Multi-Sensor Fusion

Integrates LiDAR, IMU, camera, and GNSS chip for reliable, high-precision performance in challenging environments (low light, narrow spaces, urban canyons, etc.).

Versatile Scanning Modes

Supports backpack and extension pole kits, adapting to a wide range of environments—from urban surveying to mining exploration and beyond.

Streamlined Post-Processing Workflow

Automated stitching, denoising, and rendering ensure efficient production of high-quality point clouds.

Flexible Coordinate System Support

Supports UTM, Gauss-Krüger, and other projections for direct, project-ready data output, ensuring seamless integration with GIS/CAD workflows.

LS600 Laser Scanner

GNSS Surveying System
Ver.2025.02.20

Size(L x W x H): 240mm x 115mm x 320mm

SYSTEM PARAMETERS

Housing Material	Industrial-grade aluminum
Weight	1.9 kg[1]
Power Consumption	< 35W
Storage	512GB SSD (expandable)
Software Support	ScanMaster (mobile) / RealEditor (PC)
Wireless	WIFI, Bluetooth

LASER

Laser Class	Class 1 / 905 nm
Number of Lines	16 / 32
Field of View	360° × 270°
Range	0.5–120 m / 0.5–300 m (3 configurations)
Scan Rate	16 lines: 320,000 pts/s 32 lines: 640,000 pts/s

ENVIRONMENT

Operating Temperature	–20°C to +50°C (–4°F to 122°F)
IP Rating	IP54

CAMERA

Number of Cameras	2
Camera Resolution	48 MP × 2
FOV	190°×190°

BATTERY

Type	Li-ion battery
Voltage	14.4 V
Capacity	49.34wh
Typical Operating Time	1.5 hours

PERFORMANCE

GPS:	L1C/A, L1C, L2P, L2C, L5
BDS:	B1I, B2I, B3I, B1C, B2a, B2b
GLONASS:	L1, L2, L3
Galileo:	E1, E5a, E5b, E6c, E5 AltBOC
QZSS:	L1C/A, L2C, L5, L1C
IRNSS:	L5
SBAS:	L1C/A
Absolute Vertical/Horizontal Accuracy (RMSE) [2]	3 cm
Real-time Relative Accuracy (RMSE) [3]	2 cm
Processed Relative Accuracy (RMSE) [3]	1 cm
Repeat Accuracy (RMSE) [4]	2 cm
Point Cloud Thickness (RMSE) [5]	≤ 0.5 cm
Horizontal/Vertical Angular Accuracy [2]	≤0.05°
Processing Mode	Real-time + Post-processing
RTK Accuracy (Horizontal)	8 mm + 1 ppm (RMS)
RTK Accuracy (Vertical)	15 mm + 1 ppm (RMS)
Point Cloud Format	.las
Image Format	.jpg
TurboCloud Enhance	Supported

1. With handheld battery and GCP collection plate
2. Refers to real-time/processed data. No RTK signal loss more than 100 m
3. The distance between two points is less than 100 m
4. Two scans both with full RTK signal
5. Horizontal thickness of the point cloud within 10 m of the travel path

Note: Final delivered specifications may vary slightly based on actual production and development.

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SinoGNSS

LS600
Laser Scanner

UNLOCK NEXT-LEVEL
3D SCANNING

Features

Extended Range & High-Speed Capture

Offered in four configurations—16-line or 32-line LiDAR, each with 120m or 300m range—the LS600 delivers scan rates of 320,000 points/sec (16-line) or 640,000 points/sec (32-line), significantly boosting field efficiency.

High Accuracy & Built-in RTK Module

Powered by SinoGNSS's self-developed GNSS module, the LS600 supports high-precision, full-frequency GNSS solutions—delivering robust centimeter-level performance across diverse satellite constellations.

Dual-Lens Camera & Vivid Color

Equipped with dual 16MP wide-angle cameras (190° × 2) to capture multi-angle color data. Combined with visual-aided SLAM (V-SLAM), the system generates highly accurate, richly detailed color point clouds—delivering more realistic visualization and deeper insights.

Integrated Professional Surveying Antenna

Features a built-in, high-precision surveying-grade antenna with superior signal acquisition, ensuring robust performance. LS600 supports connection to a pole for professional SLAM and RTK surveying.

Introduction

The LS600 is a next-generation handheld 3D laser scanner that seamlessly combines advanced SLAM technology, a built-in RTK module for centimeter-level accuracy, and dual wide-angle cameras for vivid color capture. Through multi-sensor fusion (LiDAR, IMU, and camera), the LS600 achieves robust performance in both indoor and outdoor environments—delivering high-speed scanning, richly detailed color point clouds, and streamlined post-processing. Its lightweight, all-in-one design ensures efficiency and reliability across diverse industries, from surveying and urban renewal to mining and emergency response.

Excellent Performance

Visual SLAM

Third-generation Mapping System

Anchor Point Process

Real-time point cloud

Excellent Platform Compatibility

Extreme Conditions Ready

Application

LAND SURVEY

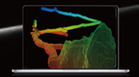
Boundary mapping and topographic data collection- Quick, large-area coverage with high accuracy

ENGINEERING SURVEY

Construction site monitoring and progress tracking- Precise data for design and structural analysis

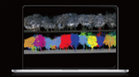
URBAN RENEWAL

3D modeling for infrastructure upgrades and city planning- Reduced disruption and faster modernization



MINING SURVEY

Pit volume calculations and slope stability monitoring- Improved resource management and operational safety



AGRICULTURE & FORESTRY

Crop health analysis and forest resource evaluation- Enhanced planning for yield optimization and sustainability

EMERGENCY SURVEY

Disaster area mapping for rapid assessment- Facilitates search and rescue operations with better resource allocation

ComNav RealEditor (PC-Based)

Powerful, User-Friendly 3D Post-Processing Software

ComNav RealEditor is a next-generation 3D data processing platform designed to work seamlessly with LS-series handheld laser scanners . It provides advanced SLAM optimization, coordinate transformations, and an array of editing tools—helping you generate high-quality point clouds, perform industry-specific analyses, and easily export results for further use.

Key Advantages

1.Comprehensive Coordinate Transformations

RTK & Control Points: Supports multiple satellite constellations, enabling absolute coordinate conversion via GNSS or control points.

2.One-Click Denoising & Merging

Quickly clean raw scans and fuse multiple point clouds into a single dataset.
Batch Processing: Add multiple scanning projects to a queue for automated, sequential processing.

3.Mesh Modeling & Stockpile Measurement

Transform point clouds into 3D meshes for CAD/CAM workflows or 3D printing.
Easily perform volume calculations for mining, construction, or material stockpile monitoring.

4.Multi-Format Import & Export

Reads and writes LAS, LAZ, PLY, E57, and more.
Flexible data exchange ensures interoperability with various industry platforms.

5.Camera Coloring & Enhanced Visualization

Support for internal dual-lens to colorize point clouds with realistic detail.
EDL (Eye Dome Lighting) mode sharpens edges and enhances object contours for improved clarity.

6.Robust SLAM Optimization

Dynamic Object Removal: Minimize moving-vehicle or passerby noise in crowded scenes.
Robust Mode: Stabilize scanning results in environments with poor GNSS signals or minimal feature points.

7.Easy Data Management & User Interface

Right-Click Context Menus for quick file operations, plus multi-window display and intuitive toolbars.
Multi-Language support and modern UI design lower the learning curve.

8.Automatic Software & Firmware Updates

Online Update: Check for new features, bug fixes, and plug-in improvements directly in the software.

ScanMaster (Android)

- Simple Operation
- Real-Time Preview
- Intelligent Management

Android

Key Features:

Multiple Connection Modes

Choose between Direct Mode or Bridge Mode based on your field conditions. Easily pair via Bluetooth and configure hotspots.

One-Click Scanning & Control

Start and stop scans or power the device on/off directly from your phone—no extra hardware required.

Real-Time Status & Quality Checks

Instantly view battery levels, GNSS/RTK signal quality, and tilt warnings to ensure complete, accurate coverage.

On-the-Fly Control Point & Measurement Logging

Mark control points mid-scan for enhanced post-processing accuracy; record indoor or outdoor coordinates with ease.

Flexible RTK Configurations

Log in with built-in or custom RTK service accounts; easily switch between Survey RTK and Standard RTK for centimeter-level positioning.

Project Management & File Naming

Assign custom project names before scanning; auto-generate time-stamped folders for fast data organization.

Convenient Data Transfer

After scanning, connect via USB-C "U-disk Mode" to copy project files—streamlining your field-to-office workflow.

Firmware Upgrades & Maintenance

Check for and install firmware updates right from your phone; monitor device health to reduce downtime.