

# Technical Specifications

## Meridian M5 GNSS RTK System

<b>Platform</b>	Hardware	Qualcomm MDM9628 Cortex-A7
	System	Linux
<b>GNSS Signal<sup>①</sup></b>	Channels	800/1408
	GPS	L1CA/L1P/L1C/L2P/L2C/L5
	GLONASS	G1/G2/G3, P1/P2
	BDS	B1i/B2i/B3i/B10C/B2A/B2B/ACEBOC
	GALILEO	E1BC/E5a/E5b/E6BC/ALTBOC
	QZSS	L1CA/L2C/L5/L1C/LEX
	SBAS	L1, L5
	IRNSS L5	L5
	L-Band	A10/A30/A50
	Data Format	CMR, CMR+, RTCM2.X, RTCM3.X
	Data output	NMEA-0183, RINEX, GNS
	Data updating rate	1Hz standard, up to 20Hz
	Time to recapture	<1s
	Cold start	<40s
	<b>Positioning Performance</b>	Single Point Positioning (RMS)
DGPS (RMS)		Horizontal: 0.4m    Vertical: 0.8m
Real Time Kinematic (RMS)		Horizontal: $\pm(8\text{mm}+1 \times 10^{-6} \cdot D)$
		Vertical: $\pm(15\text{mm}+1 \times 10^{-6} \cdot D)$
Speed accuracy (RMS)		0.03m/s
Static accuracy (RMS)		Horizontal: $\pm(2.5\text{mm}+0.5^{-6} \cdot D)$
		Vertical: $\pm(5\text{mm}+0.5^{-6} \cdot D)$
Time accuracy (RMS)		20ns
Tilt compensation accuracy (up to 60°)	≤2cm	
<b>Communication</b>	Bluetooth	V2.1+EDR/V4.0 dual mode
	WIFI	802.11 a/b/g/n/ac
	Cellular	LTE FDD: B1/B3/B5/B8    LTE TDD: B38/B39/B40/B41
		TD-SCDMA: B34/B39    CDMA: BC0
	Storage	WCDMA: B1/B8    GSM: 900/1800MHz
		Built-in 32GB
<b>Battery</b>	Specifications	Transmitting power: 1.5W
	Operating times	Frequency: 410~470MHz
		Protocol: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT
	Charging	Air Baud Rate: 9600, 19200
Specifications		3.7V, 9600mAh lithium-ion rechargeable battery
<b>Environment</b>	Operating times	RTK Rover: up to 9 hours (typical power consumption) Static: up to 11 hours (typical power consumption)
	Charging	Support MTK    PE+1.1/2.09V/1.6A
		Support USB    PD 12V/1.25A
	Support 5V/2A (support quick charging adapter)	
<b>Physical</b>	Operating temperature	-20°C~+70°C
	Storage temperature	-40°C~+85°C
	Anti-seismic	2m pole drop onto concrete
	Dust& Waterproof:	IP67
<b>Accessories</b>	Material	Magnesium-alloy casing + ABS/PC plastic top cover
	Dimensions	φ 147.9*68mm
	Weight	≤0.75kg
<b>Accessories</b>	M5 receiver	1set
	Power adapter	1piece
	USB A To Type-C cable	1piece
	Radio antenna	1piece

\*Description and Specifications are subject to change without notice.

1.Compliant, but subject to availability of IRNSS and Galileo commercial service definition. IRNSS L5 and L-Band are optional.

2.Accuracies are dependent on GNSS satellite availability.

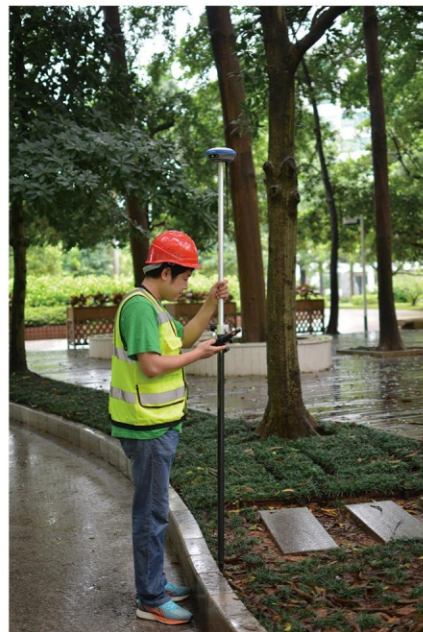


# M5 GNSS RTK System

M5 GNSS receiver is an extremely lightweight, full-featured, intelligent GNSS receiver system equipped with an integrated new-generation full-frequency antenna and advanced multi-channel RTK engine, build-in radio and 32GB internal storage, allowing users to attain accurate, reliable solutions.



Multiple constellation and frequency tracking, powerful RTK engine, calibration-free tilt compensation IMU technology makes receivers easy to get fixed solution in most demanding environments, brings you to focus on your surroundings and not the bubble to measure the points that previously could not be measured, making your stake out more efficiently and conveniently than ever before with increased speed, safety and comfort and greatly improving your working efficiency.



## Features

### Multi Constellation

M5 provides an excellent on board real time navigation solution with high accuracy. Multi Satellites signals (GPS, GLONASS, BDS, GALILEO, QZSS, SBAS, IRNSS, L-Band) are included.

### User-friendly Web UI

Through WiFi connection, users can easily configure work modes, download data, upgrade firmware and check device status via web UI.

### Enhanced 90° Tilt IMU

Equipped with calibration-free IMU, support up to 60° tilt angle within 2cm accuracy, which improves the working efficiency by more than 20%, 90° tilt angle optional.

### Powerful Battery

With 9600mah & the quick-charge capability, support you to working more than 15 hour and greatly saving your time.

### Rugged Housing

With IP67 waterproof & dustproof design and magnesium-aluminum alloy housing.