



# GS-100E

UAV Lidar Scanning System GS-100E  
With Integrated Multispectral Camera

**LIDAR**

Self Developed  
**POS**

Trajectory One key  
**solution**

Multispectral  
**Camera**

RGB and  
**NDVI**



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# GS-100E

## UAV Lidar Scanning System GS-100E With Integrated Multispectral Camera

**Highly**  
Integrated

**High**  
Precision

**450m**  
Ranging

**High**  
Efficiency

**Multi**  
Platforms

**Easy**  
Operation

GS-100E LiDAR scanning system is a UAV measurement system independently developed by Geosunavigation. It highly integrates laser scanner, GNSS satellite positioning system, INS inertial navigation system and multispectral camera, to meet the needs of different industries such as agricultural condition monitoring, water-saving irrigation, resource survey, water quality monitoring, river ecology, disaster level monitoring, target identification, aerial work, regional mapping, etc., especially in the field of agricultural surveys.

### System Parameter

Accuracy	≤10cm@110m	Dimension	128*115*110mm
Weight	< 1.75kg	Storage	64 GB Max support 128GB TF card
Working Temperature	-20° ~ +55°	Carrying Platform	Multi Rotor/VTOL

### Laser Unit

Measuring Range	190m@10%	FOV	70° the circular view
Laser Class	905nm Class1 (IEC 60825-1:2014)	Range Accuracy (1σ @ 20m)	2cm
Laser Line Number	Equivalent to 64-beam	Data	Triple echo, 720,000 Points/Sec

### POS Unit

Update Frequency	200HZ	Position Accuracy	≤0.05m
Pitch /Roll Accuracy	0.015°	GNSS Signal Type	GPS L1/L2/L5, GLONASS L1/L2 BDS B1/B2/B3, GAL E1/E5a/E5b
Heading Accuracy	0.040°		

### Pre-Processing Software

POS (Trajectory) Software	Shuttle	Point Cloud Software	gAirHawk
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## Multispectral Camera

FOV	HFOV: 48° VFOV: 37°
NIR FOV	HFOV: 57° VFOV: 44°
Focal Length (mm)	5.2
Resolution	2064*1544
NIR Resolution	160*120
Ground Pixel Resolution	GSD: 5.2 cm/pix, AGL:120 M



## Operation Efficiency Table

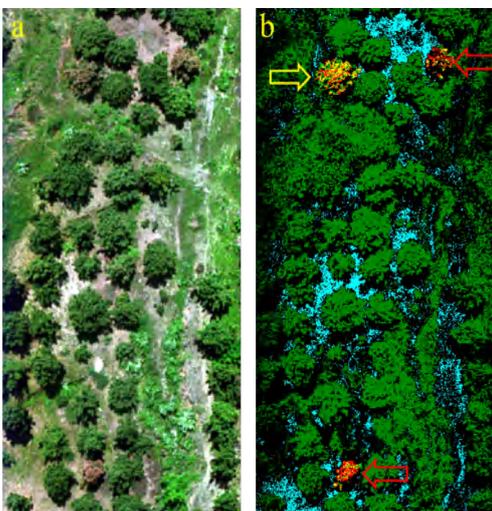
Flight Height (m)	Accuracy	Single Flight Operation(km <sup>2</sup> )
50	≤5cm	0.88
70	≤7cm	1.28
110	≤10cm	1.92

## Mission Planning Software (optional)

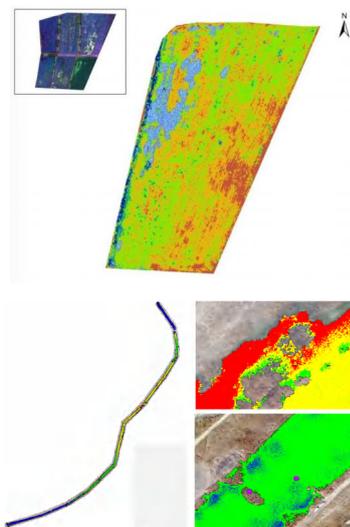
Mission Planning Software	Customized Route Planning Software – WayPoint Master
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## Application Case

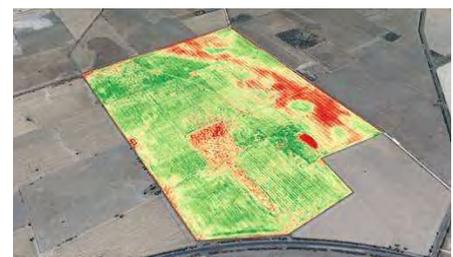
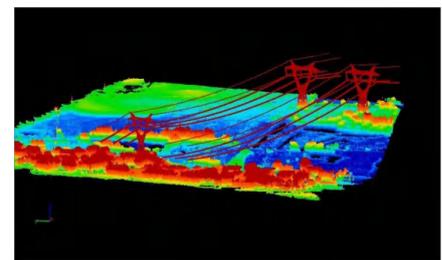
Forestry Survey



Agricultural Monitoring



Power line Patrol



Water Quality Monitoring

Disaster Assessment