SHARE
SLAM S10 Handheld LiDAR Scanner

SHARE SLAM S10 Handheld LiDAR Scanner User Guide

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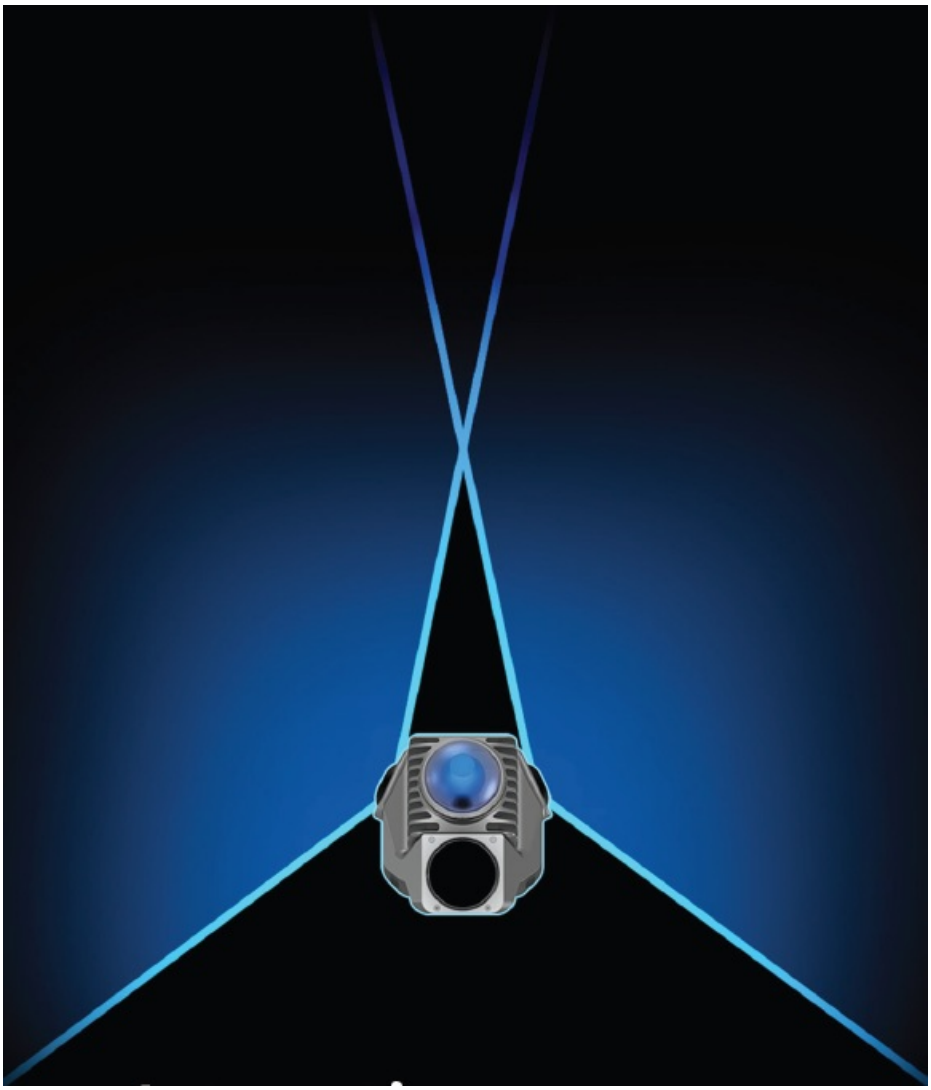
Handheld LiDAR Scanner

Using Instruction

20° Tilted LiDAR Setup
The LiDAR is angeled with a 20° tilt towards the ground, enabling comprehensive coverage of the ground, forward areas, and ceiling without manual repositioning. This setup boosts scanning efficiency, capturing all relevant areas in a single pass.

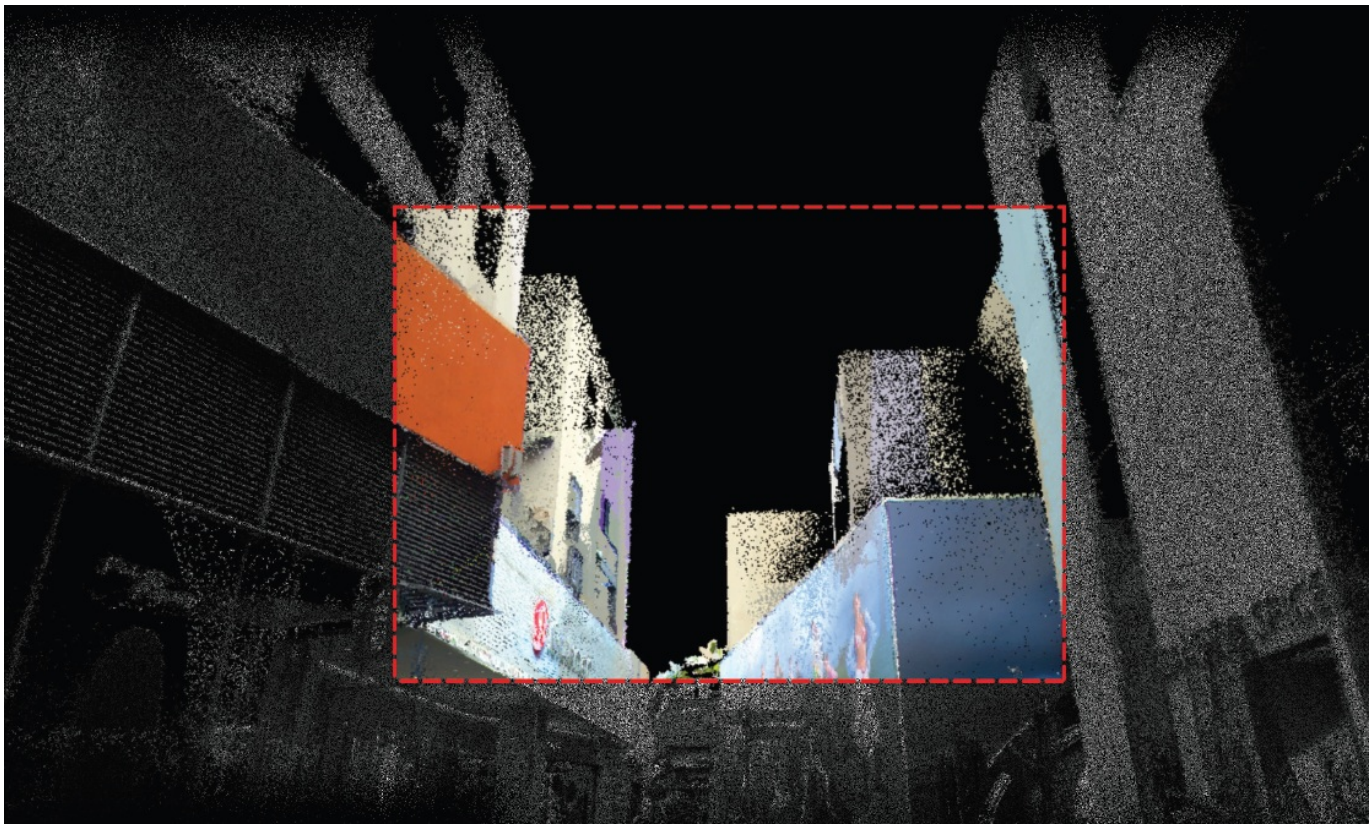
135° Dual Camera Integration
Equipped with two high-resolution wide-angle SHARE cameras arranged at a 135° angle, this configuration expands the image capture range. The integrated design of the cameras in the scanner eliminates assembly discrepancies, ensuring highly precise color rendering.



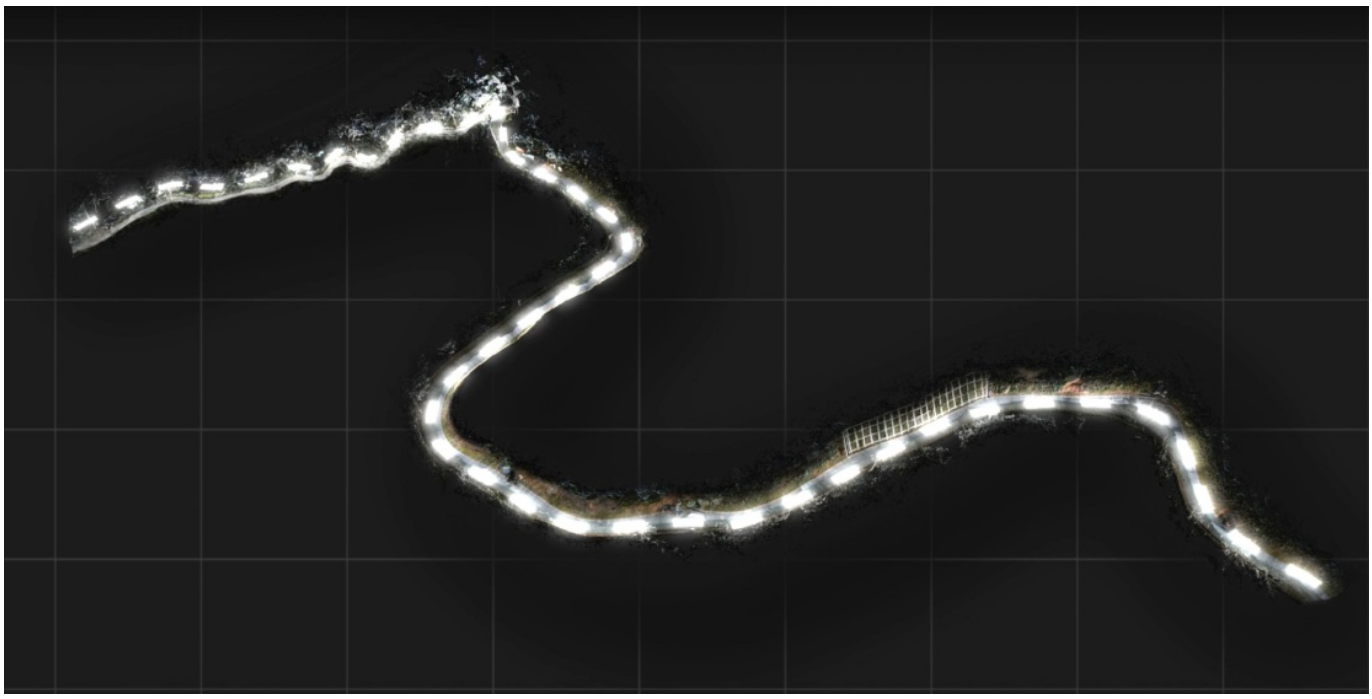
Integrated RTK Positioning Module
Comes standard with a built-in, ready-to-use RTK module that ensures microsecond-level synchronization between RTK, IMU, cameras, and other core sensors. With support for 7 satellites and 21 channels, it achieves centimeter-level positioning accuracy.

High-Precision Scanning in GPS-Denied Environments
The SHARE-SLAM-RTK algorithm continues to provide precise geographic coordinates for indoor scanning in GPS-denied environments. When returning to an area with stable RTK signals, it automatically corrects any system errors, enhancing data accuracy.

Color Point Cloud Processing and Preview in Real-Time
Featuring built-in camera, the system integrates point clouds with images captured in real-time. With a high-performance processor, it efficiently manages vast amounts of data, enabling industry-leading real-time data processing and preview.



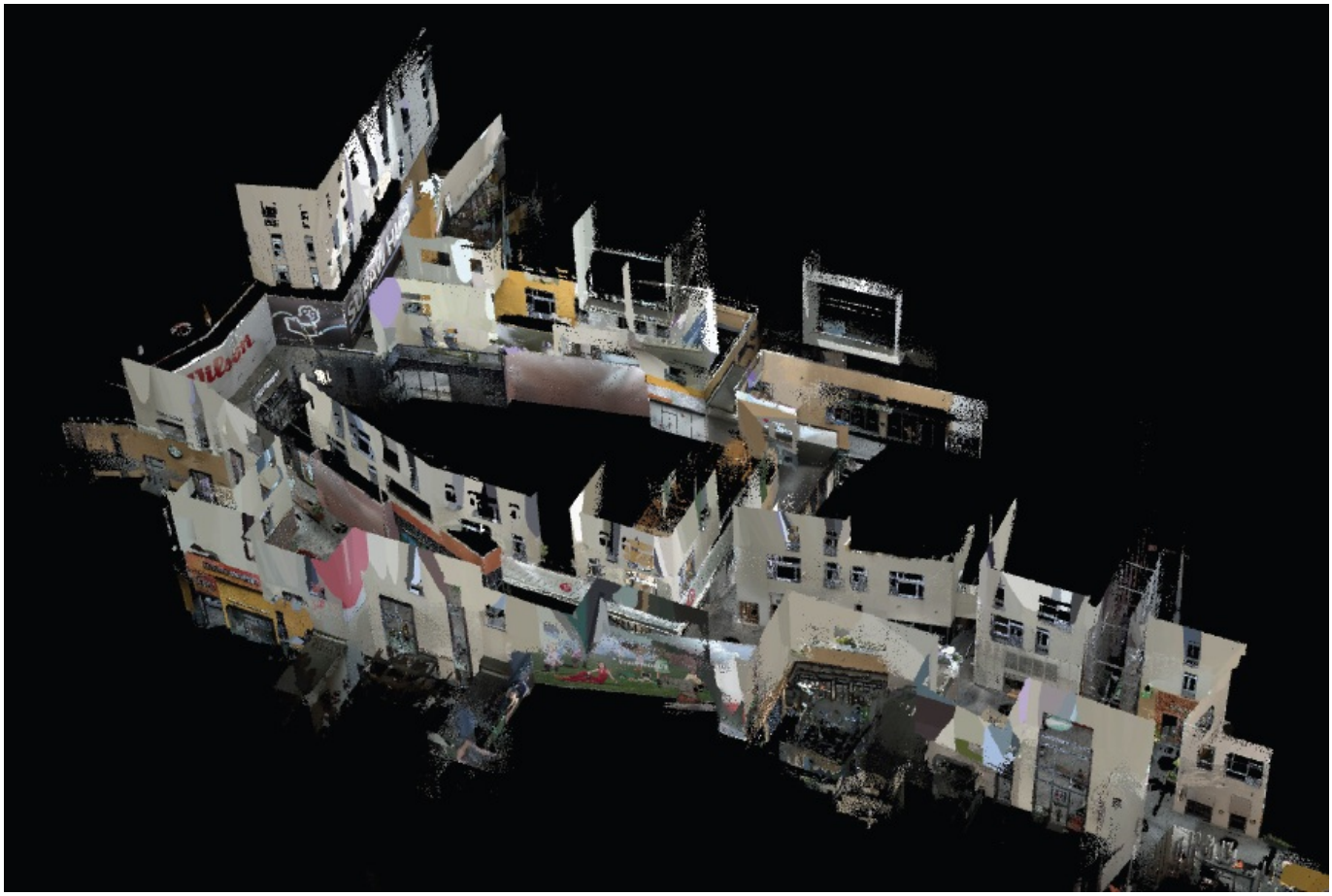
Open-loop Scanning Capability
With stable RTK signals, the self-developed fusion algorithm generates point cloud data embedded with geographic coordinates, eliminating the need for closed-loop scanning. This enables the consistent delivery of point cloud data with an absolute precision of less than 5 cm.



SHARE Mapper App
Designed for handheld devices, this mobile software supports both Android and iOS. It enables real-time, smooth previewing point clouds during operations and direct download for on-device playback.

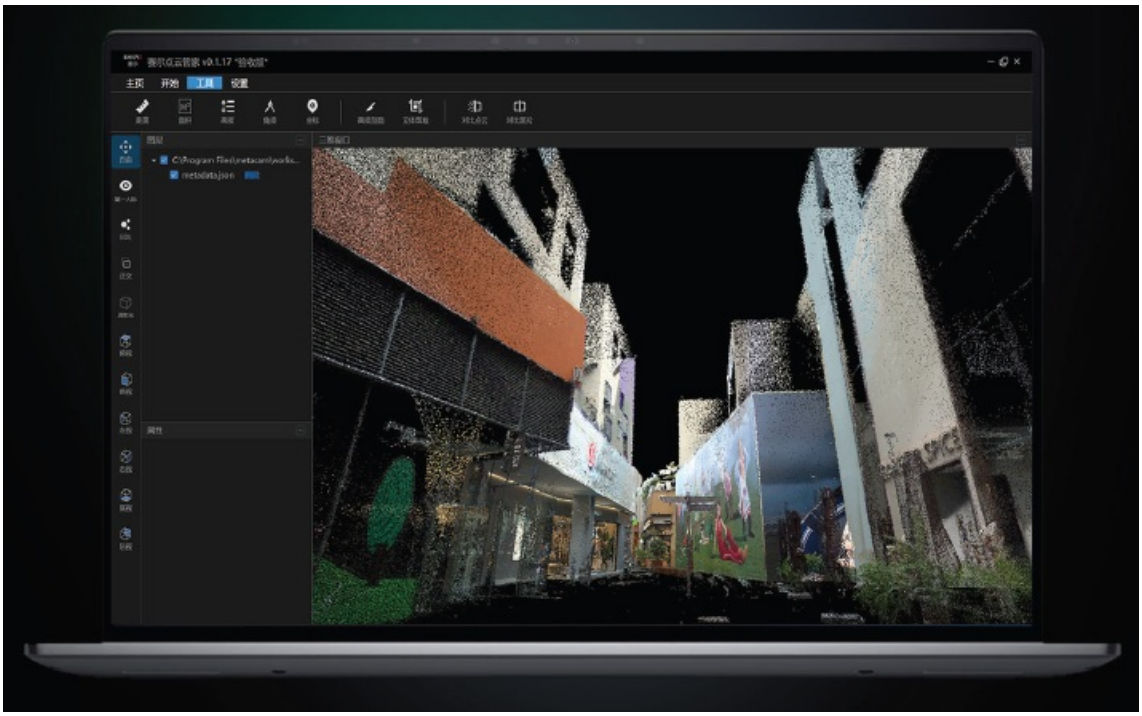
Integrated MagSafe for Single-Handed Operation
Featuring a built-in MagSafe, the device enables single-handed operation with just a simple touch. This eliminates the need to switch hands, simplifying the user experience and maintaining a poised and elegant workflow.

Microsecond-Level Time Synchronization Technology
Empowered by SHARE's imaging algorithms, point cloud-image fusion algorithms, and multi-sensor microsecond-level time synchronization technology, the system achieves superior color accuracy and more authentic color reproduction in point clouds, ensuring relative accuracy up to 1 cm.



Compatible with Apple Vision Pro for Enhanced Operations
Supporting the use of Apple Vision Pro for scanning, the system merges cutting-edge concepts with advanced measurement technologies, and opens up innovative ways to explore and interact with the metaverse.

SHARE Point Cloud Manager
SHARE's one-stop point cloud management platform streamlines the generation of color point clouds. A single click produces outcomes with processing time proportional to scan duration, supported by multiple tools and panoramic overlay.



Features Overview

Parameters

- **Dimensions**
  - **Overall:** 297.7*103.7*104.8mm
  - **Main Unit:** 133.1*104.8*103.7mm
- Protection Level IP54
- Weight 1010g
- Voltage 14.4v
- Battery Capacity 3150mAh
- Charging Port TYPE-C; PD30W fast charging
- Storage Capacity 256G (expandable)
- Operating Temperature -20°C-55°C
- Scan Rate 200,000 pts/s
- Scan Distance
  - 40m@10% reflectivity
  - 70m@80% reflectivity
- Point Cloud Thickness ≤ 1cm
- LiDAR FOV Horizontal 360°; Vertical – 7° to 52°
- Absolute Accuracy ≤ 5cm
- Relative Accuracy ≤ 1cm
- LiDAR Class Class 1
- Wavelength 905 nm
- Camera Resolution 12 megapixels X2
- Camera FOV 360°*270°
- RTK Built-in
- RTK Accuracy H: 0.8cm + 1ppm; V: 1.5cm + 1ppm
- Point Cloud Format .las, .pcd, .ply, etc.
- Processing Method Real-time pre-processing; post-processing
- Mobile App Supports preview of color point clouds, iOS and Android compatibility
- Processing Software Supports one-click output of color point clouds and panoramic overlay viewing of point clouds and images.

Authorized Distributor:

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Documents / Resources

	**SHARE SLAM S10 Handheld LiDAR Scanner** [pdf] User Guide SLAM S10 Handheld LiDAR Scanner, SLAM S10, Handheld LiDAR Scanner, LiDAR Scanner, Scanner

References

- **OTG OnTheGo Limited**
- **User Manual**