



YellowScan Surveyor Ultra.

Lightweight 360° LiDAR system for UAV integration

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

Combining light weight and high density, its flexibility makes a great addition anywhere.



Technologies inside

 SBG SYSTEMS

 HESAI



Key differentiators

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



Integrations

- ▶ Single rotor UAV
- ▶ Multirotor UAV
- ▶ VTOL UAV
- ▶ Fly & Drive

Technical specifications.

Laser scanner	Hesai XT32M2X
GNSS inertial solution	SBG Quanta Micro
Precision ⁽¹⁾	3 cm
Accuracy ⁽²⁾	2.5 cm
Typ. flight speed	10 m/s
Typ. flying height	100 m
Max. rec. flying height	140 m
Point density	60 pts/sqm @ 100m AGL 10 m/s
Laser range	Up to 300 m
Laser wavelength	905 nm
Scanner field-of-view	360° x 40.3°

Max. data generated ⁽³⁾	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 2MP global shutter
Weight	0.98 kg (2.2 lbs) batt. excl.
Size	L 153 x W 113 x H 117 mm
Autonomy	1.2 hour typ.
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
- ▶ 2 Batteries
- ▶ Rugged pelicase
- ▶ UAV GNSS antenna and cable
- ▶ 2 USB flash drives
- ▶ Documentation

✓ Software:

- ▶ YellowScan CloudStation Essential & SBG Qintertia

✓ Services:

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

+ Optional:

- ▶ Stand-alone mounting bracket
- ▶ Single- or Dual-camera modules (RGB)
- ▶ 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

Dimensional drawings.

ⓘ Dimensions expressed in millimeters

