

NEW

RIEGL RiCOPTER with **RIEGL VUX[®]-1** integrated



RIEGL VUX-1 features

Ready to fly remotely piloted airborne Laser Scanning System:

RIEGL VUX-1 complete LiDAR system solution fully integrated into the high-performance unmanned multirotor aircraft RiCOPTER for professional surveying missions.



NEW RIEGL RiCOPTER

Remotely Piloted Aircraft System for Unmanned Laser Scanning (ULS)

Typical Applications

- Precision Agriculture
- Archeology and Cultural Heritage Documentation
- Terrain and Canyon Mapping
- Flood Zone Mapping
- Surveying of Urban Environments
- Topography in Open-Cast Mining
- Construction-Site Monitoring
- Power Line, Railway Track, and Pipeline Inspection



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RIEGL LMS GmbH, Austria

RIEGL USA Inc.

RIEGL Japan Ltd.

RIEGL China Ltd.

RIEGL VUX®-SYS Sensor System

System Components	<ul style="list-style-type: none"> • RIEGL VUX-1 UAS LiDAR sensor • IMU/GNSS unit with antenna • control unit • up to 4 cameras (optional)
RIEGL VUX-1 Scanner Performance when integrated in RiCOPTER	
Field of View (FOV)	230°
max. effective measurement rate	up to 350,000 meas./sec
max. range @ target reflectivity 20 %	550 m
minimum range	3 m
range accuracy	10 mm
eye safety class according to IEC60825-1:2007	Laser Class 1
IMU/GNSS Unit	
accuracy Roll, Pitch / accuracy Heading	0.015° / 0.035°
IMU sampling rate	200 Hz
position accuracy (typ.)	0.05 m - 0.3 m
Camera Interfaces	4x trigger and event marker

Details to be found in the latest RIEGL VUX-1 & VUX-SYS data sheets.

RiCOPTER Aircraft

Main Dimensions	
arms folded (for transportation & storage)	624mm x 986mm x 470mm
arms unfolded (ready to fly)	1,920mm x 1,820mm x 470mm
MTOM (Maximum Take-Off Mass)	< 25 kg
Max. Payload (batteries & sensors)	up to 16 kg
Max. Operating Flight Altitude AGL	> 500 ft operational limits for civil unmanned aircraft according to national regulations to be observed
Flight Endurance (with max. payload)	> 30 min.
Transportation Case (dimensions)	1,220mm x 810mm x 540mm

RIEGL RiCOPTER Main Features & Key Facts

- robust und reliable airborne scanner carrying platform
- full mechanical and electrical integration of sensor system components into aircraft fuselage
- carbon fibre main frame, foldable propeller carrier arms, and shock-absorbing undercarriage enable stable flight, safe landings and handy transportation
- coaxial array of 4 x 2 propellers enhancing flight stability and failure safety while reducing overall weight

RIEGL RiCOPTER Highlights



foldable arms facilitate easy transportation and storage



Easy to carry with the integrated carrying handle



RiCOPTER ready for take off