

# YellowScan Surveyor Ultra.

**Affordability. Flexibility.  
Productivity.**

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
- Weight : 1 kg
- Easy to use and process



## Integrations

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

## Technical specifications.

Laser scanner	Hesai XT32M
GNSS inertial solution	SBG Quanta Micro
Precision <sup>(2) (3)</sup>	3 cm
Accuracy <sup>(2) (3)</sup>	2.5 cm
Typ. flight speed	10 m/s
Typ. flight height	100 m
Max. rec. flight 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°

(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.

Max. data generated <sup>(4)</sup>	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 (for colorization purposes)
Weight	0.983 kg (2.167 lbs) batt. excl.
Size	L 153 x W 113 x H 117 mm
Battery autonomy	1 hour typ.
Power consumption	23 W
Operating temperature	-10 to +40 °C

(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
- 2 Batteries
- Rugged pelicase
- UAV GNSS antenna and cable
- 2 USB flash drives
- Documentation

### ✓ Services :



- 1-year warranty & unlimited technical support
- In-person or online training
- 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.

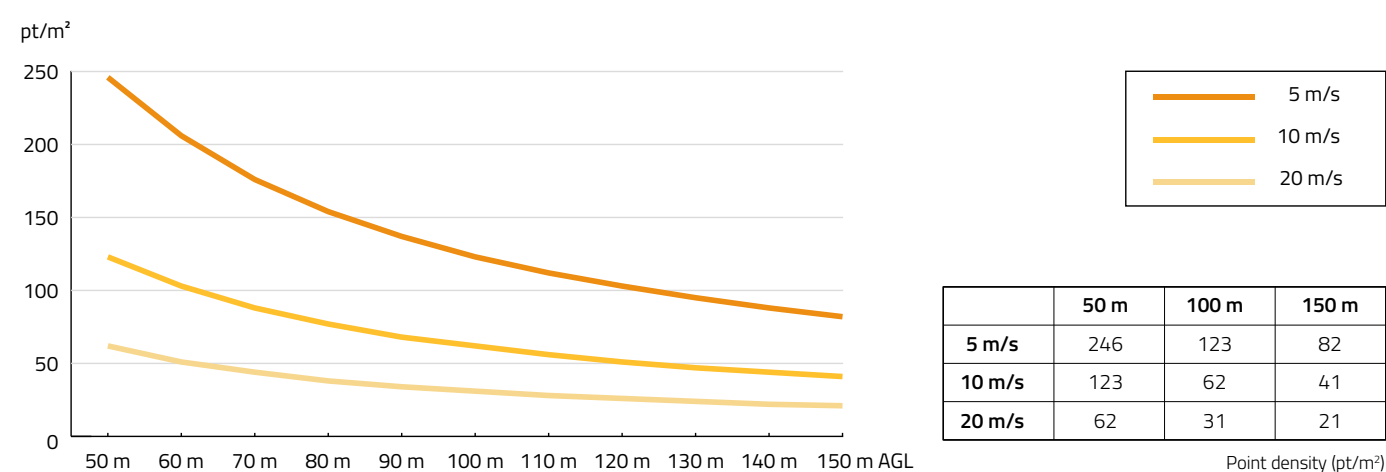
### + Optional accessories and enhancements :

- Stand-alone mounting bracket
- YellowScan LiveStation: the real-time in-flight LiDAR monitoring kit (includes software & 2 radio-modems)
- Warranty and technical support extensions
- Single- or Dual-camera modules (RGB)

- **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 (ytik) processing for automation & batching.

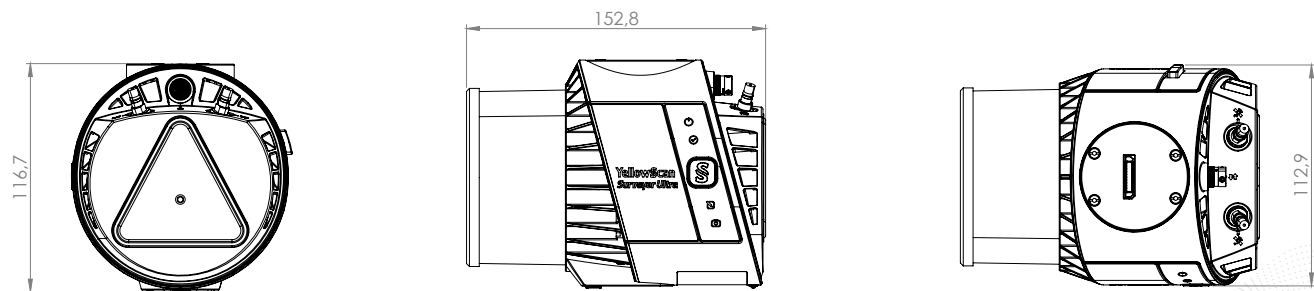


# Typical mission parameters.



# Dimensional drawings.

ⓘ Dimensions expressed in millimeters

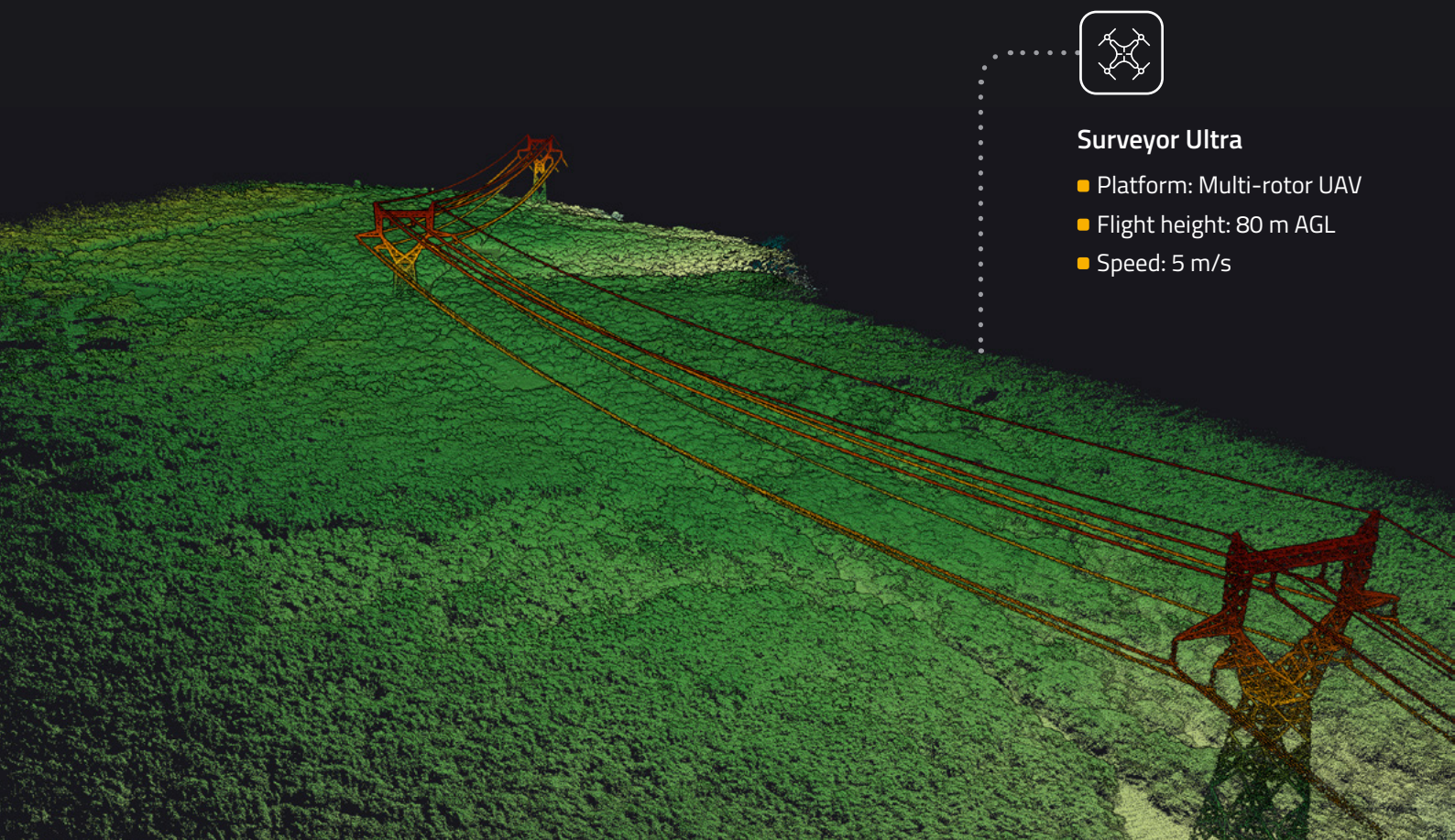


## Typical point cloud snapshots.



### Surveyor Ultra

- Platform: Multi-rotor UAV
- Flight height: 80 m AGL
- Speed: 5 m/s



### Surveyor Ultra

- Platform: Multi-rotor UAV
- Flight height: 80 m AGL
- Speed: 5 m/s