



YellowScan Mapper.

The next-generation of integrated UAV LiDAR solution

YellowScan Mapper is the next generation of integrated lidar solution.

Its low weight, mid-range capability, top-end point density and advanced accuracy and precision, makes it the best value for money in our portfolio.

It is dedicated to UAV borne mapping applications.



Technologies inside

applanix LIVOX



Key differentiators

- ▶ High point density
- ▶ Compact
- ▶ Advanced point cloud precision



UAV Integrations

- ▶ Single rotor UAV
- ▶ Multirotor UAV
- ▶ VTOL UAV

Technical specifications.

▶ Mapper LiDAR system

Laser scanner	Livox Horizon	Max. data generated ⁽⁴⁾	480 000 points/sec
GNSS inertial solution	Applanix APX-15 UAV	Echoes per shot	Up to 2
Precision ⁽¹⁾⁽³⁾	4 cm	Shots per second	Up to 240 000
Accuracy ⁽²⁾⁽³⁾	4 cm	Scanning frequency	Up to 10 Hz
Typ. flight speed	10 m/s	RGB camera	Optional
Typ. flying height	60 m	Weight	1.3 kg (2.9 lbs) batt. excl.
Max. rec. flying height	70 m	Size	L 143 x W 98 x H 149 mm
Point density	230 pts/sqm @ 60 m AGL 10 m/s	Autonomy	1 hour typ.
Laser range	Up to 130 m	Power consumption	19 W
Laser wavelength	905 nm	Operating temperature	-10 to +40 °C
Scanner field-of-view	81.7 ° x 25.1 °		

(1) Precision, also called reproducibility or repeatability, accounts for the variation in successive measurements taken on the same target.

(2) Accuracy is the degree of conformity of a measured position to its actual (true) value.

(3) One σ @ 50 m, nadir.

(4) Theoretical maximum of points with all shots yielding the maximum number of echoes. May vary depending on flight and survey conditions, and surveyed environment.

▶ Optional camera module

Sensor	APS-C Type Exmor CMOS	Depth	106 mm
Resolution	19.8 Mpx	Weight	0.3 kg (0.6 lbs) with camera lens
Lens	Sony E 16mm F2.8	Power	Powered by Mapper
Width	87 mm	Power consumption	2.2 W
Height	78 mm		

Add-ons.

+ Optional:

- ▶ YellowScan LiveStation: the real-time in-flight LiDAR monitoring kit (*includes software & 2 radio-modems*)
- ▶ CloudStation Pro: refine and improve your data quality, with more export options
- ▶ Warranty and technical support extensions
- ▶ Stand-alone mounting bracket for DJI M600/300
- ▶ Stand-alone mounting bracket for DJI M210
- ▶ DJI skyport or Gremsy quick release adapters
- ▶ Single-camera module (RGB)

Package includes.

✓ Hardware:

- ▶ YellowScan Mapper
- ▶ DJI Skyport adapter for M300 / M200
- ▶ 2 Batteries
- ▶ GNSS antenna and cable
- ▶ 2 USB flash drives
- ▶ Rugged backpack

✓ Services:

- ▶ 1-year unlimited technical support
- ▶ 1-year warranty
- ▶ In-person or online training
- ▶ Camera & boresight calibration certificate

✓ Software:

- ▶ Applanix POSPac UAV, to process GNSS and inertial data for highest accuracy
- ▶ YellowScan CloudStation Essential to generate, visualize, inspect, and export your data.

