

# Meridian

# ML2 Precision

## Laser GNSS RTK

### Accurate Anytime & Anywhere

Meridian ML2 Precision Laser GNSS RTK is an innovative product that combines advanced laser technology with full constellation GNSS, IMU, and 4G integration. It is calibration-free, significantly boosting operational efficiency and laser measuring makes the rodless survey improve efficiency and reduce risk factors. This cutting-edge solution revolutionizes the way precision positioning and navigation are accomplished.



### Latest Laser Technology

Laser technology offers unparalleled advantages in precision positioning and makes surveying work rodless and Easier. Combining cutting-edge laser technology with full constellation GNSS, IMU, and 4G integration, delivers calibration-free accuracy, significantly enhancing work efficiency and reducing potential risks.



### Powerful IMU Feature

Equipped with 120° calibration-free IMU technology in a small body, complements the laser's outstanding performance, extending the ML2's application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications.



### Calibration-Free Solution

Highly integrated with laser and GNSS-IMU algorithms, our solution offers stability and high precision without the need for device calibration, enhancing customer satisfaction but also boosts operational efficiency.



### Full Constellations and Multi-frequency

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



### Rugged Design

The ML2 is specifically designed to function effectively in challenging environments and with IP67 waterproof and dustproof.



### Compact and Portable Design Easy to Carry

- It has excellent heat dispersion properties and weighs less than 270g, making it easy to carry.
- ML2 is incredibly flexible and can be carried in an armband bag, shirt pocket, or attached to a pole using a pouch.
- Provides users with multiple wearable modes, allowing them to choose the mode that best suits their needs and makes their job easier.

# Technical Specification

GNSS Signal	Channels	1408
	GPS	L1C/A, L1C, L2P(Y), L2C, L5
	GLONASS	L1, L2, L3*
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*
	GALILEO	E1, E5a, E5b, E6*
	QZSS	L1, L2, L5, L6*
	SBAS	L1, L2, L5
	NavIC(IRNSS)*	L5
	L-Band	B2b PPP (Only for the Asian-Pacific Region)
	Data Format	CMR, CMR+, RTCM2.X, RTCM3.X
Positioning Performance	Single Point Positioning (RMS)	<b>Horizontal:</b> 1.5m   <b>Vertical:</b> 2.5m
	DGPS (RMS)	<b>Horizontal:</b> 0.4m   <b>Vertical:</b> 0.8m
	Real Time Kinematic (RMS)	<b>Horizontal:</b> $\pm(8\text{mm}+1\times 10^{-6}\cdot D)$ <b>Vertical:</b> $\pm(15\text{mm}+1\times 10^{-6}\cdot D)$
	Laser Accuracy (RMS)	$\leq \pm(1\text{cm}+0.4\text{cm}/\text{m})$
	Speed Accuracy	$\geq 0.03\text{m/s}$
	Tilt Compensation Accuracy	$\leq 1.5\text{cm}$ (Tilt Angle $\leq 30^\circ$ , Up to $120^\circ$ )
	IMU Update Frequency	200Hz
Communication	Bluetooth	BluetoothV4.1
	Cellular(4G)	<b>LTE FDD:</b> B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28
		<b>LTE TDD:</b> B38/39/40/41
		<b>WCDMA:</b> B1/2/4/5/6/8/19
	Indicator	<b>GSM:</b> B2/3/5/8
		Power Indicator x1
		Bluetooth Indicator x1
Differential Data Indicator x1		
Satellite Indicator x1		
Battery	Specifications	7000 mAh lithium-ion Rechargeable Battery
	Operating Times	<b>RTK Rover:</b> Up to 12 hours (Typical Power Consumption)
Environment	Operating Temperature	-20°C~+75°C
	Storage Temperature	-40°C~+85°C
	Anti-seismic	1.6m Pole Drop Onto Concrete
	Dust & Waterproof	IP67
	Humidity	95% No Condensation
Physical	I/O Interface	Type-C& Power Button
	Dimensions	133.5mm×63mm×56mm
	Weight	$\leq 270\text{g}$



Website: [www.meridiangnss.com](http://www.meridiangnss.com)

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