Meridian MS80 Specification

System	RTK performance	0.8 cm + 1 ppm (H) I 1.5 cm + 1 ppm (V)
	Processing	Real-time processing, PPK
	Channel	1408
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*
	GPD	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
	Frequency	410-470MHz
	Channel Spacing	25kHz
	Portocol	SOUTH, TRIMTALK 450S, TRIMMK III, TRANSEOT, SATEL, MERIDIANLINK
	Air Baud Rate	9600, 19200, 11000
Software	Point Cloud Thickness	≤1cm
	Accuracy	Absolute Accuracy ≤ 5cm; Relative Accuracy ≤ 1cm
	Mobile App	Supports preview of color point clouds, Android compatibility
	Processing Software	Supports spatially correlated viewing of point clouds and panoramic photos
Environment	Robustness	Designed for indoor and outdoor use
	Operating Temperature	-10℃ to 40℃
	IP Rating	IP54
LiDAR & Imaging	Camera System	3×2 MP Global Shutter RGB Cameras
	Camera FOV	Horizontal 300° I Vertical 101°
	Laser Class	Class 1/905nm
	LiDAR FOV	Horizontal 360° I Vertical -7~52°
	Point Measurement Rate	200,000 pts/sec
	Frequency	10 hz
	Measurement Range	40m @ 10% reflectivity / 70m @ 80% reflectivity
Physical & Electrical	Weight	1.38KG
	Size	317*117mm
	Battery	3300mAh
	Input	14.4v
	Charging	Type-C, PD Fast Charge
Data Transfer	Format	.bin、.txt、.asc、.neu、.xyz、.pts、.csv、.las、.laz、.e57、.sbf、.ply、.vtk、.dxf、.pcd、.shp、.pov、.pn、.pv
	Detachable Storage	Built-in SSD 256GB
	Data Transfer	USB 3.0 Type-c
Operation	Support MagSafe stand for mobile devices. Support surveying pole connection	

* The above technical parameters are for your reference. The company reserves the right to change the design and planning of the product based on the actual product.

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Smarter • Faster • More intuitive

Meridian

MS80

Handheld LiDar Scanner



MS80 Handheld LiDar Scanner

MS80 integrates a high-precision LiDAR, three wide-angle color cameras, an WIFI module, and a 2W radio into one device. It is ready to use right out of the box, enabling a single operator to complete full-scenario scanning. Powered by a brand new point cloud algorithm, the MS80 achieves hardware level synchronization and pixel level fusion of multi-modal sensors, removing the "professional barrier" from high accuracy 3D reconstruction. It is truly lightweight, portable, precise, efficient, and delivers scan-as-you-go performance.



Hight Precision LiDAR

360° × 59° FOV, Point cloud thickness < 1 cm

Ntrip CORS + Radio Dual Module RTK System

High-precision absolute coordinates can be obtained even without a network



Brand New Processing Algorithm

The ratio of scanning to processing time can reach up to1:1

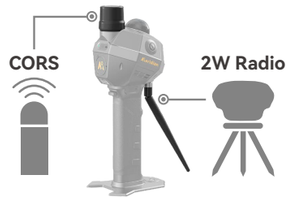
Visual-Aided Slam

Able to ensure accurate point cloud positioning even in environments with missing features

Features

Dual RTK | Reliable in Any Environment

Supporting both Ntrip CORS and 2W radio RTK working modes, the MS80 assigns precise absolute coordinates to point clouds even in highly variable scanning environments, keeping high-accuracy scanning consistently online.



Real-Time Point Cloud Preview

See exactly what you're capturing in real-time 3D on your phone while you scan. You'll immediately see any spots you missed, just scan them again right away. No missing parts, no coming back later.



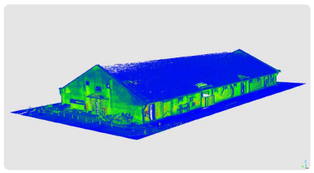
Efficiency Redefined | 1:1 Workflow

With up to 1:1 scan-to-processing ratio, MS80 improves efficiency by 60% compared to traditional solutions, significantly shortening project timelines and enabling faster data delivery.



60% Efficiency Boost

1:1 Scan ≈ Processing Time

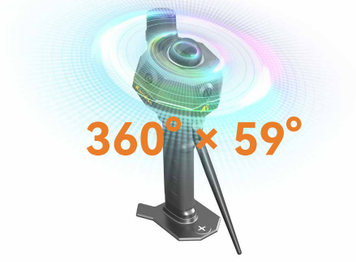


Capture More in One Scan

Triple-eye cameras deliver a 300° × 101° ultra-wide field of view, combined with a LiDAR FOV of 360° × 59°, creating panoramic-level coverage that significantly improves data acquisition efficiency and minimizes redundant scanning.







Software

Meridian Lidar GO V3.0 – Command Center in Your Palm, Details at Your Fingertips

Meridian Lidar GO V3.0 – Command center in your palm. Real-time HD full-color point clouds on your mobile, no complex setup. Scan as you walk, review as you scan – eliminate return visits.



Meridian Lidar Studio – Data Processing Center, One Step Ahead

Meridian Lidar Studio – Data processing center, one step ahead. Powered by a new algorithm tailored for MS80, it delivers a seamless one-stop workflow: from import to export, registration, noise reduction, color fusion, and coordinate transformation in one go. Ideal for indoor decoration, forestry, digital asset capture. Post-processing as simple and fast as scanning.

