

# 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



**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 <sup>(1) (3)</sup>	1 cm	Weight	2.6 kg (5.7 lbs) battery included
Accuracy <sup>(2) (3)</sup>	5 cm	Size	L 35 x W 11 x H 17 cm
Echoes per shot	Up to 5	Autonomy	1.5 hours typ.
Laser wavelength	905 nm	Power consumption	25 W
GNSS-Inertial solution	Applanix APX-15 UAV	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.

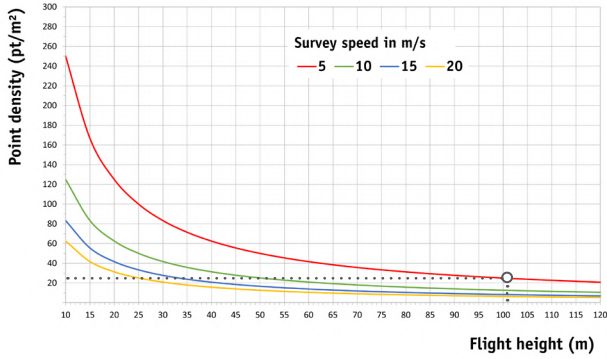
(3) One  $\sigma$  @ 50 m, nadir.

(4) Reduced power.



# Typical mission parameters.

## ▶ Vx15-100

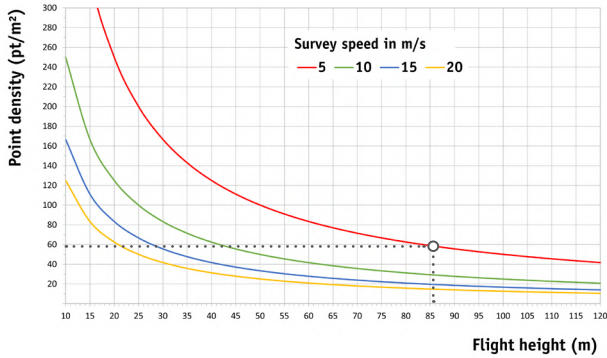


LIDAR UNIT	FLIGHT SPEED	ALTITUDE	POINT DENSITY
Vx15-100	5m/s	100m	25pts/sqm

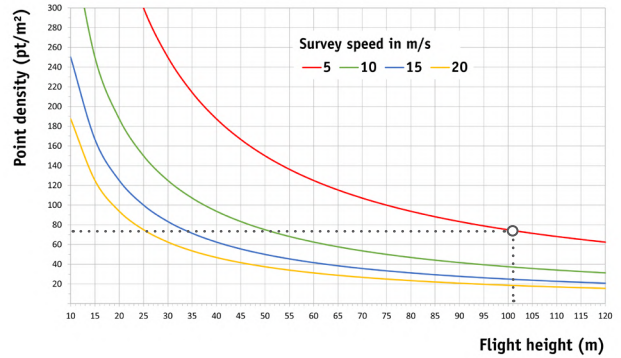
LIDAR UNIT	FLIGHT SPEED	ALTITUDE	POINT DENSITY
Vx15-200	5m/s	85m	60pts/sqm

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

## ▶ Vx15-200



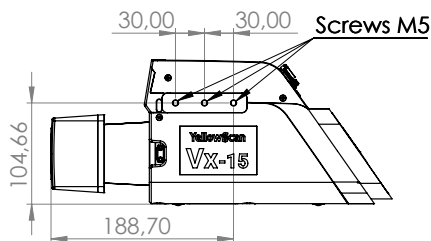
## ▶ Vx15-300



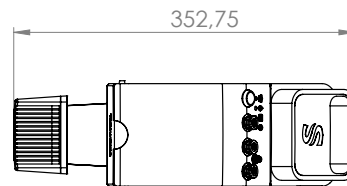
# Dimensional drawings.

① Dimensions expressed in millimeters

## ▶ Side view



## ▶ Top view



## ▶ Front view

