YellowScan Vx series.

Precise and tailored to your needs UAV LiDAR solution.

The VX-Series is YellowScan's heavy-duty of LiDAR Solutions. The time-tested Riegl MiniVux and Applanix integration offers high-end quality data in terms of accuracy, precision, and intensity values.

With adjustable scan configurations you can fit this solution to your mapping needs.

Technologies inside

applanix

RIEGL

Key differentiators

- High precision point cloud
- Calibrated intensity value
- Choose your configuration

UAV Integrations

- Single-rotor UAV
- Multi-rotor UAV

Technical specifications.

	Vx15-100	Vx15-300	Vx20-100	Vx20-300
Laser scanner	RIEGL miniVUX-1UAV	RIEGL miniVUX-3UAV	RIEGL miniVUX-1UAV	RIEGL miniVUX-3UAV
GNSS inertial solution	Applanix APX-15 UAV		Applanix APX-20 UAV	
Precision [1] [3]	1 cm		1 cm	
Accuracy [1] [3]	5 cm		2.5 cm	
Typ. flight speed	5 m/s			
Typ. flight height	80 m		100 m	
Max. rec. flight height	100 m	120 m	100 m	120m
Point density	50pts/sqm @ 50m AGL 5m/s	150pts/sqm @ 50m AGL 5m/s	50pts/sqm @ 50m AGL 5m/s	150pts/sqm @ 50m AGL 5m/s
Laser range	100 m		120 m	
Laser wavelength	905 nm		905 nm	
Scanner field-of-view	360°	360° (selectable)	360°	360° (selectable)
Max. data generated [4]	500 000 points/sec	1 500 000 points/sec	500 000 points/sec	1 500 000 points/sec
Echoes per shot	Up to 5	Up to 5	Up to 5	Up to 5
Shots per second	100k	200k	100k	200k
Scanning frequency	100 kHz	Up to 300 kHz (selectable)	100 kHz	Up to 300 kHz (selectable)
Weight	2.6 kg (5.7 lbs) battery included		2.84 kg (6.25 lbs) battery included	
Size	L 35 x W 11 x H 17 cm		L 43 x W 11 x H 17 cm	
Battery autonomy	1.5 hours typ.		1.5 hours typ.	
Power consumption	25 W		25 W	
Operating temperature	-20 to +40°C		-20 to +40°C	

(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) 1σ @ 50 m, nadir.
(4) Theoretical maximum of points with all shots yielding the maximum number of echoes. May vary depending on flight and survey conditions, and surveyed environment.

Package includes.

✓ **Hardware :**
  ▸ YellowScan Vx
  ▸ 2 Batteries
  ▸ Rugged pelicase
  ▸ GNSS antenna and cable
  ▸ 2 USB flash dwrives
  ▸ Documentation

✓ **Services :**
  ▸ 1-year warranty & unlimited technical support
  ▸ In-person or online training
  ▸ Boresight calibration certificate

✓ **Software :**
  ▸ Applanix POSPac to post-process GNSS and inertial data for highest accuracy
  ▸ **CloudStation Essential**
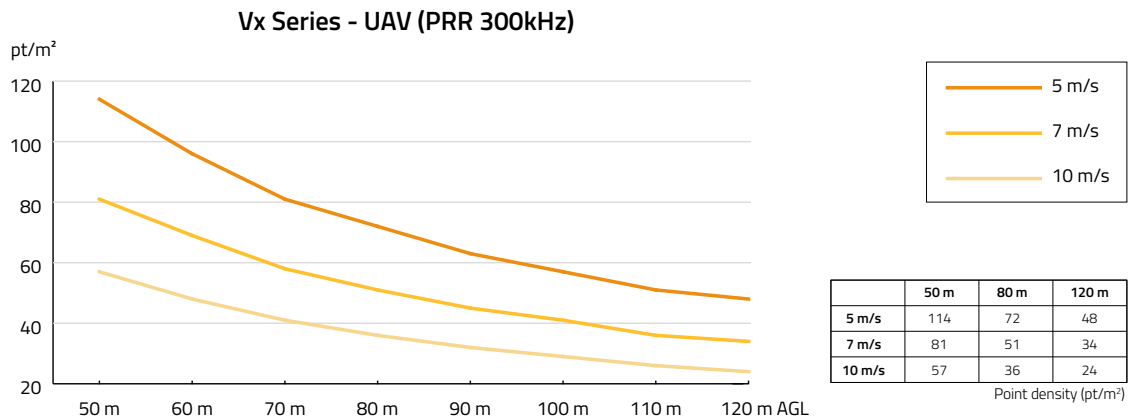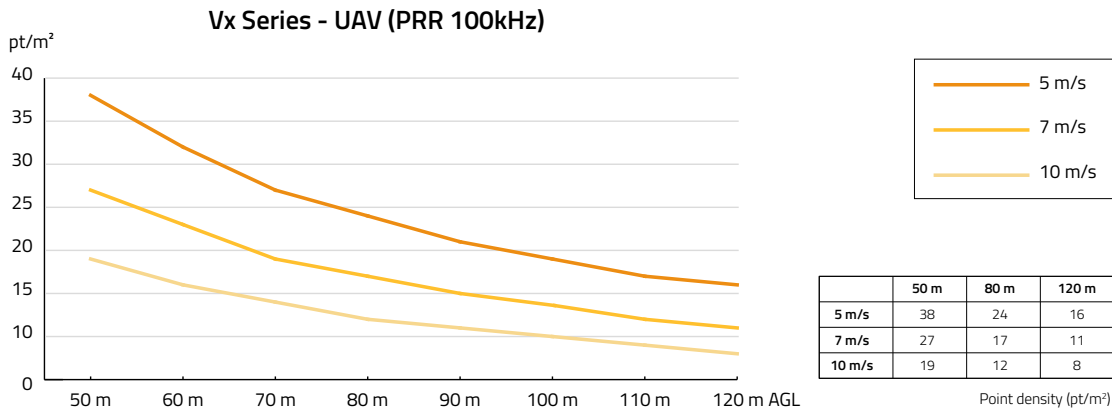   Visualize, inspect, colorize from orthophotos, and export your data.

⊕ Optional accessories and enhancements :

- ▶ Universal Mounting Bracket
- ▶ Universal mounting bracket with single Sony A6000 camera for DJI M600
- ▶ Universal mounting bracket with dual Sony A6000 camera for DJI M600
- ▶ Mounting bracket with Micasense Altum camera
- ▶ Warranty and technical support extensions

- ▶ **CloudStation Pro** ![CS Pro]
  Visualize, inspect, refine your data quality, enrich your data with classification and color, and unlock more export features.

- ▶ **CloudStation Ultimate** ![CS Ultimate]
  Zero compromise, all features activated.
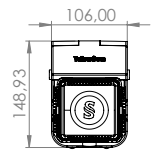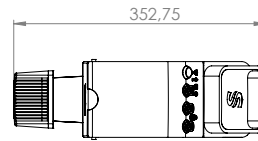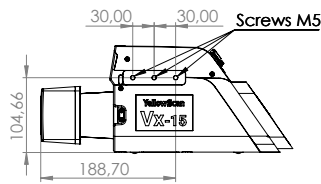 Includes Orthophoto generation and Command Line (ytk) processing for automation & batching.
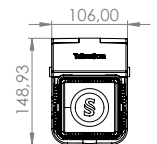

Typical mission parameters.

Vx Series - UAV (PRR 100kHz)

pt/m²

Legend: 5 m/s, 7 m/s, 10 m/s

	50 m	80 m	120 m
5 m/s	38	24	16
7 m/s	27	17	11
10 m/s	19	12	8

Point density (pt/m²)

Vx Series - UAV (PRR 300kHz)

pt/m²

Legend: 5 m/s, 7 m/s, 10 m/s

	50 m	80 m	120 m
5 m/s	114	72	48
7 m/s	81	51	34
10 m/s	57	36	24

Point density (pt/m²)

Dimensional drawings.

▶ **Vx15**

30,00   30,00   Screws M5
104,66
188,70

352,75

106,00
148,93

▶ **Vx20**

30,00   30,00   Screws M5
104,66
188,70

431,51

106,00
148,93
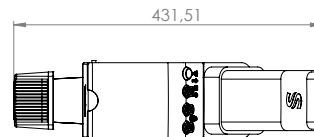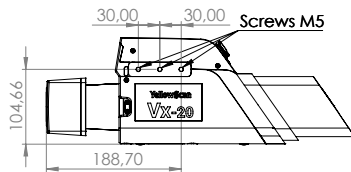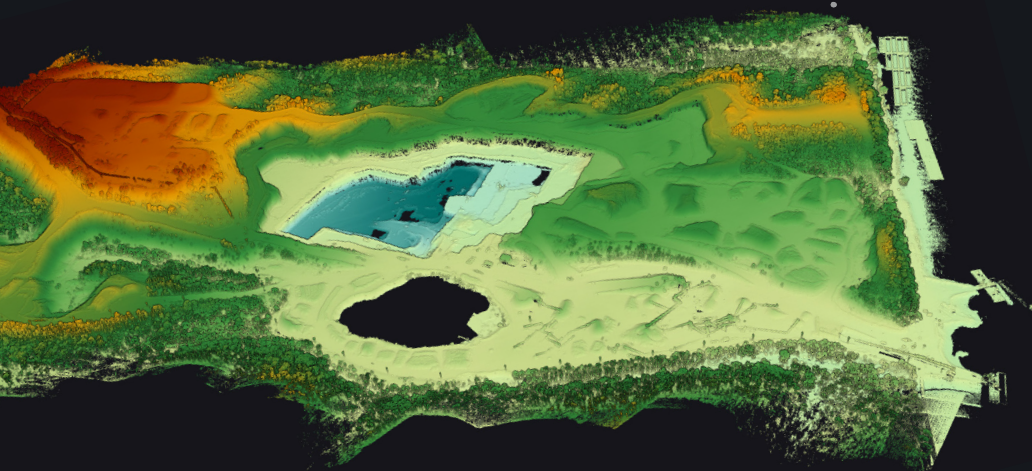
Typical point cloud snapshots.

Vx20-100

▶ Platform: Multi-rotor UAV
▶ Flight height: 120 m AGL
▶ Speed: 5 m/s

Vx20-100

▶ Platform: Multi-rotor UAV
▶ Flight height: 120 m AGL
▶ Speed: 5 m/s