

Apus-MX

UAV LiDAR



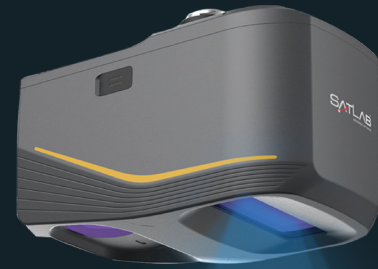
Made by Sweden

Apus-MX UAV LiDAR

Apus series new member

As the latest addition to the Apus series, the Apus-MX UAV LiDAR has undergone a comprehensive upgrade, bringing revolutionary aerial surveying precision and efficiency.

Whether it's complex terrains or urban environments with significant variations in structural heights, the Apus-MX ensures high productivity and saves valuable time. This ultra-portable system integrates powerful long-range laser scanner, an advanced IMU, and an industrial-grade RGB orthographic camera, providing unparalleled accuracy.



80°
field of view



1200 m
laser range



Up to 8
returns



550,000 points
per second



260 scans
per second



1.55kg
weight

Features

Higher flight height, wider coverage

With 80° FOV and maximum 1200 m measurement range, this powerful system is able to be flown at higher altitudes to ensure comprehensive coverage and increased efficiency by scanning more expansive areas in fewer flights. Save operational costs with reduced flight times and improve safety and reliability with better obstacle detection in difficult-to-access or hazardous areas.

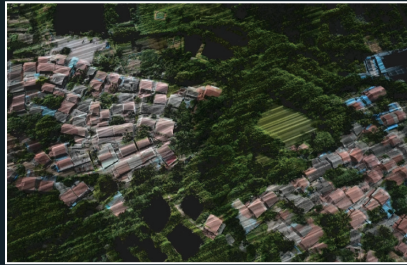


Increased vegetation infiltration

With up to 8 returns, Apus-MX effortlessly penetrates dense vegetation to capture ground point clouds more efficiently. These point clouds enable the creation of highly accurate digital elevation models (DEM) and digital surface models (DSM), perfectly tailored for forestry surveying and various other applications.

Orthographic RGB Camera Integration

Equipped with a 45 MP orthographic RGB camera, Apus-MX generates high-resolution images and acquires high-quality color point clouds for efficient 3D model reconstruction and digital ortho mosaic.



Software

Sat-LiDAR

Point Cloud Post-Processing Software

Sat-LiDAR is designed to offer a comprehensive and user-friendly solution for managing and processing Apus series LiDAR point cloud data, ensuring high precision and quality in your projects.



Simple Workflow

Apus-MX collaborates seamlessly with Sat-Air for flight parameter configuration and device status monitoring. Meanwhile, the Sat-LiDAR software streamlines trajectory calculation, data fusion, point cloud optimization, and accuracy validation, offering effortless export of color point clouds, DEMs, and contour lines.



Applications



**Surveying
and
Mapping**



**Road
and
Power Patrol**



**Mining
and
Quarrying**



**Historic
Preservation**



**Emergency
and
Disaster**



**Construction
and
Engineering**

Flight Parameters

Pulse-repetition frequency (PRF)	100 kHz	300 kHz	550 kHz
Max. measuring range@ρ> 15%	600 m	420 m	220 m
Max. measuring range@ρ> 60%	1200 m	720 m	420 m
Max. operating flight altitude AGL	424 m	297 m	155 m

Technical Specifications

LiDAR Unit	System accuracy	H: 5 cm@300 m V: 5 cm@300 m	Camera Unit	Effective pixel	45 MP
	Range accuracy	1.5 cm/0.5 cm@150 m		Focal length	18 mm
	Measuring range	1200 m@60% ref.		Sensor size	36 x 24 mm (8192*5468)
	Field of view	80°		Minimum photo intervals	1 s
	Returns	Up to 8		Field of view	90.0°*67.4°
POS Unit	GNSS	GPS: L1, L2, L5 GLONASS: L1, L2 BEIDOU: B1, B2, B3 GALILEO: E1, E5a, E5b	System	Weight	1.55 kg
	IMU frequency	500 Hz		Temperature range	-20°C ~ +50°C (operation) -20°C ~ +65°C (storage)
	Position accuracy (pp)	0.01 m RMS horizontal 0.02 m RMS vertical		IP Rating	IP64
	Attitude accuracy (pp)	0.019° Heading 0.006° Roll/Pitch		Data storage	SSD 1
				Data transmission mode	Type-C, up to 160 M/S
				Mounting interface	DJI skyport
				Manipulation	DJI Matrice 300/350/400