SPECIFICATIONS

Mobile Laser Scanning System

Ver.2025.11.18

Positioning and Orientation System

Signal Tracking	GPS, BDS, GLONASS, Galileo, QZSS, SBAS
IMU Data Frequency	100 Hz
Position Accuracy (RMS 1σ)	Horizontal: 0.01 m Roll / Pitch Accuracy (RMS 1σ): 0.01° Vertical: 0.02 m Heading Accuracy (RMS 1σ): 0.04°

LiDAR Sensor Parameters

Laser	XT32M2X
Range Accuracy	±1
FOV (Vertical)	40.3° (-20.8° to +19.5°)
FOV (Horizontal)	360°
Scan Rate	1,280,000 pts/s (Dual Return)
Detection Range	0.5 to 300 m

System Parameters

Dimensions	508.5×263×531.5 mm
Weight	14 kg
Roof Rock Dimensions	730×350×95 mm
Roof Rock Weight	17.5 kg
Operating Time	≥6 h
Port	LAN, ODO
Storage	1 TB×2
Battery Capacity	6000 mAh×6
Operating Temperature	-10 ℃ ~ 50 ℃
Waterproof and Dustproof	IP65
Power Consumption (Typical)	75 W
Power Consumption (Max)	125 W
Power Supply Input Voltage	24 V-DC
Interface Connection	Wi-Fi / Ethernet

Camera Parameters

Ladybug5+	
Pixels	30 MP (5 MP×6 Sensors)
Maximum Frame Rate	10 FPS
Image Resolution	8192×4096
Sensor Type	CMOS
Trigger Mode	Time / Distance Trigger
Power Consumption	Maximum 13 W
Ladybug6 (Optional)	
Pixels	72 MP (12 MP×6 Sensors)
Maximum Frame Rate	5 FPS
Image Resolution	12288×6144
Sensor Type	CMOS
Trigger Mode	Time / Distance Trigger
Power Consumption	Maximum 13 W
Pavement / Front (Optional)	
Pixels	24 MP (12 MP×2 Sensors)
Maximum Frame Rate	5 FPS (4096×2160) / 3 FPS (4096×3000)
Image Resolution	4096×3000
Sensor Type	CMOS
Trigger Mode	Time / Distance Trigger
Power Consumption	3.0W @ 12 VDC

Data Results

Relative Accuracy	≤2cm
Absolute Accuracy	≤5 cm
Point Cloud Data Format	LAS, LAZ, LiData

Software

Data Collection	Lidar Master
Absolute Accuracy	≤5 cm
Point Cloud Data Format	LAS, LAZ, LiData

AUTHORIZED DISTRIBUTION PARTNER

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ML300

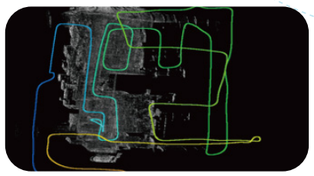
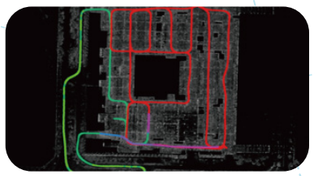
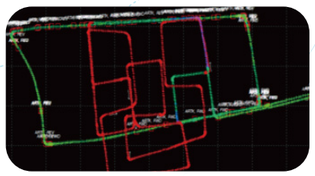
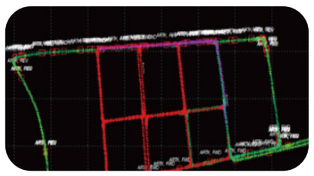
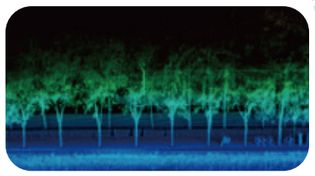
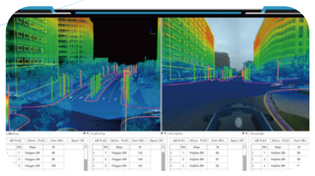
Mobile Laser Scanning System

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ML300 MOBILE LASER SCANNING SYSTEM

The ML300 affordable mobile laser scanning (MLS) system is equipped with two LiDAR sensors (one tilted at a 30-degree angle and one positioned horizontally) and a Ladybug5+ panoramic camera, enabling efficient 3D mapping of roads and surrounding environments. Even in GPS-denied areas, high-precision scanning can be achieved with the help of laser SLAM. It also provides multiple expansion interfaces and can be installed on various types of vehicles. Paired with LiDAR360MLS software, it enables a one-stop data processing to deliver industry results, supporting applications such as road asset extraction, urban power distribution line analysis, urban forestry management, smart transportation, and more.



FEATURES

EASILY HANDLES COMPLEX SCENARIOS

The system integrates GNSS, IMU, DMI, and LiDAR SLAM technologies, enabling it to effortlessly handle a wide range of complex scenarios. It can also achieve precise 3D reconstruction of real-world environments, even in areas where GNSS signals are unavailable.

HIGHLY INTEGRATED, FLEXIBLE INSTALLATION

Integrated equipment with a quick-release design allows for rapid installation and removal. Seven predefined mounting angles (0°, ±15°, ±30°, ±45°) can be flexibly selected to meet the needs of different projects.

INSTANT INSIGHT, TOTAL CONTROL

The newly designed data collection APP features a guided operational process, enabling real-time monitoring of data and location, and ensuring convenient access to all critical information.

LONG-LASTING POWER, CONTINUOUS OPERATION

It supports an external power supply, enabling efficient and uninterrupted operation.

CUSTOMIZABLE OPTIONAL SENSORS

Compatible with optional pavement camera, front camera, DMI, and other external sensors. The pavement camera focuses on the road surface for a detailed pavement analysis. The front camera captures traffic signs at high resolution. The DMI provides assistance when satellite signals are blocked or unavailable, improving system stability.

MULTI-INDUSTRY APPLICATIONS

Paired with LiDAR360MLS software, achieve one-stop result delivery. Widely applied in road asset extraction, urban power distribution line analysis, urban forestry management, smart transportation, and more.

SOFTWARE: LIDARMASTER

Real-Time Data Collection & Monitoring Accompanying App

- Interactive Guided Operation Process
- Real-time Preview of Point Cloud Data and Device Location
- Key Data Visualization and Monitoring

