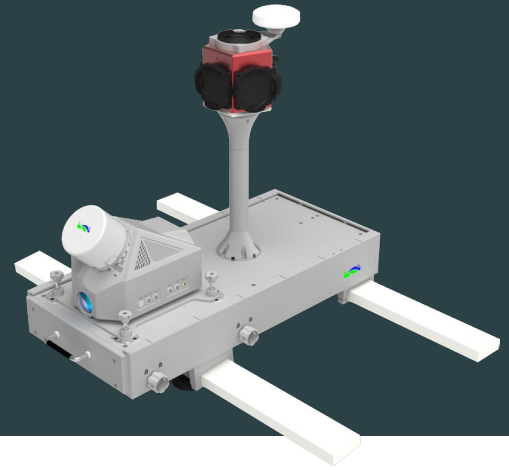


LiMOBILE M1

Mobile Laser Scanning System



The LiMobile M1 mobile laser scanning (MLS) system is equipped with a 45-degree tilted LiDAR, a high-resolution camera, and a Ladybug5+ panoramic camera, which can quickly obtain 3D data of the road and surrounding features. At the same time, it provides abundant expansion interfaces, supporting optional accessories such as the distance measurement indicator (DMI). It also supports a 2 TB pluggable hard drive, facilitating storage and copying of large data volumes. The integrated vehicle mount design allows for installation in different vehicle types. Together with LiDAR360 MLS software from GVI, it enables a one-stop data processing for the delivery of industry results.

Advantages

I Lightweight

With a lightweight compact design that significantly reduces the internal space, integrated device weighs only 12.68 kg, making it easy and convenient to install and transport quickly.

I Continuous Operation

Hot-swappable battery design for a continuous and stable power supply.

I Real-time Monitoring

Support the display of collected data and monitor the operating status of the equipment in the web interface in real-time.

I Multi-sensor

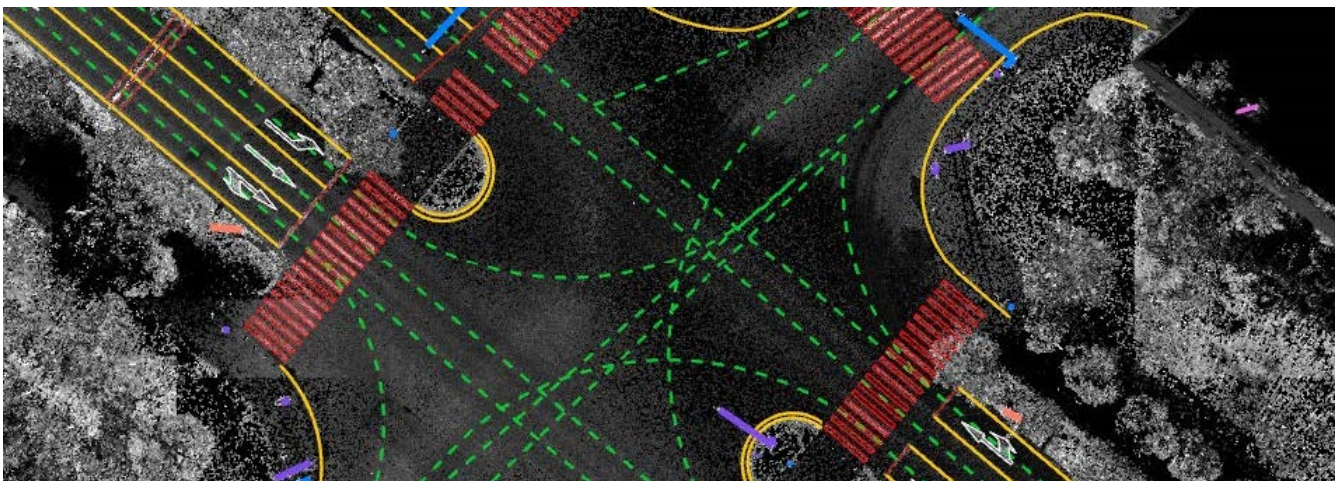
Integration of multi-channel laser, GNSS/INS integrated navigation system, and high-resolution cameras, enabling the acquisition of high-definition point cloud data and imagery data.

I Abundant Expansions

Pluggable hard drive, DMI, USB 3.0, LAN.

I Multi-industry Applications

Widely used in areas such as road asset survey, urban power distribution line analysis, urban landscaping, smart transportation, and more.



Specifications

System Specifications

Size	645 mm×289 mm×571 mm	Battery Capacity	5875 mAh×5
Data Storage	512 GB SSD + 2 TB pluggable hard drive	Weight	12.68 kg
Operating Time	≥ 4 h	Port	HDMI, USB, ODO, LAN
System Control and Data Display	Wireless mode	The tablet is connected to the WIFI of the device for operation control and data synchronization display	
	Wired mode	The tablet is connected to the device via a data cable for data transmission and control	
Applicable Environment	Outdoor	Processor	4 Cores and 8 Threads

LiDAR Specifications

Sensor Model	XT32	Range Accuracy	±1 cm
FOV (Vertical)	31° (-16° ~ +15°)	FOV (Horizontal)	360°
Scan Rate	640,000 pts/s @ Single return 1,280,000 pts/s @ Dual return	Instrument Range	0.05 to 120 m

Positioning and Orientation System Specifications

GNSS System	GPS: L1C/A, L1C, L2C, L2P, L5 GLONASS: L1C/A, L2C, L2P, L3, L5 BEIDOU: B1, B2, B3 GALILEO: E1, E5a, E5b	IMU Update Rate	Standard: 100 Hz (User selectable up to 300 Hz)		
Accelerometer	Bias In-run Stability	0.02 mg (1σ)	Gyro	Bias In-run Stability	3° /hr (1σ)
	Bias Repeatability	1 mg (1σ)		Bias Repeatability	65° /hr (1σ)
	VRW	0.02 m/s/√hr		ARW	0.15° /√hr
	Operating Range	±16 g		Operating Range	±490° /s

Wide Angle Camera Specifications

Pixels	8.9 MP	Sensor Type	CMOS
Frame Rate	13 FPS	Sensor Size	1 "
Resolution	4096×2160	Power Consumption	3.8 W

Ladybug5+ Panoramic Camera Specifications

Pixels	30 MP (5 MP x 6 sensors)	Sensor Type	CMOS
Frame Rate	30 FPS (JPEG Compressed)	Sensor Size	2/3 "
Resolution	8192×4096	Power Consumption	13 W maximum

Data Output

Relative Accuracy	≤ 3 cm ^[1]	Absolute Accuracy	10 cm@100 m ^[2]
Point Cloud Data Format	las, laz, LiData		

Software

Pre-processing Software	LiGeoreference	Post-processing Software	LiDAR360 MLS
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[1] May be affected by environmental and route planning factors. [2] The accuracy is measured on urban roads at speeds ranging from 20 km/h to 60 km/h (average speed of 40 km/h).