

# RIEGL VUX<sup>®</sup>-1 Series

- >> RIEGL VUX-1HA
- >> RIEGL VUX-1UAV
- >> RIEGL VUX-1LR



RIEGL VMX-T4A with two integrated VUX-1HA LiDAR sensors



RIEGL RiCOPTER equipped with the RIEGL VUX-1UAV LiDAR sensor



RIEGL VUX-1LR integrated in RIEGL VP-1 helicopter pod



RIEGL VP-1 scan data

## High Performance LiDAR Sensors for **KINEMATIC** Laser Scanning

### VUX-1HA (High Accuracy) Typical Applications



- indoor and outdoor laser mapping
- tunnel profile measurements
- railway applications like clearance analysis, etc.

### VUX-1UAV Typical Applications



- topography in open-cast mining
- agriculture and forestry
- terrain and canyon mapping
- corridor mapping

### VUX-1LR (Long Range) Typical Applications



- corridor mapping: power line, railway track and pipeline inspection
- surveying of urban environments
- archeology and cultural heritage documentation



[www.riegl.com](http://www.riegl.com)



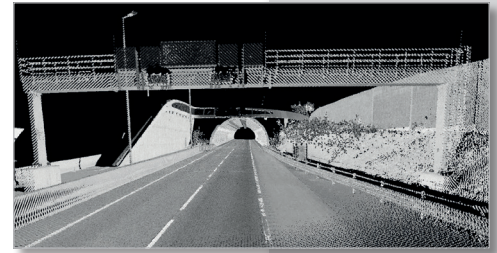


**RIEGL VUX®-1HA**



- compact, rugged and very lightweight **High Accuracy** LiDAR sensor
- easily mountable to whatsoever type of moving platform
- Laser Pulse Repetition Rate PRR > 1 MHz, high accuracy 5 mm

Eye Safety Class	Laser Class 1
Max. Range @ Target Reflectivity 80%	400 m
Max. Range @ Target Reflectivity 10%	150 m
Minimum Range	1.2 m
Accuracy/Precision	5 mm / 3 mm
Max. Effective Measurement Rate	1,000,000 meas./sec
Max. Scan Speed	250 scans/sec
Field of View (FOV)	360°



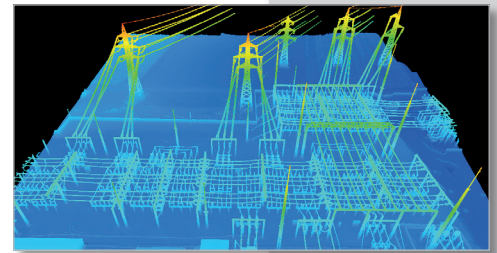
RIEGL VUX®-1HA scan data, transportation infrastructure mapping at highway speed

**RIEGL VUX®-1UAV**

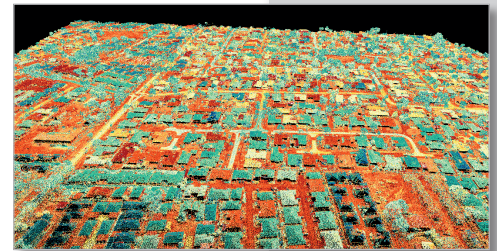


- compact, rugged and very lightweight LiDAR sensor for **UAV** integration
- easily mountable to professional UAS/UAV/RPAS, etc.
- fully integrated system solution RIEGL VUX-SYS and RiCOPTER available

Eye Safety Class	Laser Class 1
Max. Range @ Target Reflectivity 60%	920 m
Max. Range @ Target Reflectivity 20%	550 m
Minimum Range	3 m
Accuracy/Precision	10 mm / 5 mm
Max. Effective Measurement Rate	500,000 meas./sec
Max. Scan Speed	200 scans/sec
Field of View (FOV)	330°
Max. Operating Flight Altitude AGL	350 m / 1,150 ft



RIEGL VUX®-1UAV scan data, powerline inspection



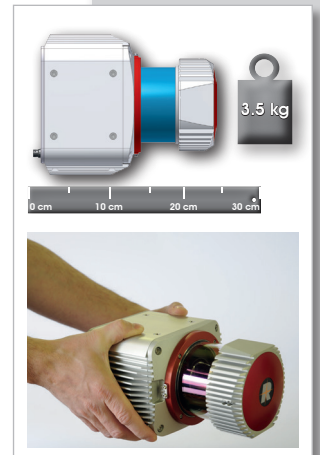
RIEGL VUX®-1LR scan data, urban area

**RIEGL VUX®-1LR**



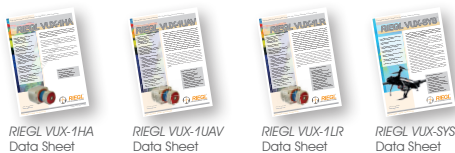
- compact, rugged and very lightweight **Long Range** LiDAR sensor
- ideally suited for airborne surveying from helicopters
- fully integrated system solution RIEGL VP-1 Helipod available for user-friendly mounting to helicopters

Eye Safety Class	Laser Class 1
Max. Range @ Target Reflectivity 60%	1,350 m
Max. Range @ Target Reflectivity 20%	820 m
Minimum Range	5 m
Accuracy/Precision	15 mm / 10 mm
Max. Effective Measurement Rate	750,000 meas./sec
Max. Scan Speed	200 scans/sec
Field of View (FOV)	330°
Max. Operating Flight Altitude AGL	530 m / 1,740 ft



compact and lightweight

**Further Information**



Watch our videos!  
youtube.com/rieglms

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