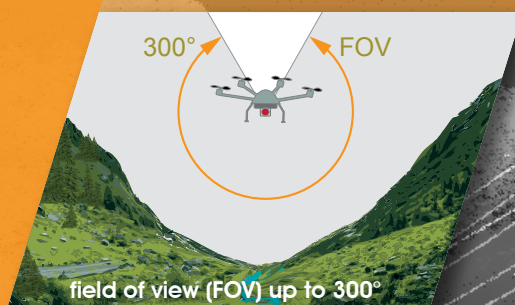


NEW RIEGL VUX[®]-1



RIEGL has developed a new class of LiDAR sensor to meet the challenges of emerging surveying solutions by UAS, UAV, RPAS, gyrocopters, and ultra-light aircraft, both in measurement performance and in system integration.



VUX[®]-1 mounted on UAS,
e.g. Flying-Cam 3.0 SARAH



Introducing the World's first survey-grade UAS laser scanner

Typical applications include

- Power Line, Railway Track, and Pipeline Inspection
- Terrain and Canyon Mapping
- Surveying of Urban Environments
- Capturing the Topography in Open-Cast Mining Areas
- Archaeology and Cultural Heritage Documentation
- Construction-Site Monitoring
- Corridor Mapping
- Agriculture and Forestry
- Flood Zone Mapping



www.riegl.com



RIEGL VUX®-1 Preliminary Technical Data



max. operating flight altitude AGL



pulse repetition rate PRR (peak)



eye safe operation at Laser Class 1



online waveform processing

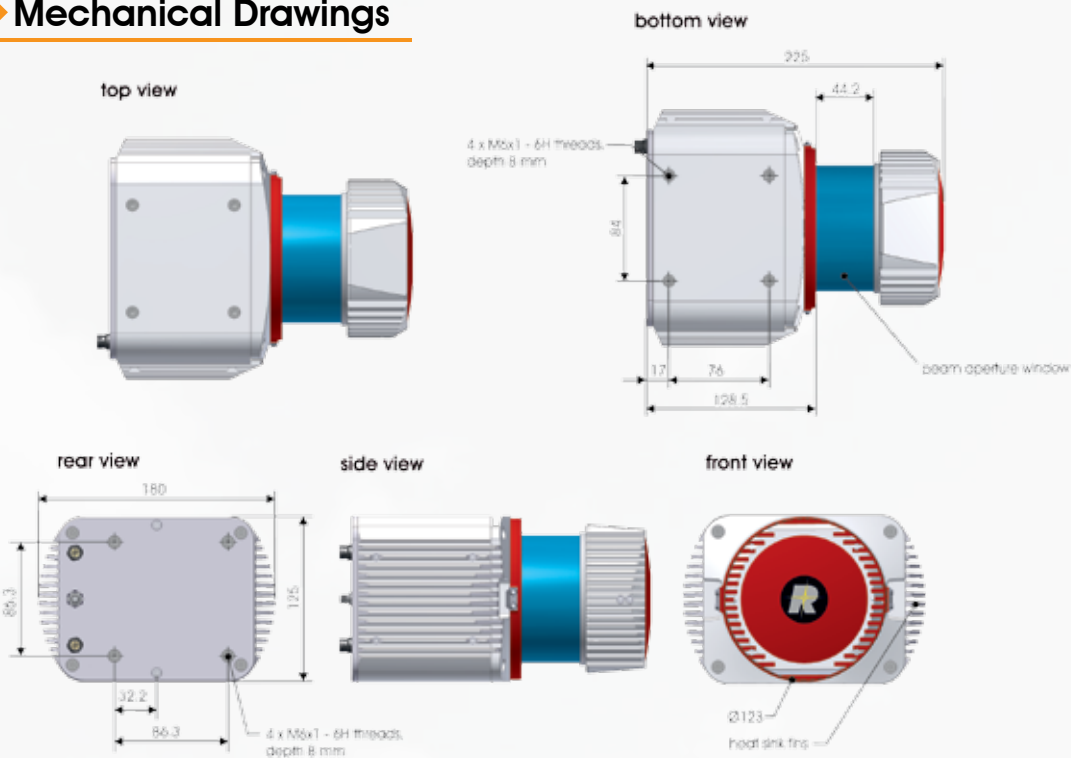


multiple target capability

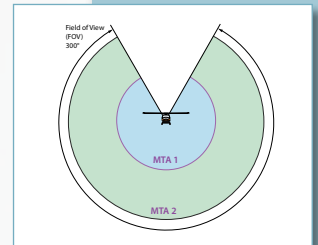
| | |
|---|-------------------------|
| Eye Safety Class | Laser Class 1 |
| Max. Range @ Target Reflectivity 60% | 920 m |
| Max. Range @ Target Reflectivity 20% | 550 m |
| Minimum Range | 5 m |
| Accuracy/Precision | 25 mm |
| Max. Effective Measurement Rate | up to 500,000 meas./sec |
| Field of View (FOV) | up to 300° |
| Max. Operating Flight Altitude AGL | 350 m / 1,150 ft |

Class 1 Laser Product according to IEC60825-1:2007

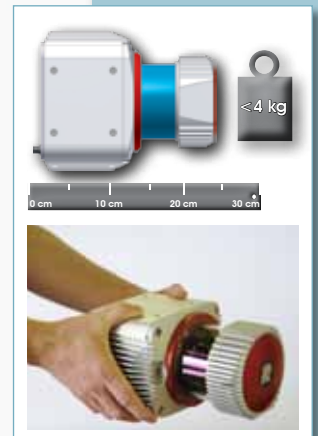
Mechanical Drawings



RIEGL VUX®-1 with external IMU-Sensor (optional)



Multiple-Time-Around data acquisition and processing



compact and lightweight

Highlights

- compact, rugged and very lightweight design
- easily mountable to professional UAS/UAV/RPAS
- high-accuracy ranging based on echo digitization and online waveform processing
- high laser pulse repetition rate up to 600 kHz for fast data acquisition
- fast scan speed up to 200 scans/sec.
- field of view up to 300° enabling data acquisition in narrow, complex environments
- multiple target capability – unlimited number of target echoes
- perfectly parallel scan lines
- regular point pattern
- electrical interfaces for GPS data string and Sync Pulse (1PPS)
- mechanical interface for IMU mounting
- scan data storage on internal 240 GByte SSD Memory
- integrated LAN-TCP/IP interface