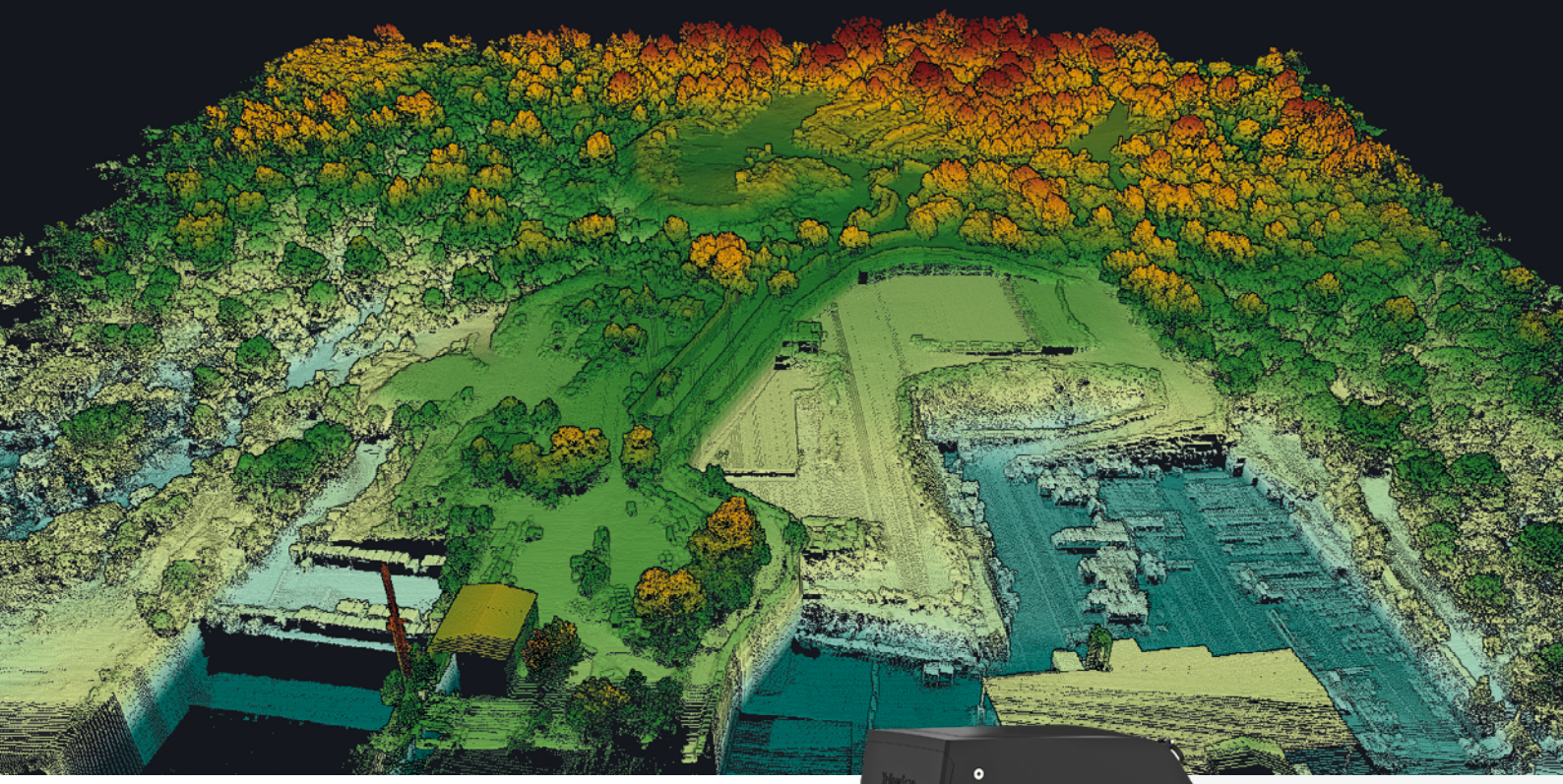
YellowScan | Designed to Innovate



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

- Multirotor drones
- Helicopter drones

System integration options.

Vx20-100

Scanner :
RIEGL miniVUX-1UAV

Vx20-300 NEW

Scanner :
RIEGL miniVUX-3UAV

Package includes.

Hardware:

- YellowScan Vx20-100 / 300
- Rugged pelicase
- Charger and 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, to generate and visualize your georeferenced point cloud

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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
- Warranty and technical support extensions
- YellowScan LiveStation: the real-time in-flight LiDAR monitoring kit (includes software and 2 radio-modems)
- Strip Adjustment module: a point cloud enhancing toolbox for the CloudStation software
- Terrain module: export classified point clouds from the CloudStation software

Technical specifications.

Precision[1] [3]	1 cm
Accuracy[2] [3]	2.5 cm
Echoes per shot	Up to 5
Laser wavelength	905 nm
GNSS-Inertial solution	Applanix APX-20 UAV

Weight	2.84 kg (6.25 lbs) battery included
Size	L 43 x W 11 x H 17 cm
Autonomy	1.5 hours typ.
Power consumption	25 W
Operating temperature	-20 to +40 °C

Vx20-100	**100 kHz**
Shots per second	100k over 360°
Scanner field of view	360°
Operating Flight Altitude AGL natural targets ≥ 20%	100m
Average point density @50m AGL, 5m/s, 90°FOV	50pts/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°
Operating Flight Altitude AGL natural targets ≥ 20%	100m	85m	100m	100m
Average point density @50m AGL, 5m/s, 90°FOV	50pts/sqm	100pts/sqm	100pts/sqm	150pts/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 σ @ 50 m, nadir.

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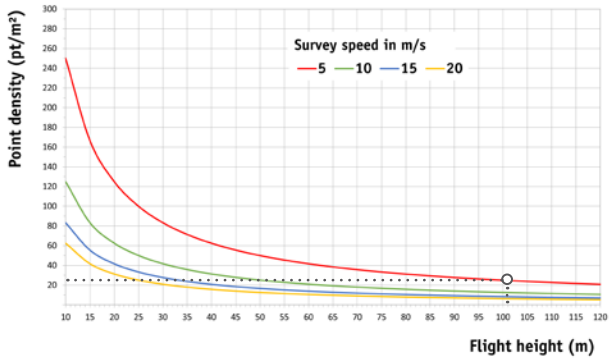
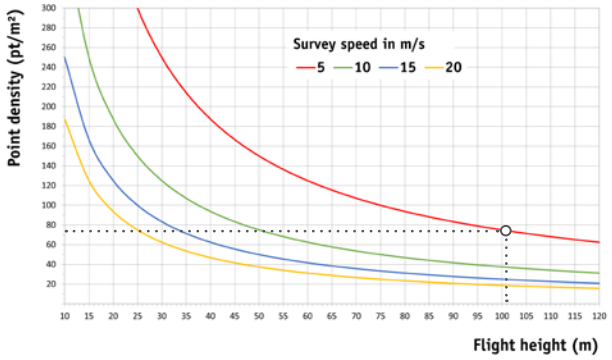
Typical mission parameters.

Vx20-100



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

Vx20-300

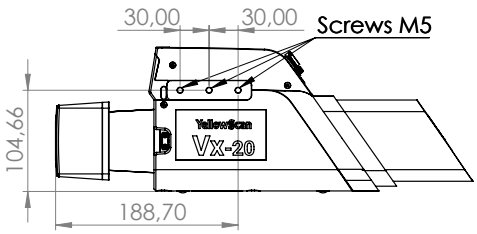


LiDAR unit	Vx20-300
Flight speed	5m/s
Flying height	100m AGL
Point density	75pts/sqm

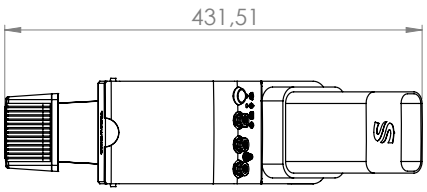
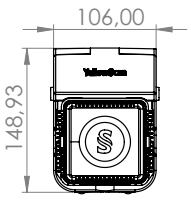
Dimensional drawings.

ⓘ Dimensions expressed in millimeters

Side view



Top view



Front view