

NEW

RIEGL miniVUX-1 UAV

World Premiere at
INTERGEO 2016



The new **RIEGL miniVUX-1 UAV** is a user-friendly and cost-efficient device to acquire survey-grade measurement data by use of remotely piloted helicopters and unmanned aircrafts for a variety of applications.

Based on **RIEGL's** sophisticated waveform processing LiDAR technology, the **RIEGL miniVUX-1 UAV** provides high-speed data acquisition using echo signal digitization and online waveform processing. Its excellent multiple-target capability enables achieving superior measurement results even under adverse atmospheric conditions.

The 360° field of view allows data acquisition of the entire surroundings, a well designed housing supports mounting even under limited weight and space conditions.



Miniaturized LiDAR Sensor for Unmanned Laser Scanning

Typical applications include

• Agriculture & Forestry • Archeology and Cultural Heritage Documentation • Construction-Site Monitoring • Glacier and Snowfield Mapping • Landslide Monitoring



www.riegl.com



RIEGL LMS GmbH, Austria

RIEGL USA Inc.

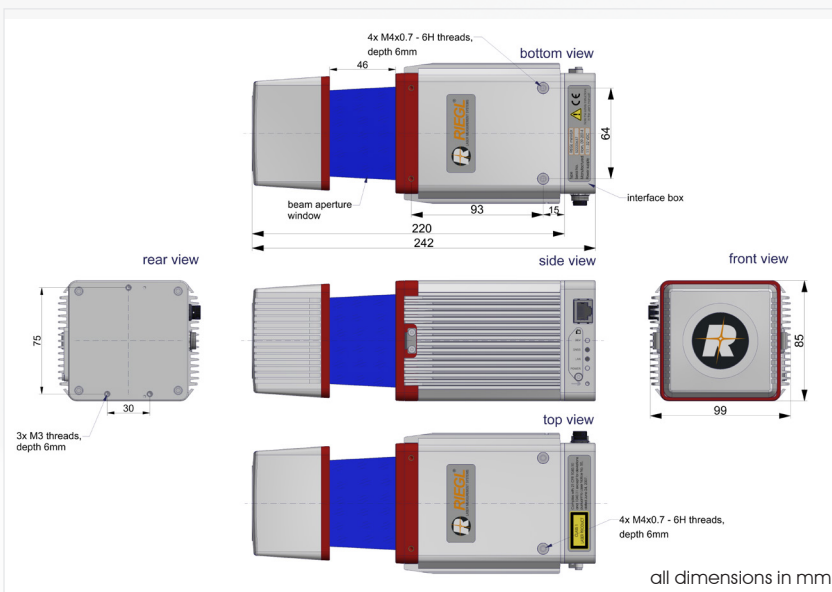
RIEGL Japan Ltd.

RIEGL China Ltd.

Highlights

- extremely lightweight (1.55 kg)
- compact, robust aluminium housing, ready to be mounted to fixed-wing and rotary UAV's
- 360° field of view for unrestricted data acquisition
- exceptionally suited for measuring snowy and icy terrain
- RIEGL's unique echo signal digitization and online waveform processing
- Multiple target capability – up to 5 target echoes per laser shot
- Narrow measurement beam with low divergence for high spatial resolution
- Mechanical and electrical interface for IMU mounting

Mechanical Drawings



RIEGL miniVUX®-1 UAV Preliminary Technical Data

max. operating flight altitude AGL	pulse repetition rate PRR (peak)	eye safe operation at Laser Class 1
online waveform processing	multiple target capability	

Eye Safety Class	Laser Class 1
Max. Range @ Target Reflectivity 60%	250 m
Max. Range @ Target Reflectivity 20%	150 m
Minimum Range	3 m
Accuracy / Precision	15 mm / 10 mm
Max. Effective Measurement Rate	up to 100,000 meas./sec
Field of View (FOV)	up to 360°
Max. Operating Flight Altitude AGL	100 m / 330 ft

Class 1 Laser Product according to IEC60825-1:2014



RIEGL miniVUX-1 UAV
Data Sheet



Watch our videos!
[youtube.com/rieglms](https://www.youtube.com/rieglms)

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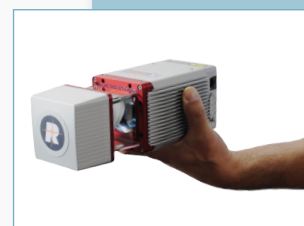
RIEGL miniVUX®-1 UAV with
protective cap



RIEGL miniVUX®-1 UAV with external
IMU-Sensor (optional)



RIEGL miniVUX®-1 UAV with cooling
fan device



compact & lightweight
miniVUX®-1 UAV



RIEGL miniVUX®-1 UAV
mounted on RICOPTR



RICOPTR with RIEGL miniVUX®-1 UAV
in action



RIEGL®