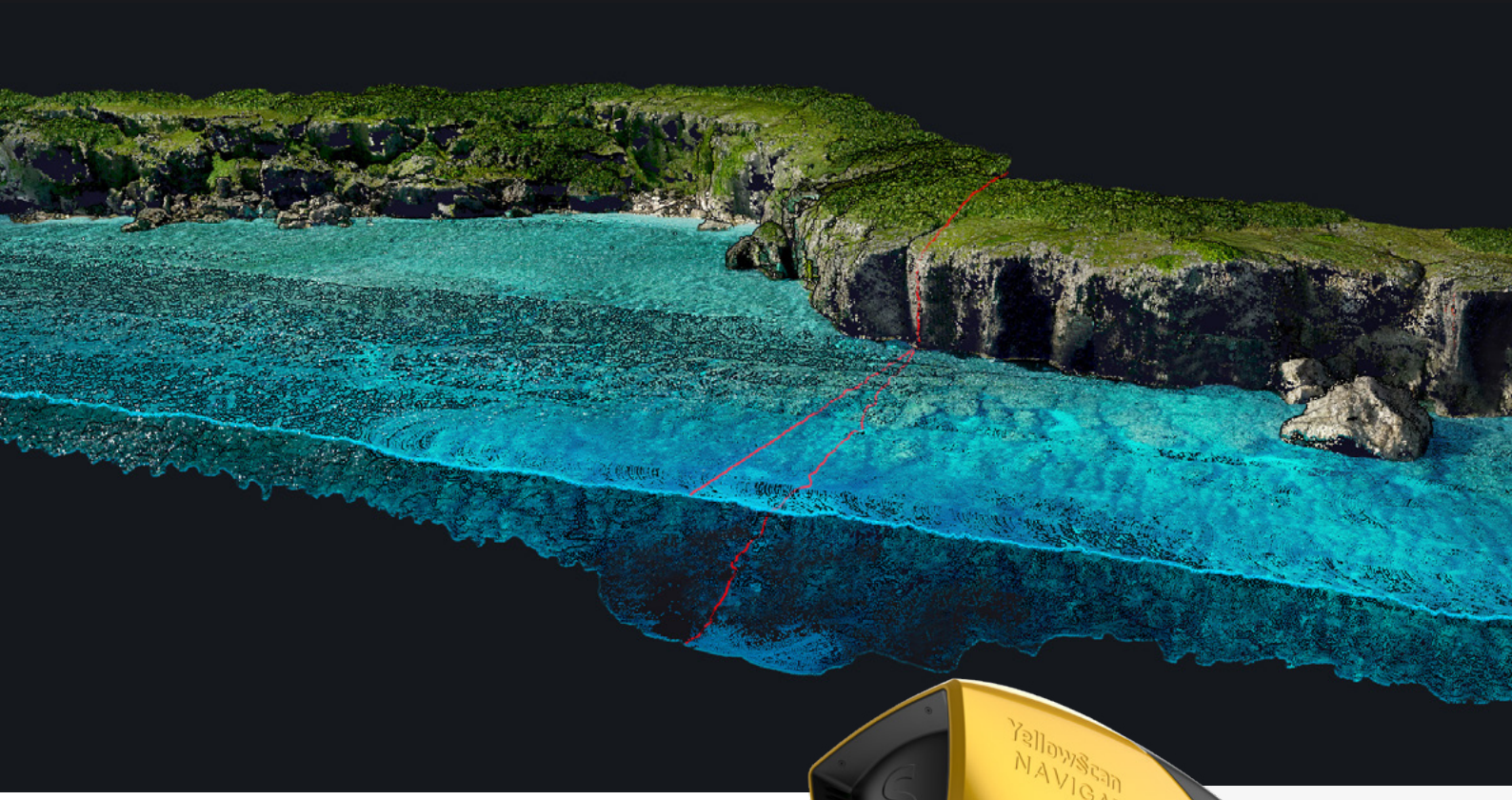
YellowScan | Designed to innovate.



YellowScan Navigator.

Depths to heights: operating bathymetric LiDAR with one button.

The YellowScan bathymetric LiDAR is an innovative solution for exploring underwater and ground topography with a single-button operation.

Its lightweight design allows for versatile platform selection without compromising water penetration.

Technologies inside

YellowScan

SBG SYSTEMS

Key differentiators

- Topographic & bathymetric mapping
- Easy to use and process

Integrations

- Single-rotor UAV
- Multi-rotor UAV

Technical specifications.

Laser scanner	YellowScan
GNSS inertial solution	SBG Quanta Micro
Precision (1) (3)	3 cm
Accuracy (2) (3)	3 cm
Typ. flight speed	5 m/s
Typ. flight height	80 m
Max. rec. flight height	100 m
Point density	20 pts/sqm @ 80 m AGL 5 m/s
Laser range	Up to 120 m
Laser wavelength	532 nm
Scanner field-of-view	40°
Max. Depth	2 Secchi

Max. data generated (4)	Up to 200 000 points / sec
Echoes per shot	Up to 10 / Full waveform
Shots per second	Up to 20 000
Scanning frequency	Up to 50 Hz *(selectable)*
RGB camera *(for colorization purposes)*	Global shutter embedded camera
Weight	3.7 kg *(8.15 lbs)* batt. excl.
Size	L 350 x W 160 x H 190 mm
Battery autonomy	45 min. typ.
Power consumption	120 W
Operating temperature	5° to +40 °C
Laser class	Class 3B - Avoid direct exposure to beam

(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. Values computed in topography, bathymetric performance may vary.

(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 Navigator
- Integrated Gremsy mount
- Rugged pelicase
- 2 Batteries
- UAV GNSS antenna and cable
- 2 USB flash drives
- Documentation
- Laser Safety Goggles

✓ 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.

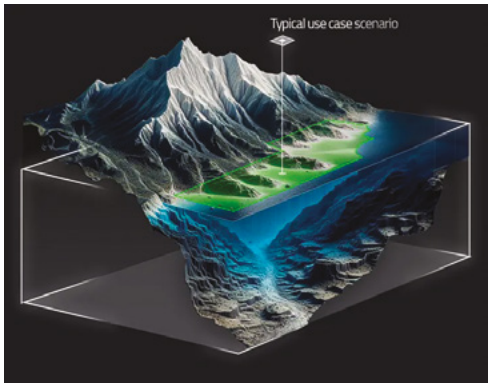
⊕ Optional accessories and enhancements :

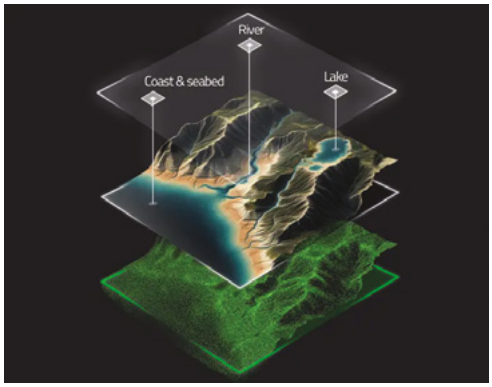
- Stand-alone mounting bracket
- Warranty and technical support extensions

- **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.

Simultaneous land & water survey

The YellowScan Navigator system is designed for conducting bathymetric measurements in shallow waters and is rapidly deployable on a UAV. This full waveform LiDAR system ensures continuity between underwater points and the surrounding terrain.



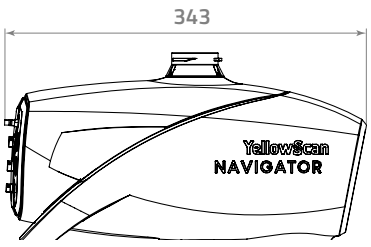


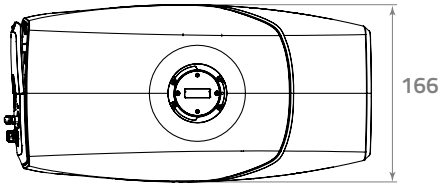
Diverse water environments

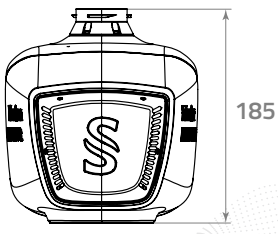
Intended for aerial use on drones, this bathymetric LiDAR solution is deployable over various aquatic environments such as shorelines, rivers, lakes, estuaries, ponds and gravel pits. The YellowScan Navigator is user-friendly and adaptable for a wide range of applications, from hydrographic surveys to underwater resource management.

Dimensional drawings.

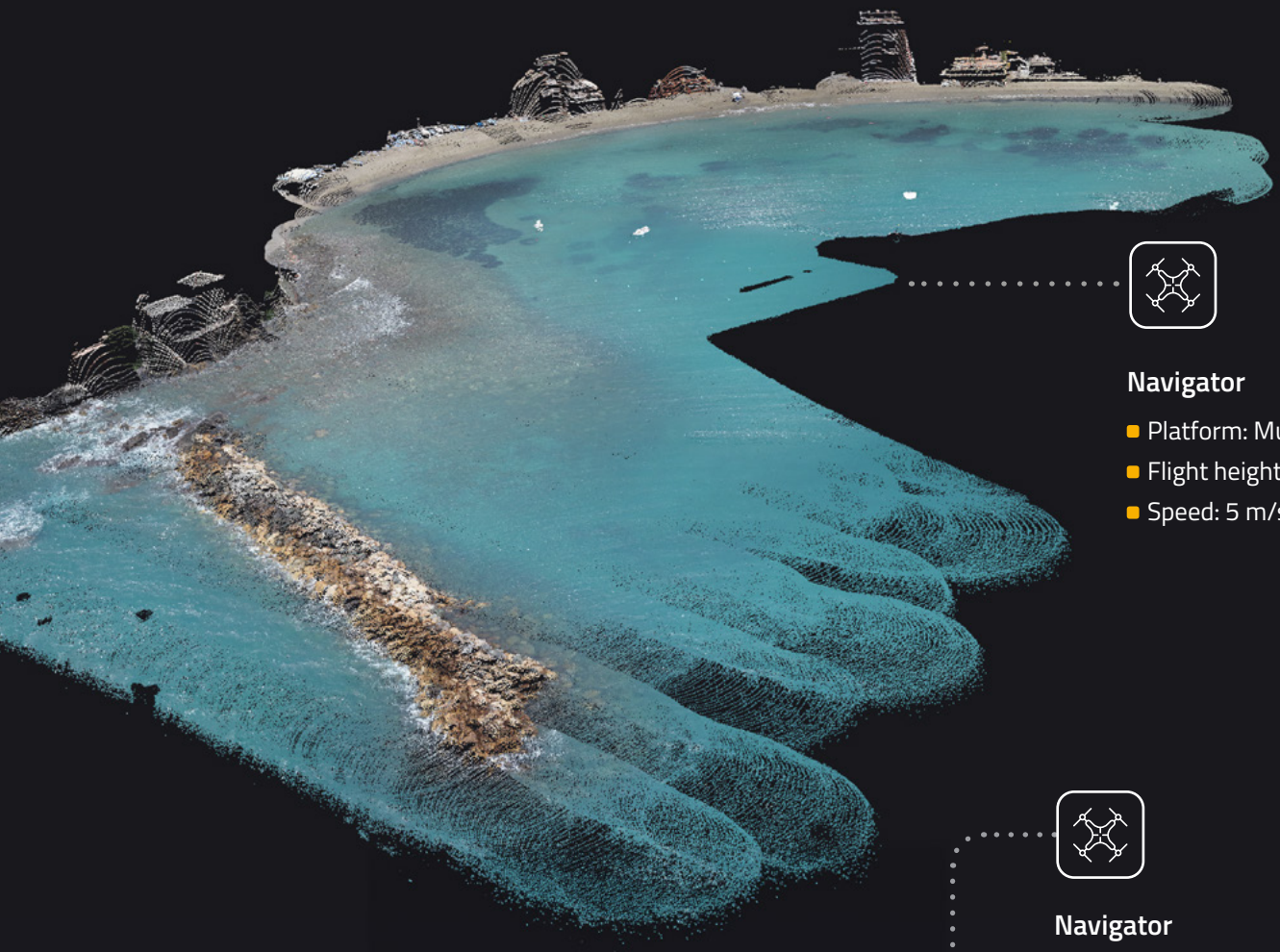
ⓘ Dimensions expressed in millimeters







Typical point cloud snapshots.



Navigator

- Platform: Multi-rotor UAV
- Flight height: 70 m AGL
- Speed: 5 m/s

Navigator

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