Specification

Device type	SPL-1500	SPL-500	SPL-500E
Type	pulsed precise scan technology		
Color	Grey	Grey	White
Scanning Range	1.5 ~ 1500 m (100% reflectivity on white)	1.5 ~ 620m (100% reflectivity on white)	1.5~370m (100% reflectivity on white)
Scanning Accuracy	3 mm @ 100 m	5 mm @ 100 m	5 mm @ 100 m
Scan Rate	2,000,000 pts/sec	1,200,000 pts/sec	500,000 pts/sec
Angular Accuracy	0.001°（H./V.）		
Scanning FOV	360° (H.) & 300° (V.)		
Laser Class	Class1 eye-safe (in accordance with IEC 60825-1:2014)		
Laser Wavelength	1550 nm, invisible		
Laser Beam Divergence	0.3 mrad (1/e)		
Interface	USB 3.0, external power supply, Ethernet		
Data Storage	USB 3.0 flash drive 128 GB (as default)		
Imaging Resolution	inbuilt（24.6 MP in total, 2 x 12.3 MP）		
Scanning Control	on-board 5-inch HDR (720x1280) color touch display or web interface remote control on tablet/smartphone		
Dual-axis Compensator	compensating range±15°; compensating accuracy 0.008°	compensating range±10°	compensating range±10°
Sensor	integrated, height relative (to a fixed point) to detect	altimeter	N/A
	on board	IMU Inertial navigation System	on board
	integrated, orientation to detect	compass	N/A
	integrated tracking GPS(L1)& Beidou(B1) dual-constellation	GNSS	N/A
Power Supply	rechargeable battery (as default); external supply by 19V DC		
Power Consumption	25 W (while scanning)		
Battery Endurance	max. 4 h per unit (one unit needed for operation only)		
Operating Temperature	-20°C ~ +60°C		
Storage Temperature	-35°C ~ +70°C		
Humidity Resistance	non-condensing		
Ingress Protection	IP64 (in accordance with IEC 60529)	IP54 (in accordance with IEC 60529)	IP54 (in accordance with IEC 60529)
Net Weight	6 kg (without battery); 6.45 kg (with battery)		
Dimension	247x107x202mm		

Configuration

No.	Item	Description	Quantity
		standard configuration	
1	3D Laser Scanner Unit	model: SPL-500	1
2	Lens Protective Cover		1
3	USB Flash Drive	USB 3.1, 256 GB	1
4	Rechargeable Battery	28.8 V, 3400 mAh, 97.92 Wh	2
5	Battery Charger		1
6	Charger Adapter		1
7	Carrying Case		1
8	Lightweight Tripod	packed with a soft bag	1
9	Software Dongle Key	for post-processing AcuteLas Studio	1
		optional accessories	
10	scanner sphere	6 nos. as one set, packed in a separate case ready to place in front and behind both	6
11	Backpack		1

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SOUTH SURVEYING & MAPPING TECHNOLOGY CO., LTD.
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E-mail: mail@southsurvey.com export@southsurvey.com
http://www.southinstrument.com

SOUTH
Target your success

AcuteLas Series

SPL-1500/SPL-500/SPL-500E

Highly cost-effective high precision 3D laser scanner

(V. 202309)

Features

inbuilt GNSS module
GPS L1 + Beidou B1 tracking

angular accuracy
horizontal 0.001°, vertical 0.001°

scan FOV
horizontal 360°, vertical 300°

inbuilt camera
2 lens, 24.6 MP in total

amazing point rate
up to 2,000,000 pts/sec

multi-target detection
higher point density, suited to complex scenes

long measuring range
up to 1500 m

automatic leveling
easy and efficient setup

dual-axis compensator
range ±10°; accuracy ±0.008°

data storage
USB flash drive 256 GB

Wi-Fi access
tablet, smartphone or laptop

data communication
flash drive & USB 3.0 interfaces

battery endurance
4 hours, hand-carry by airplane

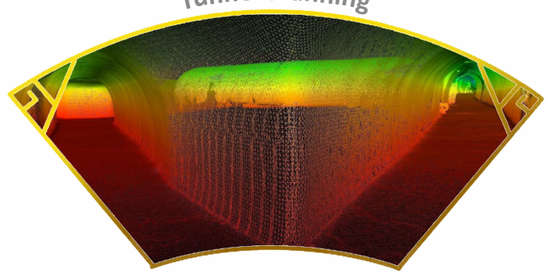
compact and lightweight
6kg only, goes with portable tripod

Applications

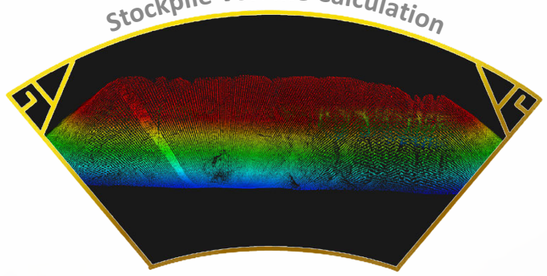
Archeology

Building Elevational Surveying

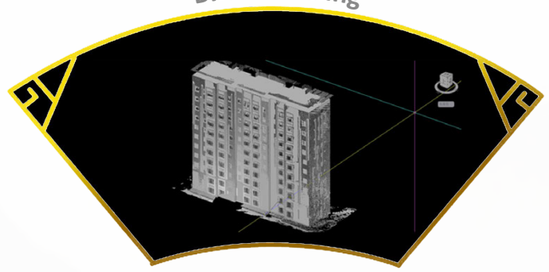
Tunnel scanning



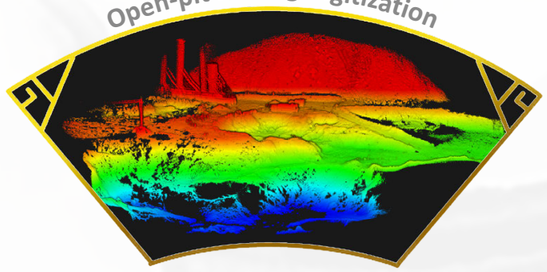
Stockpile Volume Calculation



BIM Modeling



Open-pit Mining Digitization



Software

Post-processing software-AcuteLas Studio

pointcloud generation → TLS / MMS

point cloud application → classification, etc.

point cloud vectorized → vector map production

- Data Pre-process
- Point Cloud Classification
- Lasergrammetric Vectorized Mapping
- Building Elevational Drawing
- Volume Calculation
- Sectional Data Extraction
- Underground Structure Calculation
- Auto Global Registration (las/e57/xyz)
- Point Cloud Correction

Note: *the grey-box parts above are functional add-ins*