

# RIEGL VQ-880-G

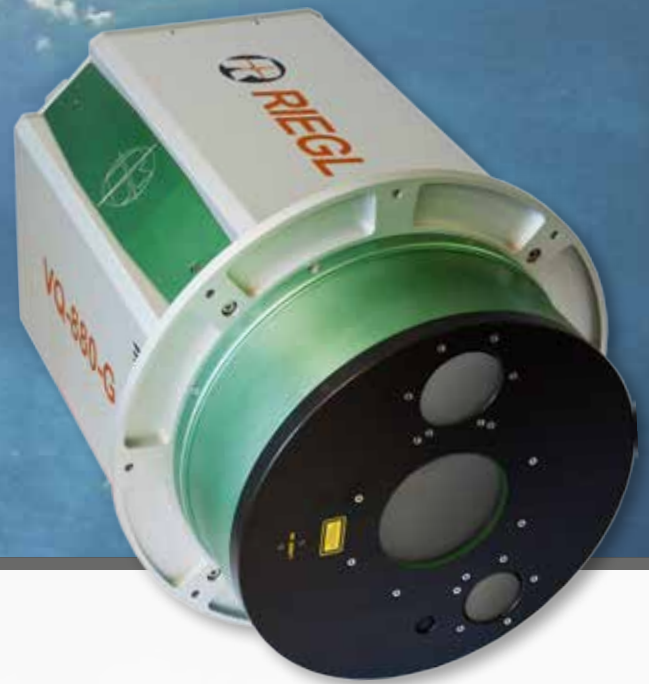


The **RIEGL VQ-880-G** is a fully integrated airborne laser scanning system for combined hydrographic and topographic surveying.

The system is offered with integrated and factory-calibrated high-end GNSS/IMU system and cameras.

An optionally integrated infrared laser scanner complements the data from the green laser scanner and supports the detection of the water surface.

The design allows flexible adaptation of these components to specific application requirements. Complemented by a **RIEGL** data recorder, the **RIEGL VQ-880-G** is a complete LIDAR system to be installed on various platforms in a straightforward way.



## Fully Integrated Topo-Hydrographic Airborne Laser Scanning System

### Typical Applications

- Coastline and Shallow Water Mapping
- Acquiring Base Data for Flood Prevention
- Habitat Mapping
- Measurement for Aggradation Zones
- Surveying for Hydraulic Engineering
- Hydro-Archeological-Surveying



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



RIEGL LMS GmbH, Austria

RIEGL USA Inc.

RIEGL Japan Ltd.

RIEGL China Ltd.

## RIEGL VQ-880-G Technical Data

-  combined topographic & hydrographic scanning
-  pulse repetition rate PRR (burst) 550kHz
-  waveform data output
-  online waveform processing
-  multiple target capability
-  not intrinsically eye safe

|  |  |
|--|--|
| <b>Eye Safety Class</b>  | Laser Class 3B*                          |
| <b>Hydrography:</b><br>typ. measurement range<br>typ. operating flight altitude AGL                    | 1,5 Secchi depth<br>600 m (1,970 ft.)    |
| <b>Topography:</b><br>max. range @ target reflectivity 20% / 60%<br>typ. operating flight altitude AGL | 2,500 m / 3,600 m<br>2,200 m (7,200 ft.) |
| <b>Minimum Range</b>   | 10 m                                     |
| <b>Accuracy / Precision</b>  | 25 mm                                    |
| <b>Effective Measurement Rate</b>  | up to 550,000 meas./sec                  |
| <b>Field of View / Scan Angle</b>  | ± 20° = 40°                              |

\*Class 3B Laser Product according to IEC60825-1:2007

## RIEGL VQ-880-G Installation Examples

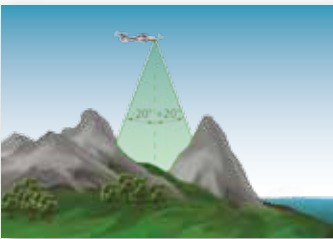


RIEGL VQ-880-G installed in the nose pod of fixed-wing aircraft **DIAMOND DA42 MPP**

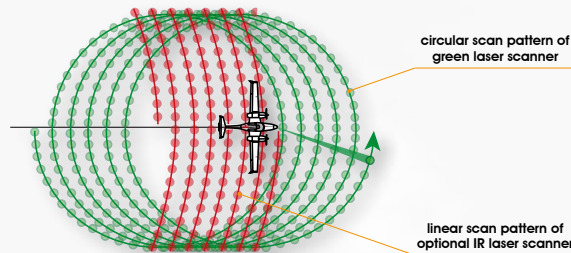


RIEGL VQ-880-G installed on GSM-3000 stabilized platform

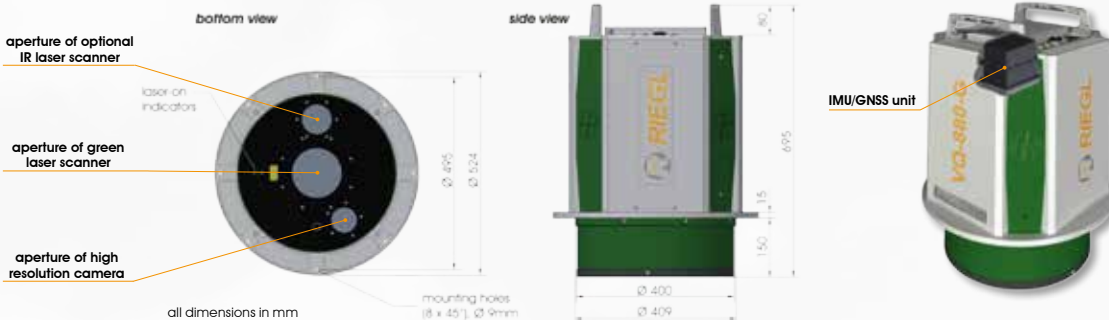
## RIEGL VQ-880-G Scan Pattern



forward & backward look for collecting data of vertical structures



## Mechanical Drawings



## Main Features

- designed for combined topographic and hydrographic airborne survey
- high accuracy ranging based on echo digitization and online waveform processing with multiple-target capability
- multiple-time-around processing for straightforward mission planning and operation
- concurrent full waveform output for all measurements for subsequent full waveform analysis
- high spatial resolution due to measurement rate of up to 550 kHz and high scanning speed of up to 160 scans/sec
- integrated inertial navigation system
- integrated digital camera
- optional integrated IR laser scanner
- compact and robust housing compliant with typical hatches in aircrafts and with stabilized platforms

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