Drop Onto Concrete
	Dust & Waterproof	IP68
Physical	AR Camera	5 MegaPixel, Large Viewing Angle, Supports Live View Stakeout
	I/O Interface	1x USB type-C Port; 1x SMA antenna Port; 1x SIM Card Slot; 1x 5pin LEMO Port
	Dimensions	119mm×119mm×76mm
	Weight	662g

1. *Description and Specifications are subject to change without notice.
2. *BDS B2b, GALILEO E6, QZSS L6, IRNSS L5 will be provided through future product upgrade.



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