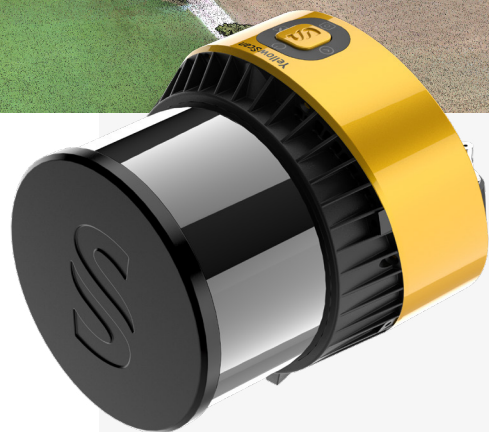# YellowScan Surveyor Ultra OEM.

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 RGB camera for colorization purposes.

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

Technologies inside

SBG SYSTEMS

HESAI

Key differentiators

▶ 360° Surveying & mapping
▶ Easy to use and process
▶ Less than 800g

Integrations

▶ Single-rotor UAV
▶ Multi-rotor UAV
▶ VTOL UAV

Technical specifications.

Laser scanner	Hesai XT32M		Echoes per shot	Up to 3
GNSS inertial solution	SBG Quanta Micro		Shots per second	Up to 640 000
Precision [1] [3]	3 cm		Scanning frequency	Up to 20 Hz
Accuracy [2] [3]	2.5 cm		RGB camera	Built-in (for colorization purposes)
Typ. flight speed	18 m/s		Weight	0.754 kg
Typ. flight height	100 m		Size	L 128 x W 101 x H 111 mm
Max. rec. flight height	120 m		Battery autonomy	Powered from UAV
Point density	34 pts/sqm @ 100 m AGL 18 m/s		Power consumption	20 W
Laser range	Up to 300 m		Operating temperature	-10 to +40 °C
Laser wavelength	905 nm			
Scanner field-of-view	360° x 40.3°			
Max. data generated [4]	1 920 000 points/sec			

(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) 1σ @ 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

✓ **Services :**
- ▸ 1-year warranty & unlimited technical support
- ▸ Boresight calibration certificate

✓ **Software :**
- ▸ SBG Qinertia to post-process GNSS and inertial data for highest accuracy
- ▸ **CloudStation Essential**
  Visualize, inspect, colorize from orthophotos, and export your data.

⊕ **Optional accessories and enhancements :**
- ▸ Warranty and technical support extensions
- ▸ **CloudStation Pro**
  Visualize, inspect, refine your data quality, enrich your data with classification and color, and unlock more export features.

- ▸ **CloudStation Ultimate**
  Zero compromise, all features activated.
  Includes Orthophoto generation and Command Line (ytk) processing for automation & batching.

Dimensional drawings.

ⓘ Dimensions expressed in millimeters

93 · 111 · (2X) M3 mounting points · (2X) M3 mounting points · 128 · 101