SPECIFICATION

System Performance	Weight	1.3 kg
	System Accuracy	5 cm @ 300 m[1]
	Dimension	180 × 116.5 × 87.2 mm (incl. quick-release interface)
	Ingress Protection	IP64
	Power Consumption	40 W
Scanner Sensor	Laser Range	2150 m[2]
	Laser Wavelength	1535nm
	Ranging Accuracy	15 mm / 5 mm @ 150 m[3]
	Line Scan Rate	450 beams/sec
	Scan Frequency	2000 kHz max.
	Scan FOV	100° downward
	Echo Returns	16 returns[4]
	Multi-period	7 returns
	Laser Class	Class1, (IEC 60825-1:2014), eye-safe
POS	Refesh Rate	500 Hz
	Angular Accuracy	Roll/Pitch: 0.006°; Heading: 0.015° (Post-Processed)
	Positional Accuracy	H.:0.01m; V.:0.015m (Post-Processed)
RGB Camera	Option	2 Models
	Resolution	45 MP / 26 MP
	Focal Length	18 mm / 16 mm
	Sensor Size	36 × 24 mm / 23.5 × 15.6 mm
	FOV	90° / 73°
	GSD	4.9cm / 4.7cm @ 200m

[1] Test Environment: 100 klx background light, FOV center, atmospheric visibility of 23 km. Planar target larger than laser beam diameter with perpendicular laser incidence. Contact technical support or authorized service providers for maximum range verification.
[2] Detection Range Definition: Distance at which 50% of emitted laser pulse energy can be captured. Simultaneous multi-target irradiation disperses pulse energy and reduces effective detection range.
[3] Specifications are met under controlled conditions: 25℃ ambient temperature, 500 KHz LiDAR point frequency, 80% target reflectivity, detection distances of 120 m and 400 m. Values are for reference only; engineering work shall adopt field measurement results.
[4] Valid echo quantity depends on site environment; max. 16 echoes. Point cloud processing requires SouthLidarPro software.
All technical parameters herein are theoretical or laboratory test values. Actual results may differ due to hardware differences, firmware, operation plans and meteorology. Specifications shall be subject to physical device measurements. Consult suppliers about the target model and firmware before purchase.



(V.202610)

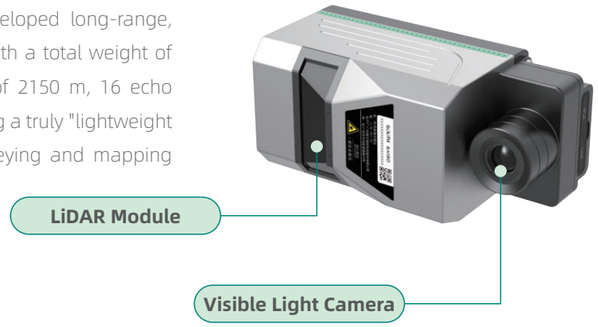
SOUTH
Target your success

SOUTH SURVEYING & MAPPING TECHNOLOGY CO., LTD.
Add: South Geo-information Industrial Park, No.39 Si Cheng Rd, Guangzhou, China
Tel: +86-20-23380888 Fax: +86-20-23380800
E-mail: mail@southsurvey.com export@southsurvey.com
http://www.southinstrument.com

SOUTH
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ILLUSTRATION

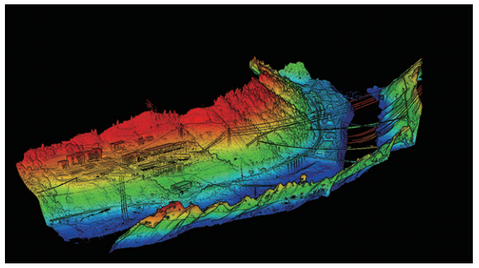
The SA130 Pro airborne LiDAR is a self-developed long-range, high-precision, lightweight airborne LiDAR. With a total weight of only 1.3 kg, it delivers an ultra-long-range of 2150 m, 16 echo returns, and an ultra-wide 100° FOV — bringing a truly "lightweight and easy-to-carry" new solution to the surveying and mapping industry.



Highlights

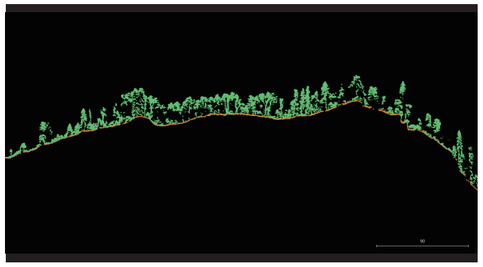
2150 m Ultra-Long Range, Unlimited Operation

With a maximum laser range of up to 2150 m and a typical operating distance of 200-300 m, whether over rugged mountains or vast plains, a single takeoff and landing covers a wider area, significantly reducing flight frequency and greatly improving large-scale surveying efficiency!



Ultra-Strong Penetration, Revealing the True Picture

With a maximum of 16 echo returns, a single laser beam penetrates dense vegetation canopies and captures multi-layer ground object information. The ultra-high laser energy ensures worry-free data acquisition in complex terrains (dense forests, shrubs).



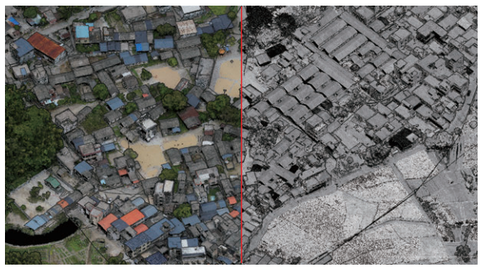
100° Ultra-Wide FOV, Higher Efficiency

With a maximum FOV of up to 100°, a single flight covers a wider area, significantly reducing route planning time and the number of flights. At the same overlap rate, efficiency is improved by 50% compared to similar products in the industry.



Integrated LiDAR and Camera, Direct True-Color Point Cloud Output

Equipped with a standard 6 MP orthophoto camera, integrated seamlessly with the LiDAR. No repeated calibration required — synchronously acquires LiDAR point cloud and image data to directly generate high-precision true-color point clouds. The results are more intuitive and easier to apply!

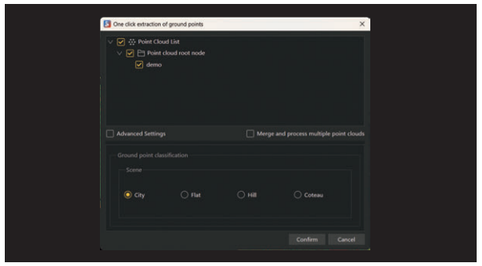


Software

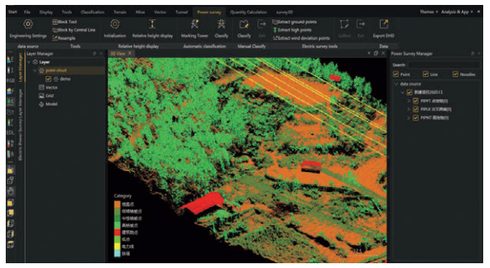
Comes standard with AcuteLas Studio laser point cloud processing software, featuring full-chain processing capabilities from multi-source data input to industry-specific output , efficiently enabling intelligent preprocessing of airborne mobile mapping system data and generating high-quality colorized point cloud results. It also includes laser point cloud data processing modules and application analysis modules, such as point cloud classification, power line surveying, DEM contour line generation, and more.



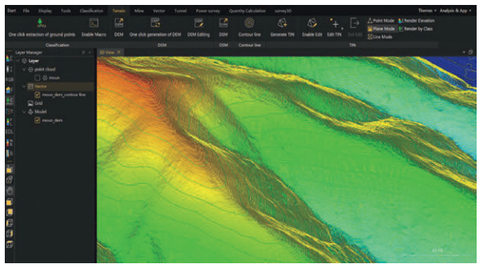
One-Click Processing



One-Click Ground Point Extraction



Power Line Surveying



One-Click Contour Line and DEM Generation

Drone Platform

It is recommended to carry the self-developed SF1200 long-endurance UAV, with a tested single-sortie endurance of up to 70 minutes (level flight), capable of collecting data over approximately 10 km^2 per sortie.

It can also carry the DJI Matrice 400, with a tested single-sortie endurance of approximately 40 minutes (level flight), capable of collecting data over approximately 6 km^2 per sortie.



SF1200 UAV:
Tested single-sortie endurance of up to 70 mins



DJI Matrice 400 UAV:
Tested single-sortie endurance of up to 40 mins