



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

applanix | RIEGL



Key differentiators

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



UAV Integrations

- ▶ Single rotor UAV
- ▶ Multirotor UAV

Technical specifications.

Laser scanner	RIEGL miniVUX-1 or miniVUX-3 UAV
GNSS inertial solution	Applanix APX-15 UAV
Precision ⁽¹⁾⁽³⁾	1 cm
Accuracy ⁽²⁾⁽³⁾	5 cm
Typ. flight speed	5 m/s
Typ. flying height	80 m
Max. rec. flying height	100 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	2.4 kg (5.3 lbs) batt. excl.
Size	L 353 x W 106 x H 149 mm
Autonomy	1.5 hour typ.
Power consumption	25 W
Operating temperature	-10 to +40 °C

Vx15-100	100 kHz
Shots per second	Up to 100 000
Scanner field-of-view	360°
Typ. flying height natural targets ≥ 20%	100 m
Point density @50m AGL, 5m/s, 90° FOV	50 pts/sqm

System integration options.



▶ **Vx15-100**
Scanner :
RIEGL miniVUX-1UAV

▶ **Vx15-300**
Scanner :
RIEGL miniVUX-3UAV

	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°
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 Vx15-300 with all shots yielding the maximum number of echoes. May vary depending on flight and survey conditions, and surveyed environment.

Package includes.

✓ Hardware:

- ▶ YellowScan Vx15-100 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