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
RIEGL VQ-880-G Technical Data

combined topographic & hydrographic scanning  pulse repetition rate PRR (burst)  waveform data output

online waveform processing  multiple target capability  not intrinsically eye safe

Eye Safety Class  Laser Class 3B*
Hydrography:
  typ. measurement range  1.5 Secchi depth
  typ. operating flight altitude AGL  600 m (1,970 ft.)
Topography:
  max. range @ target reflectivity 20% / 60%
  typ. operating flight altitude AGL  2,500 m / 3,600 m
Minimum Range  10 m
Accuracy / Precision  25 mm
Effective Measurement Rate  up to 550,000 meas./sec
Field of View / Scan Angle  $\pm 20^\circ = 40^\circ$

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

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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