

RIEGL VPX-1 with integrated RIEGL VUX-240



RIEGL VUX-240 features



The **RIEGL VPX-1** is a lightweight and streamlined pod that carries a complete airborne laser scanning platform for easy and quick mounting on suitable support arms on helicopters.

Being perfectly suited for corridor mapping applications the platform consists of a **RIEGL VUX-240** airborne laser scanner, three Phase One iXM high resolution digital cameras and a high-end IMU/GNSS system. The airborne laser scanner's high effective repetition rate of 1.5 million measurements on the ground and the oblique orientation of the cameras (Forward/Nadir/Backward) especially account for the specifics of power line mapping applications, but also make it a perfect tool for high-density city mapping at altitudes of up to 1200m.



RIEGL VPX-1 with VUX-240 Helicopter Pod for Airborne Laser Scanning (ALS)

Typical Applications

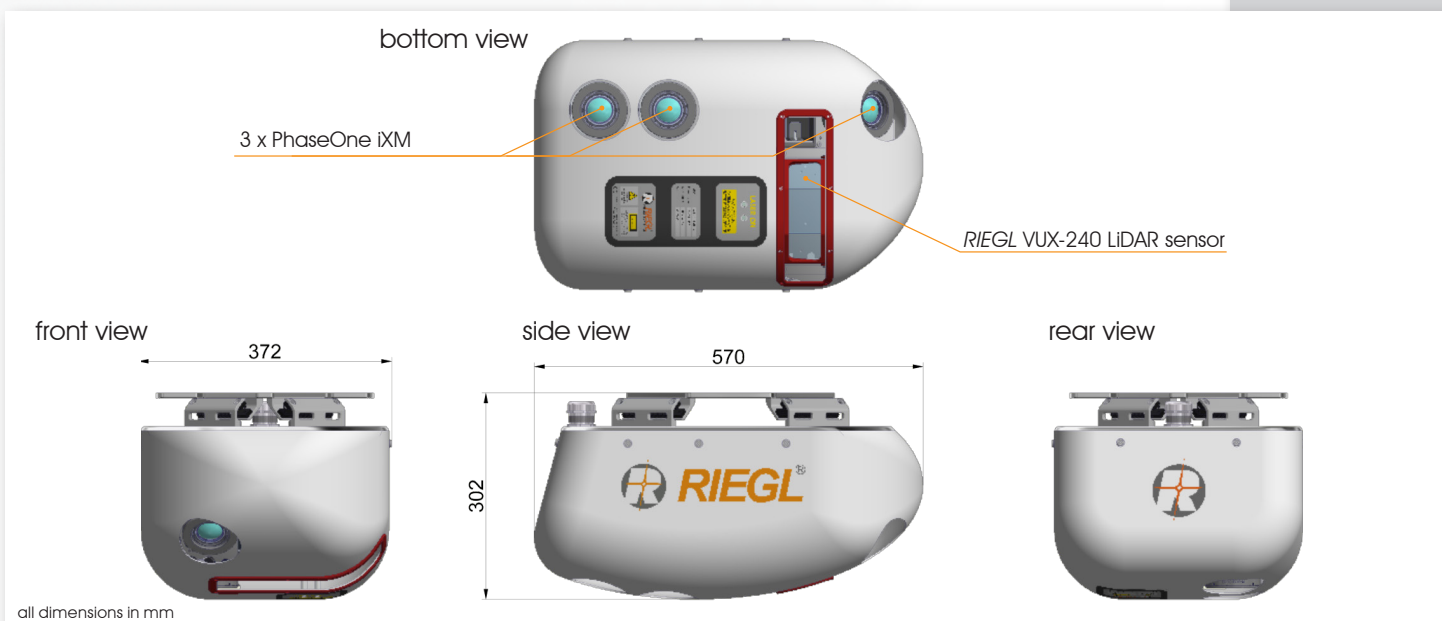
- Corridor Mapping
- Archeology and Cultural Heritage Documentation
- Terrain and Canyon Mapping
- Flood Zone Mapping
- Surveying of Urban Environments
- Topography in Open-Cast Mining
- Construction-Site Monitoring
- Power Line, Railway Track, and Pipeline Inspection
- Accident Investigation
- Emergency Management Planning



www.riegl.com



RIEGL VPX-1 with VUX-240 Technical Data



RIEGL VUX[®]-240 Sensor System

System Components	RIEGL VUX-240 LiDAR sensor IMU/GNSS unit with GNSS antenna control unit digital cameras (optional)		
Scanner Performance	refer to VUX-240 table below		
Total Weight	approx. 20 kg (depending on INS/GNSS unit and camera configuration)		
IMU/GNSS Unit	Applanix AP20	Applanix AP50-Air	Applanix AP60
accuracy Roll, Pitch / Heading	0.015° / 0.035°	0.005° / 0.010°	0.002° / 0.005
IMU sampling rate	200 Hz	200 Hz	200 Hz
position accuracy (typ.)	0.02 m - 0.05 m	0.02 m - 0.05 m	0.02 m - 0.05 m
Camera Interfaces	trigger and event marker		
Camera Orientation Angles	option 1 option 2		
	Cam1 (forward 30°), Cam2 (nadir 0°), Cam3 (nadir 0°) Cam1 (forward 30°), Cam2 (nadir 0°), Cam3 (backward -30°)		
Technical Data	quick installation & removal using the existing mounts (e.g. AirFILM Camera System); mounting and operation at enduser's responsibility; area exposed to wind 0.114m ²		



RIEGL VUX-240
Airborne Laser Scanner



RIEGL VPX-1 Helicopter Pod
with VUX-240 and 3 PhaseOne iXM
high resolution digital cameras

RIEGL VUX[®]-240 LiDAR Sensor

Laser Class	3R
Max. Effective Measurement Rate	up to 1,500,000 meas./sec
Max. Range @ target reflectivity 20%	1200 m
Minimum Range	5 m
Accuracy / Precision	20 mm / 15 mm
Field of View (FOV)	75°

Class 3R Laser Product according to IEC60825-1:2014

The following clause applies for instruments delivered into the United States: Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice No. 56, dated May 8, 2019.



Watch our videos!
youtube.com/riegllidar

Copyright RIEGL Laser Measurement Systems GmbH © 2022 – All rights reserved.
Use of this data sheet other than for personal purposes requires RIEGL's written consent.
This data sheet is compiled with care. However, errors cannot be fully excluded and alternations might be necessary.

www.riegl.com



system operation and
data acquisition with RiACQUIRE