

YellowScan Vx15 series.



The long range & high precision UAV LiDAR solution

YellowScan Vx15 is the lightest system integrating the Riegl Mini-VUX.

Ideally suited for high precision surveys such as civil engineering.

Coupled with the DJI M300 it allows over 25min flight time maximizing your survey production.



Technologies inside

aplanix | RIEGL



Key differentiators

- ▶ High precision point cloud
- ▶ Maximized range
- ▶ Calibrated intensity value



UAV Integrations

- ▶ Multirotor drones
- ▶ Helicopter drones

System integration options.



▶ Vx15-100

Scanner :
RIEGL miniVUX-1UAV



▶ Vx15-200

Scanner :
RIEGL miniVUX-2UAV



▶ Vx15-300 NEW

Scanner :
RIEGL miniVUX-3UAV

Package includes.

✓ Hardware:

- ▶ YellowScan Vx15-100 / 200 / 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



+ Optional:

- ▶ Stand-alone mounting bracket for DJI M300/600
- ▶ 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)}	5 cm
Echoes per shot	Up to 5
Laser wavelength	905 nm
GNSS-Inertial solution	Applanix APX-15 UAV

Weight	2.6 kg (5.7 lbs) battery included
Size	L 35 xW 11 xH 17 cm
Autonomy	1.5 hours typ.
Power consumption	25 W
Operating temperature	-20 to +40 °C

Vx15-100	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

Vx15-200	100 kHz	200 kHz over 360°
Shots per second	100k over 360°	200k over 360°
Scanner field of view	360°	360°
Operating Flight Altitude AGL natural targets ≥20%	100m	85m
Average point density @50m AGL, 5m/s, 90°FOV	50pts/sqm	100pts/sqm

Vx15-300	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.

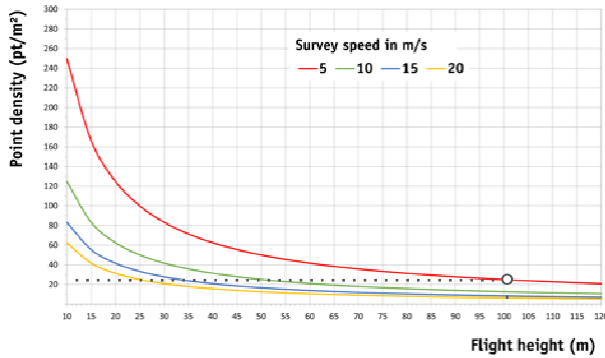
(3) One σ @ 50 m, nadir.

(4) Reduced power.



Typical mission parameters.

▶ Vx15-100

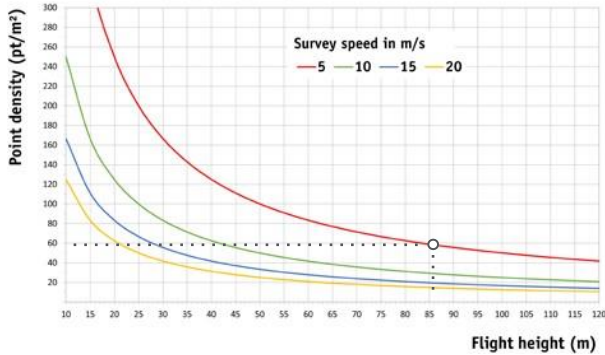


LIDAR UNIT	FLIGHT SPEED	ALTITUDE	POINT DENSITY
Vx15-100	5m/s	100m	25pts/sqm

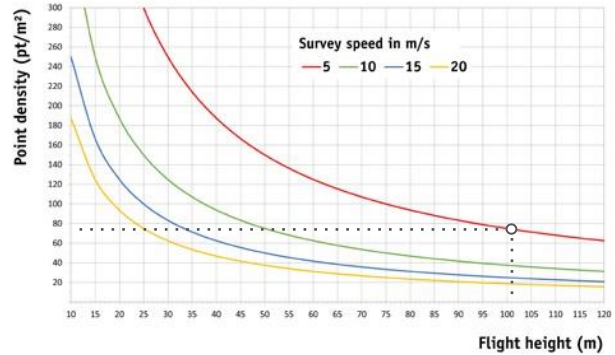
LIDAR UNIT	FLIGHT SPEED	ALTITUDE	POINT DENSITY
Vx15-200	5m/s	85m	60pts/sqm

LIDAR UNIT	FLIGHT SPEED	ALTITUDE	POINT DENSITY
Vx15-300	5m/s	100m	75pts/sqm

▶ Vx15-200



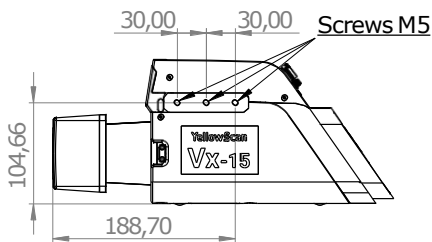
▶ Vx15-300



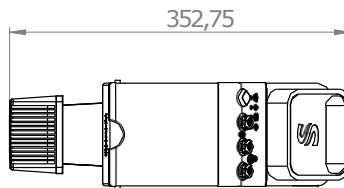
Dimensional drawings.

ⓘ Dimensions expressed in millimeters

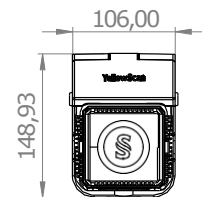
▶ Side view



▶ Top view



▶ Front view



YellowScan

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GoUAV

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