



YellowScan Surveyor Ultra OEM.

Lightweight 360° LiDAR System for UAV integration

The YellowScan Surveyor Ultra OEM marks a new generation of OEM LiDAR systems integrating SBG Systems' IMU, combined with an integrated 8 MP RGB camera for colorization purposes.

Combining light weight and high density, it is ideal for integration in VTOL UAV.



Technologies inside



Key differentiators

- ▶ 360° Surveying & Mapping
- ▶ Easy to use and process
- ▶ Safe operational range



Integrations

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

Technical specifications.

Laser scanner	Hesai XT32M2X
GNSS inertial solution	SBG Quanta Micro
Precision ⁽¹⁾⁽³⁾	3 cm
Accuracy ⁽²⁾⁽³⁾	2.5 cm
Typ. flight speed	18 m/s
Typ. flying height	100 m
Max. rec. flying height	120 m
Point density	34 pts/sqm @ 100 m AGL 18 m/s
Laser range	Up to 300 m
Laser wavelength	905 nm
Scanner field-of-view	360° x 40.3°
Max. data generated ⁽⁴⁾	1 920 000 points/sec

Echoes per shot	Up to 3
Shots per second	Up to 640 000
Scanning frequency	Up to 20 Hz
RGB camera	Built-in 8MP
Weight	0.754 kg
Size	L 128 x W 101 x H 111 mm
Autonomy	Powered from UAV
Power consumption	20 W
Operating temperature	-10 to +40 °C

(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.

Package includes.

✓ Hardware:

- ▶ YellowScan Surveyor Ultra OEM
- ▶ Rugged pelicase
- ▶ UAV GNSS antenna and cable
- ▶ 2 USB flash drives
- ▶ Documentation

✓ Software:

- ▶ YellowScan CloudStation Essential & SBG Qinertia

✓ Services:

- ▶ 1-year warranty & in-person or online training
- ▶ Boresight calibration certificate

+ Optional:

- ▶ Stand-alone mounting bracket
- ▶ Warranty and technical support extensions
- ▶ CloudStation Pro: refine and improve your data quality, with more export options

Dimensional drawings.

① Dimensions expressed in millimeters

