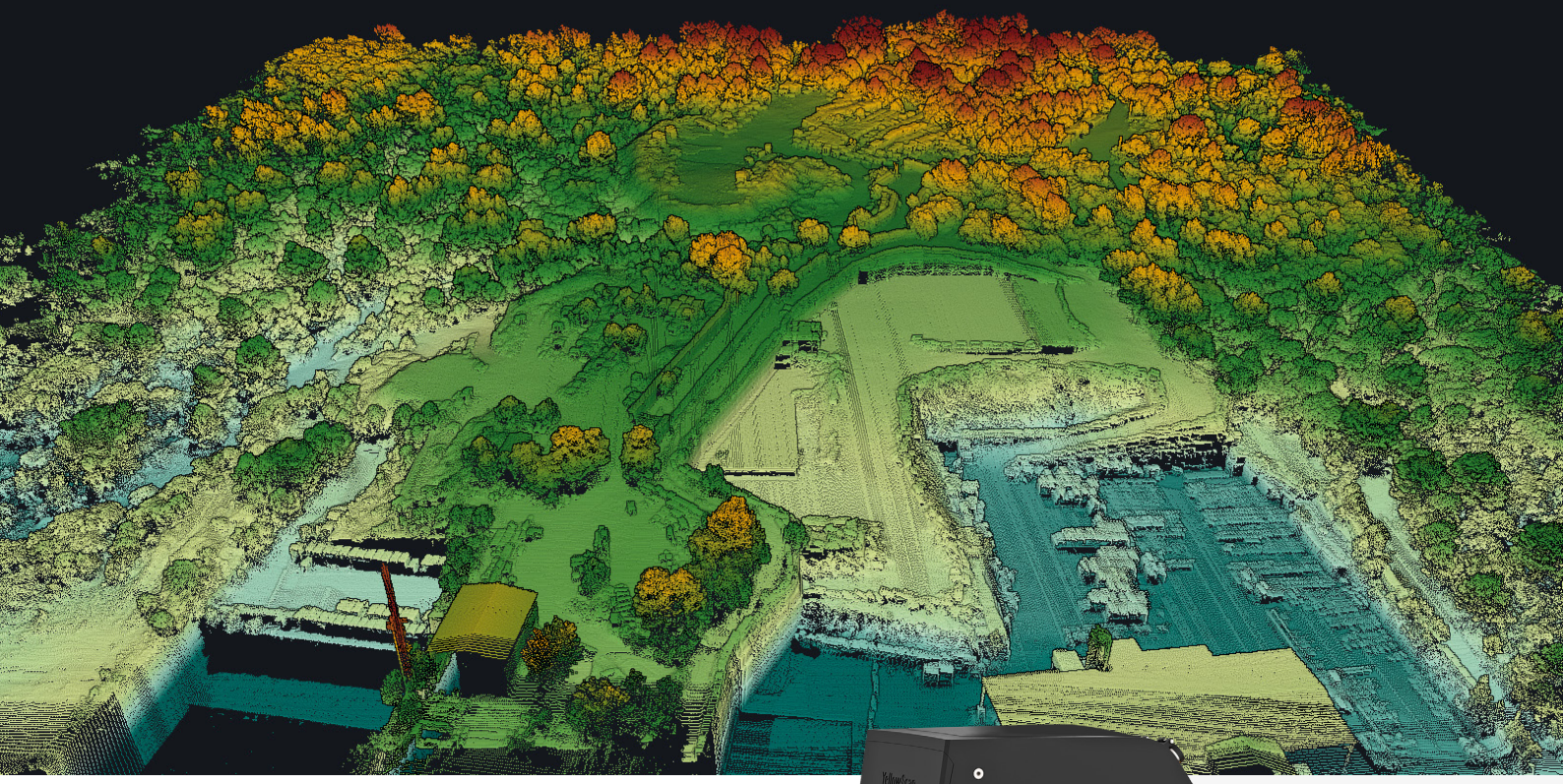
YellowScan | Designed to innovate.



YellowScan Vx20 series.

The most accurate and high precison UAV LiDAR solution

YellowScan Vx20 is the most accurate fully integrated system from YellowScan's product range.

It can fly up to 100m while maintening accuracy throughout the point cloud.

Ideally suited for applications that requires sharp and accurate descriptions.

Technologies inside

applanix | RIEGL

Key differentiators

- High precision point cloud
- Maximized range
- Calibrated intensity value
- Highest accuracy

UAV Integrations

- Single rotor UAV
- Multirotor UAV

System integration options.

Vx20-100

Scanner :
RIEGL miniVUX-1UAV

Vx20-300

Scanner :
RIEGL miniVUX-3UAV

Package includes.

Hardware:

- YellowScan Vx20-100 or 300
- Rugged pelicase
- 2 Batteries
- GNSS antenna and cable
- 2 USB flash drives
- Documentation

Services:

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

Software:

- Applanix POSPac UAV, to post-process GNSS and inertial data for highest accuracy
- YellowScan CloudStation Essential to generate, visualize, inspect, and export your data

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Optional:

- Stand-alone mounting bracket for DJI M600
- Mounting bracket with single Sony α6000 camera for DJI M600
- Mounting bracket with dual Sony α6000 camera for DJI M600
- Mounting bracket with Micasense Altum camera
- CloudStation Pro: refine and improve your data quality, with more export options
- Warranty and technical support extensions

Technical specifications.

Laser scanner	RIEGL miniVUX-1 or miniVUX-3 UAV
GNSS inertial solution	Applanix APX-20 UAV
Precision [1] [3]	1 cm
Accuracy [2] [3]	2.5 cm
Typ. flight speed	5 m/s
Typ. flying height	100 m
Max. rec. flying height	120 m
Laser range	Up to 170 m
Laser wavelength	905 nm
Max. data generated [4]	1 500 000 points/sec
Echoes per shot	Up to 5
Scanning frequency	Up to 100 Hz
RGB camera	Optional
Weight	2.85 kg (6.3 lbs) batt. excl.
Size	L 432 x W 106 x H 149 mm
Autonomy	1.5 hour typ.
Power consumption	25 W
Operating temperature	-10 to +40 °C

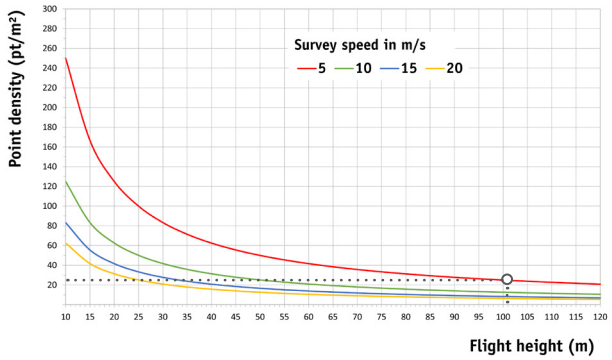
Vx20-100	**100 kHz**
Shots per second	100k over 360°
Scanner field-of-view	360°
Typ. flying height natural targets ≥ 20%	100 m
Point density @50m AGL, 5m/s, 90°FOV	50 pts/sqm

Vx20-300	**100 kHz**	**200 kHz** over 360°	**200 kHz** over 180°	**300 kHz**
Shots per second	100k over 360°	200k over 360°	100k over 180°	100k over 120°
Scanner field-of-view	360°	360°	180°	120°
Typ. flying height natural targets ≥ 20%	100 m	85 m	100 m	100 m
Point density @50m AGL, 5m/s, 90°FOV	50 pts/sqm	100 pts/sqm	100 pts/sqm	150 pts/sqm

(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 sigma @ 50 m, nadir.
(4) Theoretical maximum points of the YellowScan Vx20-300 with all shots yielding the maximum number of echoes. May vary depending on flight and survey conditions, and surveyed environment.

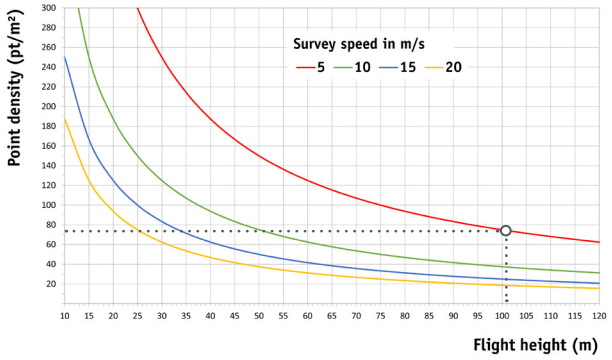
Typical mission parameters.

Vx20-100



LiDAR unit	Vx20-100
Flight speed	5m/s
Flying height	100m AGL
Point density	25pts/sqm

Vx20-300

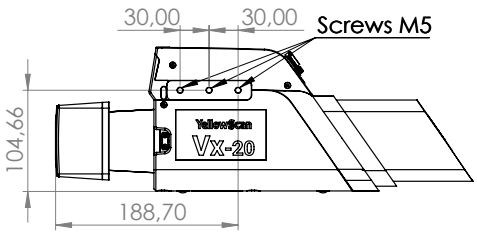


LiDAR unit	Vx20-300
Flight speed	5m/s
Flying height	100m AGL
Point density	75pts/sqm

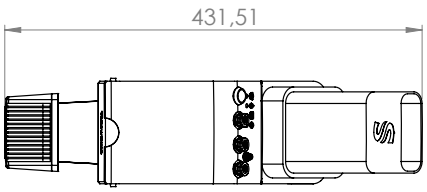
Dimensional drawings.

ⓘ Dimensions expressed in millimeters

Side view



Top view



Front view