

**NEW**

# RIEGL VQ-1560i



World Premiere at  
INTERGEO 2016



The ultra high performance, fully integrated and calibrated Dual Channel Airborne Mapping System *RIEGL VQ-1560i* is well prepared for fulfilling the challenging demands of even complex airborne mapping missions.

Based on *RIEGL's* sophisticated waveform processing LiDAR technology, the system is capable of online waveform processing as well as full or smart waveform recording, thus delivering highly informative scan data for post processing.

The seamless integration of a high performance IMU/GNSS unit and up to two cameras complement the system.



## Dual Channel Waveform Processing Airborne LiDAR Mapping System

### Typical Applications

- Ultra Wide Area / High Altitude Mapping
- High Point Density Mapping
- Mapping of Complex Urban Environments
- City Modeling
- Glacier & Snowfield Mapping
- Mapping of Lakesides & River Banks
- Agriculture & Forestry
- Corridor Mapping



[www.riegl.com](http://www.riegl.com)



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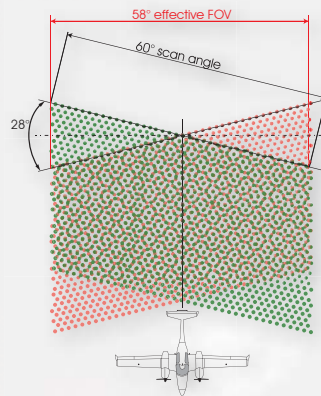
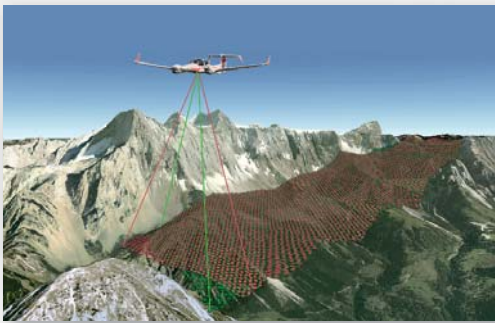
### RIEGL VQ-1560i Technical Data

max. operating flight altitude AGL	pulse repetition rate PRR (burst)	waveform data output
waveform processing	multiple target capability	not intrinsically eye safe

<b>eye safety class</b>	Laser Class 3B*
<b>max. range @ target reflectivity 60%</b>	5,800 m
<b>max. range @ target reflectivity 20%</b>	3,800 m
<b>minimum range</b>	50 m
<b>accuracy</b>	20 mm
<b>effective measurement rate</b>	up to 1.33 million meas./sec
<b>scan angle / effective field of view</b>	60° / 58°
<b>max. operating flight altitude AGL</b>	4,700 m / 15,500 ft

\*Class 3B Laser Product according to IEC60825-1:2014

### RIEGL VQ-1560i Scan Pattern



### RIEGL VQ-1560i Installation Examples



RIEGL VQ-1560i installed in the nose pod of fixed-wing aircraft **DIAMOND DA42 MPP**



RIEGL VQ-1560i installed on GSM-4000 gyro-stabilized platform to be used in a helicopter or fixed-wing aircraft

### RIEGL VQ-1560i Elements of Function and Operation

Labels for the sensor unit:

- aperture of primary camera (RGB)
- aperture of laser channel #2
- aperture of laser channel #1
- aperture of secondary camera
- mounting flange
- bay for IMU
- connectors for power supply and data interface
- desiccant cartridges
- cooling air outlets
- carrying handles

<b>main dimensions:</b>
715 mm x Ø 524 mm (height x diameter of mounting flange)

### Main Features

- high laser pulse repetition rate up to 2 MHz (burst)
- unrivaled scan pattern for best point spacing on the ground
- multiple-time-around-processing for resolving range ambiguities automatically
- digitization electronics offering online waveform processing as well as full and smart waveform recording
- waveform processing technology enabling multiple-target detection capability
- innovative forward/backward looking capability for collecting data of vertical structures
- straightforward flight planning and increased flight safety
- integrated inertial navigation system and GNSS receiver
- fiber coupled high speed data interface to single RIEGL Data Recorder
- integrated multi-megapixel aerial medium format camera, prepared for integration of a secondary camera

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