



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



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 Qinertia

✓ 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

