

The **NEW RIEGL VUX[®]-1 Series**

High-Performance LiDAR Sensors for KINEMATIC Laser Scanning



RIEGL's VUX-1, the world's first survey-grade UAV LiDAR sensor, was unveiled in 2014. Since its introduction, it has already been deployed by more than 30 customers around the world, and now is made available in three different application-optimized versions.

The sensors are designed to be mounted in any orientation and even under limited weight and space conditions. The VUX-1 series instruments provide high performance data acquisition for all fields of kinematic Laser Scanning, from mobile, to UAV-based and airborne applications.

NEW RIEGL VUX[®]-1HA High Accuracy

- compact, rugged and very lightweight design
- easily mountable to whatsoever type of moving platform
- field of view 355°
- 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	5 mm
Precision	3 mm
Max. Effective Measurement Rate	1,000,000 meas./sec
Max. Scan Speed	250 scans/sec
Field of View (FOV)	355°

Typical Applications

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

RIEGL VUX[®]-1UAV

- compact, rugged and very lightweight design
- easily mountable to professional UAS, UAV, RPAS, etc
- field of view 330°
- fully-integrated system solution RIEGL VUX-SYS and RICOPTER available
- optionally available with integrated APX-15 INS

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

Typical Applications

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

NEW RIEGL VUX[®]-1LR Long Range

- compact, rugged and very lightweight design
- ideally suited for airborne surveying from helicopters
- field of view 330°
- 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

Typical Applications

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



Additional data to be found in the RIEGL VUX-1 datasheet.

RIEGL Laser Measurement Systems GmbH assumes no responsibility or liability whatsoever regarding the correctness, appropriateness, completeness, up-to-dateness, and quality content and for the accuracy of the depicted objects respectively. All rights reserved.
© Copyright RIEGL Laser Measurement Systems GmbH, Horn, Austria
Info Sheet, RIEGL VUX-1 Series, 2015-04-27

www.riegl.com



RIEGL LMS GmbH, Austria

RIEGL USA Inc.

RIEGL Japan Ltd.

RIEGL China Ltd.