

The New Benchmark in Precise
Spatial Scanning

MetaCam Lite

MetaCam Lite is a handheld scanner purpose-built for high-precision spatial scanning. Its survey-grade LiDAR module is optimized for near-field conditions. Hardware-software synergy delivers denser, finer point clouds at the source. Accuracy stays stable across complex geometries and challenging environments, with every detail captured. Scan data exports in standard formats, ready for BIM modeling and 3D design workflows.



Survey-Grade
Customized LiDAR



Smart Scan Resumption



Real-Time,
Ready-to-Use Point Clouds



Efficient Cloud-Based
Post-Processing



3D Gaussian Splatting
Reconstruction



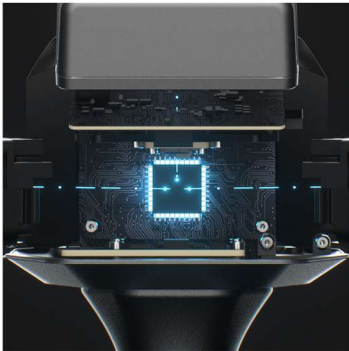
Open Data Ecosystem

TECHNICAL HIGHLIGHTS

Hardware-Software Synergy SOTA-SLAM, <1 cm Mapping Accuracy

Powered by 5,000+ deployed devices and over 1 billion m² of real-world data, deeply integrated with AI and customized LiDAR for co-optimization. Robust mapping in complex scenarios, with spatial details fully captured.





TimeSync 3.0 True Microsecond-Level Synchronization, Natively Accurate Data

Hardware-level multi-sensor synchronization achieves microsecond-precise time alignment, ensuring native data consistency at the source for reliable fusion results.



Flexible Operation, Seamless Efficiency

Smart Scan Resumption enables segmented capture and automatic stitching across large scenes, removing time and space constraints. Real-time point cloud processing delivers field-ready data for urgent on-site needs.

Single Scan, Multi-Format Delivery

A single scan produces point cloud outputs in multiple standard formats plus 3D Gaussian Splatting models, compatible with mainstream modeling, visualization, and spatial data applications.



KEY SPECS

Post-Processed Accuracy		LiDAR	
Relative Accuracy	< 1 cm	Range	0.1 to 40 m @10% reflectivity 0.1 to 70 m @80% reflectivity
Point Cloud Thickness	< 1 cm	FOV	360° (H) × 65° (V) (-20° to +45°)
Camera		Point Rate	216,000 pts/s
Sensor Resolution	12 MP × 2	Angular Resolution	Horizontal 0.15°, Vertical 0.36°
FOV	200° (H) × 200° (V) per camera	Output	
General		Point Cloud Formats	LAS / PCD / PLY
Operating Time	110 min	Image Format	JPEG
Weight	760 g		

APPLICATIONS



General

Weight	1,125 g (Main Unit: 760 g, Battery: 365 g)
Dimensions	83.7 × 85.0 × 303.4 mm (without mounting plate)
Main Unit Size	83.7 × 85.0 × 139.8 mm
Ingress Protection	IP5X
Operating Temperature	-20°C to +45°C
Storage Temperature	-20°C to +60°C
Phone Mount	Magnetic attachment

Interfaces

Wi-Fi	Wi-Fi 6, 2.4 GHz / 5 GHz dual-band, 20 m
Data Port	TF card / Type-C
USB	USB 2.0

LiDAR

Number of Units	1
Laser Class	Class 1 / 905 nm
Point Rate	216,000 pts/s
Frequency	10 Hz (typical)
Range	0.1 to 40 m @10% reflectivity, 0.1 to 70 m @80% reflectivity
FOV	360° (H) × 65° (V) (-20° to +45°)
Mounting Orientation	Horizontal

Cameras

Number of Units	2
Sensor Resolution	12 MP × 2
FOV	200° (H) × 200° (V) per camera
Sensor Size	1/2"
Shutter Type	Rolling Shutter
Output Format	JPEG

Battery

Input Voltage	9.5 to 18 V
Capacity	45.36 Wh
Operating Power	23 W
Operating Time	110 min
Charging Port	Type-C
Charging Power	PD 30 W
Charging Time	120 min

Onboard Computing

Computing Power	6 TOPS
Memory	8 GB
Storage	256 GB (expandable)

Data Processing and Output

Point Cloud Thickness	< 1 cm
Relative Accuracy	< 1 cm
Point Cloud Formats	LAS / PCD / PLY
Point Cloud Display Modes	RGB / Elevation / Intensity
Point Cloud Colorization	Real-time / Post-processing
Mapping Mode	Multi-sensor fusion SLAM
Processing Modes	Real-time / SDK post-processing

