



RIEGL Group of Companies
RIEGL Firmengruppe



Innovation in 3D



RIEGL Canada Ltd.
Toronto, Canada

RIEGL USA Inc.
Headquarters North America
Orlando, Florida

RIEGL UK Ltd.
York, United Kingdom

RIEGL Austria
Headquarters
Horn near Vienna, Austria

RIEGL China Ltd.
Beijing, China

RIEGL Asia Pacific Ltd.
Hong Kong, China

RIEGL Japan Ltd.
Tokyo, Japan

RIEGL Australia Ltd.
Southport, Australia



RIEGL in Austria *RIEGL in Österreich*



Innovation in 3D



RIEGL Austria

Headquarters

Horn near Vienna, Austria

RIEGL Austria

Office Salzburg

RIEGL Austria

Office Vienna

RIEGL in Horn

The **RIEGL headquarters in Horn, Austria**, provides – all in all in a number of buildings – more than 74,000 square feet of working space for research, development, production, testing as well as for marketing, sales, training, and administration.

In addition, 350,000 square feet of open space are available and used for product testing.

Die RIEGL Zentrale in Horn bietet – verteilt auf verschiedene Gebäude – mehr als 6.850 m² Arbeitsfläche für Forschung, Entwicklung, Produktion und Tests sowie für Marketing, Vertrieb, Schulung und Verwaltung.

Weitere 32.500 m² Freifläche stehen für zusätzliche Tests zur Verfügung.



- 1 Prokschgasse 4**
Marketing, Sales,
Training & Administration
- 2 Riedenburgerstraße 56**
Research, Software Development
and UAV Sensor Production
- 3 Riedenburgerstraße 48**
Research, Hardware Development
and Scanner Production
- 4 Wiener Straße 20**
Mobile Laser Mapping Systems
Production
- 5 Riedenburgerstraße 54**
Mechanical Workshop



seit 1996
since 1996



seit 2006
since 2006



seit 2014
since 2014



seit 2021
since 2021

1 Prokschgasse 4



Marketing, sales, training, and administration are located in a marvelous building erected around 1900 in Prokschgasse 4, a cross street to Riedenburgstraße.

Marketing, Vertrieb, Schulung und Verwaltung befinden sich in einem wunderschönen, um 1900 errichteten Gebäude in der Prokschgasse 4, einer Querstraße zur Riedenburgstraße.

The special flair of the building is skillfully combined with the most modern equipment.

Das besondere Flair des Gebäudes verbindet sich gekonnt mit modernster Ausstattung.





On the roof of the building: This is also where the long-range capabilities of the terrestrial laser scanners are tested.

*Auf dem Dach des Gebäudes:
Hier werden auch die Messeigenschaften
der terrestrischen Laserscanner bei
größeren Entfernungen überprüft*

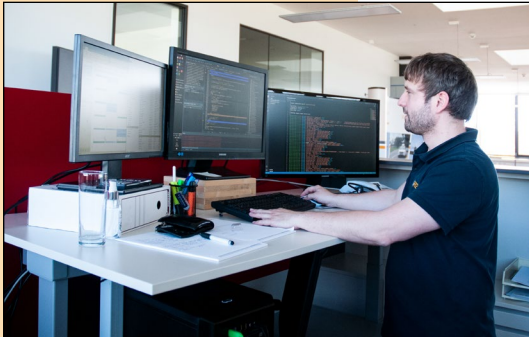
The new production building in Horn has been available since 2021, doubling the available operating space. More than 26,900 square feet of additional working space expand the necessary company infrastructure to enable an efficient and up-to-date R&D and production.

2021 konnte das neue, zusätzliche Produktionsgebäude in Horn bezogen werden. Mehr als 2.500 m² zusätzliche Arbeits- und Aufenthaltsfläche erweitern die Unternehmensinfrastruktur und ermöglichen so eine effiziente und zeitgemäße Forschung, Entwicklung und Produktion.

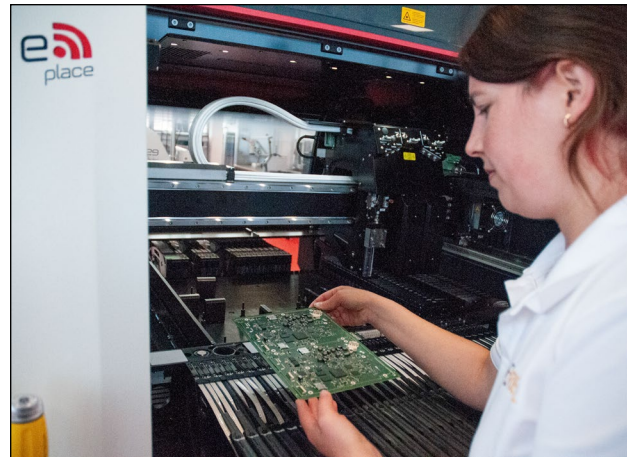


In addition to the best-equipped office rooms and conference rooms, the building houses a completely new production line. The heart of the facility are two fully automatic pick-and-place machines with upstream laser-based PCB marking and following quality control by an optical diagnostic device.

Neben den bestausgestatteten Büro- und Konferenzräumen beherbergt das Gebäude eine komplett neue Fertigungsstraße. Herzstück der Anlage sind die beiden vollautomatischen Hochleistungs-Bestückungsmaschinen mit vorgelagerter laser-gestützter Platinenbeschriftung und Qualitätskontrolle durch ein optisches Diagnosegerät.



Firmware and software department
Firmware- und Software-Abteilung



PCB (Printed Circuit Board) production
Leiterplatten-Produktion

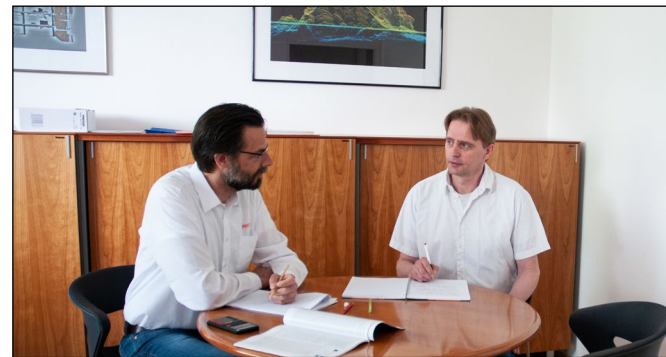


UAV-sensor production
UAV-Sensoren-Produktion



In Horn, Riedenburgstraße 48, Research, Hardware Development and Scanner Production are accommodated.

In Horn, Riedenburgstraße 48, sind Forschung, Hardware-Entwicklung und die Scanner-Produktion untergebracht.



Office RIEGL Research Forschungsgesellschaft mbH
Büro der RIEGL Research Forschungsgesellschaft mbH



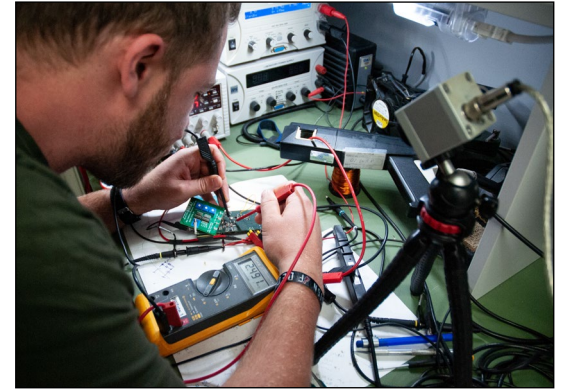
Bright, friendly offices, modern equipped workstations
Helle, freundliche Büros, modern ausgestattete Arbeitsplätze



High-quality technical equipment and facilities in the hands of highly qualified and motivated employees are the basis for the production of first-class innovative sensors.

Hochwertige technische Ausstattung und Ausrüstung in den Händen von hochqualifizierten und motivierten Mitarbeitern ist die Basis für die Herstellung erstklassiger innovativer Sensoren.

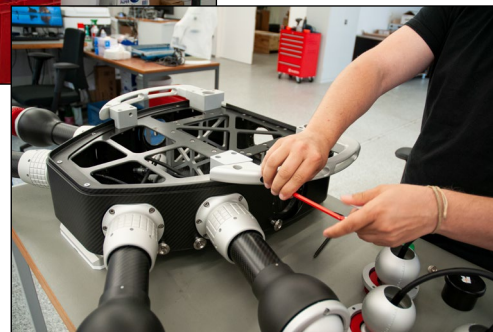
A look into scanner production | *Blick in die Scanner-Produktion*





Housed in a rented old building, the production of RIEGL's mobile surveying systems has sufficient space to ensure an efficient workflow.

In einem angemieteten Altbau untergebracht steht der Produktion der mobilen RIEGL Vermessungssysteme ausreichend Platz zur Verfügung, um einen effizienten Arbeitsablauf zu gewährleisten.



5 Riedenburgstraße 54



Directly between the buildings in Riedenburgstraße 48 and 56, the mechanical workshop is situated. Here, the CNC production is located and enables RIEGL to manufacture complex mechanical components for the scanners.

Direkt zwischen den Gebäuden in der Riedenburgstraße 48 und 56 befindet sich die mechanische Werkstatt. Hier ist die CNC-Fertigung untergebracht und ermöglicht es RIEGL, komplexe Mechanikteile für die Scanner herzustellen.



Sales Offices Vienna & Salzburg | Büros Wien & Salzburg Airfield Styria | Flugfeld Steiermark



In order to offer our international customers, most of whom arrive in Vienna and Salzburg, a conveniently located meeting point for initial discussions and meetings, we have our own offices in Vienna and Salzburg.

Additionally, a RIEGL Airfield for verification of RIEGL's UAV LiDAR sensors or RiCOPTER's performance – but also for demo flights – is available in Styria.

Um unseren internationalen Kunden, die größtenteils in Wien und Salzburg ankommen, für erste Besprechungen und Treffen einen angenehm gelegenen Treffpunkt zu bieten, stehen in Wien und Salzburg eigene Büros zur Verfügung.

Zusätzlich steht zur Überprüfung der Leistungsdaten von RIEGL UAV LiDAR Sensoren und UAVs sowie für Demoflüge ein eigenes Flugfeld in der Steiermark zur Verfügung.



Office Vienna: Working space for sales officers and software engineers
Arbeitsplätze für Verkaufs- und Softwaremitarbeiter im Büro Wien



Office Salzburg
Büro Salzburg



Airfield for UAV tests and demo flights, Styria
Flugfeld für UAV Tests und Demoflüge, Steiermark



RIEGL Offices Worldwide
RIEGL Niederlassungen weltweit



Innovation in 3D



RIEGL Canada Ltd.
Toronto, Canada

RIEGL USA Inc.
Headquarters North America
Orlando, Florida

RIEGL UK Ltd.
York, United Kingdom

RIEGL Austria
Headquarters
Horn near Vienna, Austria

RIEGL China Ltd.
Beijing, China

RIEGL Asia Pacific Ltd.
Hong Kong, China

RIEGL Japan Ltd.
Tokyo, Japan

RIEGL Australia Ltd.
Southport, Australia





RIEGL USA
Office Los Angeles,
California

RIEGL Canada Ltd.
Toronto, Canada

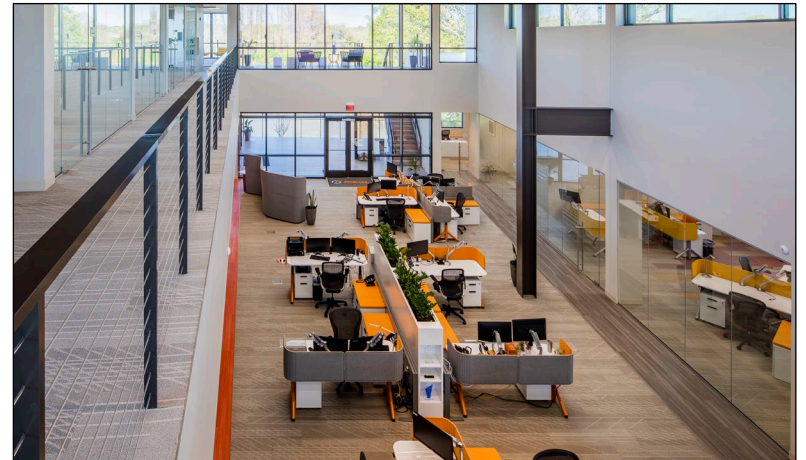
RIEGL USA Inc.
Headquarters North America
Orlando, Florida





RIEGL USA Inc. under the leadership of Johannes Riegl Jr. is responsible for RIEGL's North American business. In November 2021, we moved to the new **North American headquarters in Winter Garden, Orlando, Florida.**

Für das Nordamerika-Geschäft zeichnet RIEGL USA Inc. unter der Leitung von Johannes Riegl jr. verantwortlich. Im November 2021 wurde die neue Nordamerika-Zentrale in Winter Garden, Orlando, Florida, eröffnet.





At **18,500 square feet** of modern office space on a total combined land size of 24 acres for sensor testing and calibration, the *RIEGL USA* team looks forward to provide optimal service to customers and prospects.

In einem modernst ausgestatteten Bürogebäude mit 1.720 m² auf einem mehr als 9 Hektar großen Grundstück, welches für Sensortests und Kalibrierung genutzt wird, freut sich das Team von RIEGL USA darauf, Kunden und Interessenten optimal betreuen zu können.



Modern and functional interior
Moderne und funktionelle Einrichtung



RIEGL Laser Scanners & Scanning Systems

RIEGL Laserscanner & Scanning-Systeme



Innovation in 3D



High resolution true coloured point cloud of Clifford's Tower, York



NEW RIEGL VZ-600i

RIEGL's latest generation of professional Terrestrial Laser Scanners stands out with extreme versatility, high productivity, ultimate performance and additional mobility.

- broad range capability (0.5 m up to 1000 m)
- 5 sec scan time for low resolution overview scans
- 30 sec scan time for 6 mm resolution @ 10 m distance
- 60 scan positions per hour (with image acquisition)
- 3D position accuracy up to 3 mm @ 50 m
- precise real-time onboard registration
- 3 internal cameras & GNSS receiver
- weight 6 kg / 13 lbs
- prepared for mobile use





RIEGL VZ-i / VZ Series

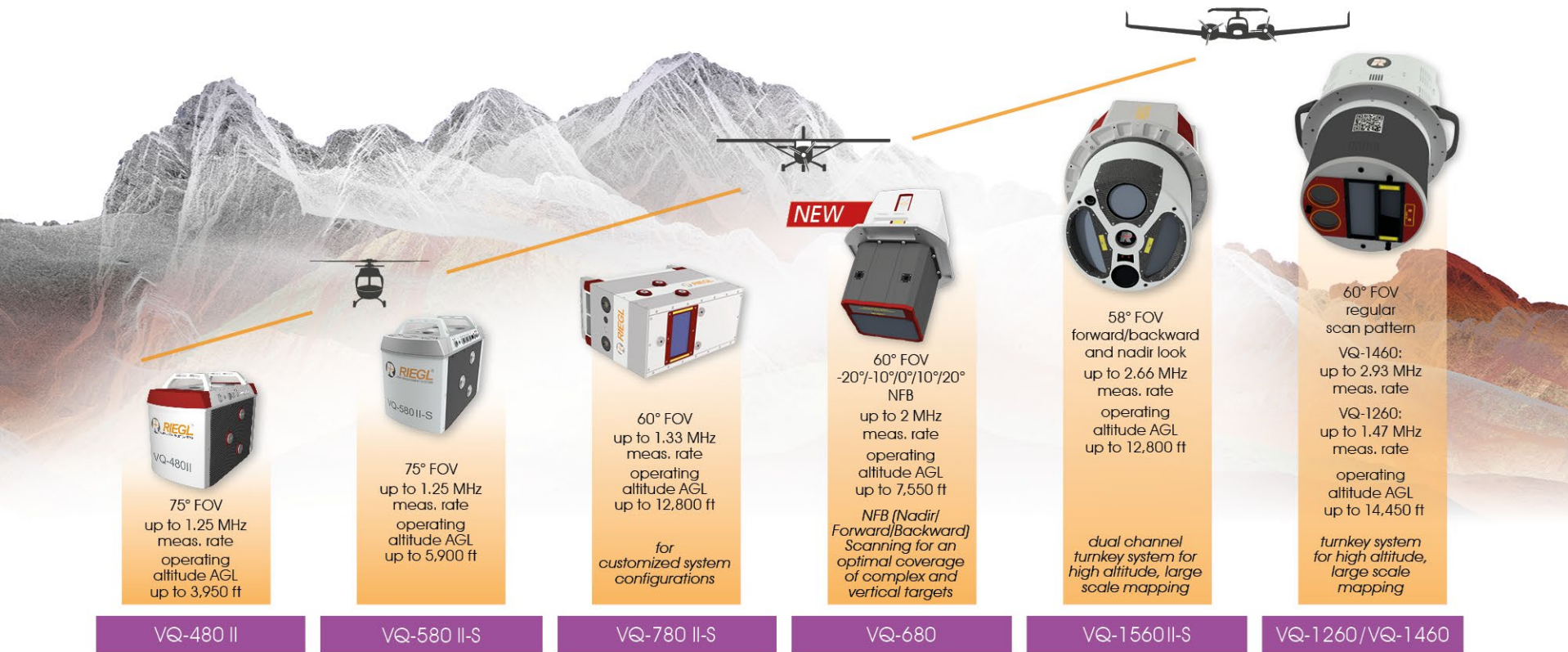
Ultra high-performance 3D terrestrial laser scanning systems for more than 400 scans in just an 8-hour workday!


RIEGL VZ-400i / VZ-2000i

- up to 1.2 MHz PRR, up to 500,000 meas./sec
- range up to 800 / 2,500 m
- accuracy / precision: 5 / 3 mm


RIEGL VZ-4000 / VZ-6000

- up to 300 kHz PRR
- range up to 4,000 / 6,000 m
- accuracy / precision: 15 / 10 mm






75° FOV
up to 1.25 MHz
meas. rate
operating
altitude AGL
up to 3,950 ft




75° FOV
up to 1.25 MHz
meas. rate
operating
altitude AGL
up to 5,900 ft



60° FOV
up to 1.33 MHz
meas. rate
operating
altitude AGL
up to 12,800 ft

*for
customized system
configurations*


NEW



60° FOV
-20°/-10°/0°/10°/20°
NFB


up to 2 MHz
meas. rate
operating
altitude AGL
up to 7,550 ft

*NFB (Nadir/
Forward/Backward)
Scanning for an
optimal coverage
of complex and
vertical targets*



58° FOV
forward/backward
and nadir look
up to 2.66 MHz
meas. rate
operating
altitude AGL
up to 12,800 ft

*dual channel
turnkey system for
high altitude, large
scale mapping*



60° FOV
regular
scan pattern

VQ-1460:
up to 2.93 MHz
meas. rate

VQ-1260:
up to 1.47 MHz
meas. rate

operating
altitude AGL
up to 14,450 ft

*turnkey system
for high altitude,
large scale
mapping*

VQ-480 II

VQ-580 II-S

VQ-780 II-S

VQ-680

VQ-1560 II-S

VQ-1260/VQ-1460

for surveying at mid flight altitudes

e.g. corridor mapping, city modeling, agriculture and forestry

for surveying at high flight altitudes

e.g. wide area mapping of complex environments



Two RIEGL planes are available for verification of RIEGL airborne laser scanners and laser scanning systems as well as for demo flights.

Zwei RIEGL-eigene Flugzeuge stehen für die Überprüfung der Leistungsdaten von RIEGL airborne Laserscannern und Systemen - aber auch für Demoflüge - bereit.



NEW RIEGL VQ-680

High-End Online Waveform Processing Airborne LiDAR Scanner with NFB (Nadir/Forward/Backward)-Scanning

- high pulse repetition rates of up to 2.4 MHz
- up to 2 MHz measurements on the ground
- forward / nadir / backward scan directions at +20 / +10 / 0 / -10 / -20 degrees
- wide field of view of 60 degrees
- excellent atmospheric clutter suppression
- prepared for the integration of up to 6 high resolution RGB/NIR cameras
- optimized for interfacing with typical hatches and stabilized platforms



NEW RIEGL VQ-680 OEM

High-Performance Online Waveform Processing Airborne LiDAR Scanning Module for Integration with Third-Party Camera Systems

- high pulse repetition rates of up to 2.4 MHz
- up to 2 MHz measurements on the ground
- forward / nadir / backward scan directions at +20 / +10 / 0 / -10 / -20 degrees
- wide field of view of 60 degrees
- excellent atmospheric clutter suppression





RIEGL VQ-1260 / VQ-1460

Waveform Processing LiDAR Systems for High Point Density & Ultra-Wide Area Mapping

- high pulse repetition rates of up to 2.2 / 4.4 MHz
- up to 1.47 / 2.93 million measurements per second on the ground
- best point distribution for optimum target resolution
- excellent atmospheric clutter suppression
- on-board graphical user interface for easy access to primary scanner parameters
- integrated inertial measurement unit and GNSS receiver
- prepared for the integration of up to two high resolution RGB/NIR cameras
- optimized for interfacing with typical hatches and stabilized platforms



RIEGL VQ-1560 II-S

Dual Channel Waveform Processing LiDAR System for High Point Density & Ultra-Wide Area Mapping

- high laser pulse repetition rate up to 4 MHz
- up to 2.66 million measurements per second on the ground
- offers highly efficient data acquisition at a wide range of point densities
- enables Multiple-Time-Around (MTA) processing of up to 45 pulses simultaneously in the air



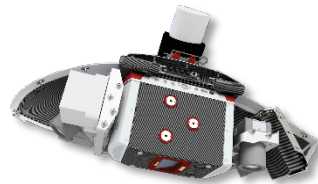


RIEGL's Cessna T206H test plane equipped with VQX-1 wing pod

NEW RIEGL VQX-1 Wing Pod

Fully Integrated, Easily Mountable /Dismountable Airborne Laser Scanning Solution

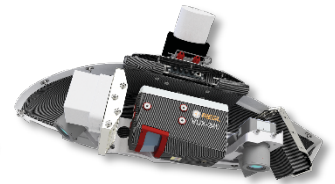
- **robust and reliable wing pod:**
the wing pod is designed to carry a wide range of RIEGL sensors (VQ-480 II, VQ-580 II(-S), VUX-240²⁴, VUX-120²³, VUX-160²³ or VQ-840-G/-GL), an appropriate high-end IMU/GNSS system **and up to three high-resolution cameras**
- ready for user-friendly installation and straightforward application to facilitate various airborne mapping applications
- uncompromising lightweight construction
- quick installation and removal (including power cabling)
- GNSS antenna to be mounted appropriately
- **EASA STC for Cessna 172-, 182- and 206- series**
- versatile configurability



RIEGL VQX-1 with VQ-580 II (-S)



RIEGL VQX-1 with VQ-840-G



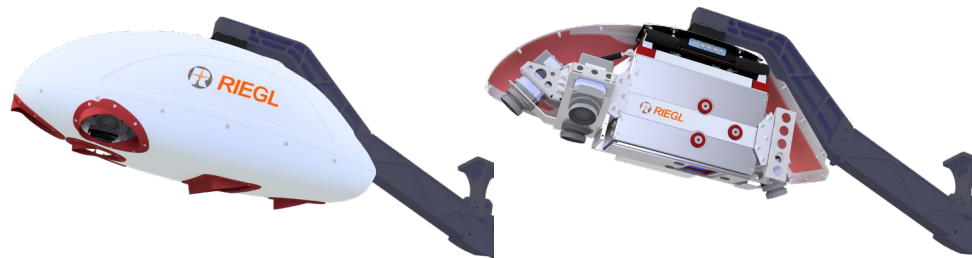
RIEGL VQX-1 with VUX-240²⁴



NEW RIEGL VQX-2 Helicopter Pod

Helicopter Pod for Airborne Laser Scanning (ALS)

- **robust and reliable helicopter pod:**
the pod is designed to carry a wide range of RIEGL sensors (VUX-120²³, VUX-160²³, VUX-180²⁴, VUX-240²⁴, VQ-480 II, VQ-580 II-S, VQ-780 II-S), an appropriate high-end IMU/GNSS system and **up to five high-resolution cameras**
- uncompromising lightweight construction
- quick installation and removal
- turn-key solution ready to install (including power cabling)
- GNSS antenna to be mounted appropriately
- Minor Change Approval for Airbus Helicopters AS350 series





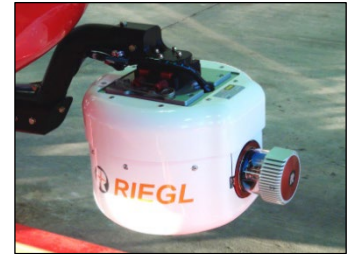
RIEGL Helicopter Pods for Airborne Laser Scanning

- robust and reliable airborne scanner carrying platform
- full mechanical and electrical integration of sensor system components into aircraft fuselage
- quick installation & removal using the existing mounts (e.g. AirFILM Camera System); mounting and operation at end user's responsibility
- area exposed to wind approx. 0,114 m²

RIEGL VP-1 with RIEGL VUX-1

RIEGL VUX-1LR²² or VUX-1UAV²² LiDAR Sensor, IMU/GNSS unit with antenna, control unit, and digital camera(s) fully integrated

- total weight approx. 20 kg



RIEGL VPX-1 with VUX-240²⁴

RIEGL VUX-240²⁴ LiDAR Sensor, control unit, up to 3 Sony Alpha digital cameras and a high-end IMU/GNSS system with antenna fully integrated

- total weight approx. 20 kg

ENHANCED PERFORMANCE



150 scan lines/sec
300 kHz eff. meas. rate
up to 4 cameras including spherical camera
typ. point density 550 points/m² on pavement surface @ 80 km/h

VMY-1

ENHANCED PERFORMANCE



300 scan lines/sec
600 kHz eff. meas. rate
up to 4 cameras including spherical camera
typ. point density 1,100 points/m² on pavement surface @ 80 km/h

VMY-2



250 scan lines/sec
1.8 MHz eff. meas. rate
up to 4 cameras including spherical camera
multiple swivel positions for improved scan pattern in multi-pass applications
typ. point density 3,200 points/m² on pavement surface @ 80 km/h

VMQ-1HA



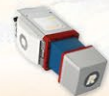
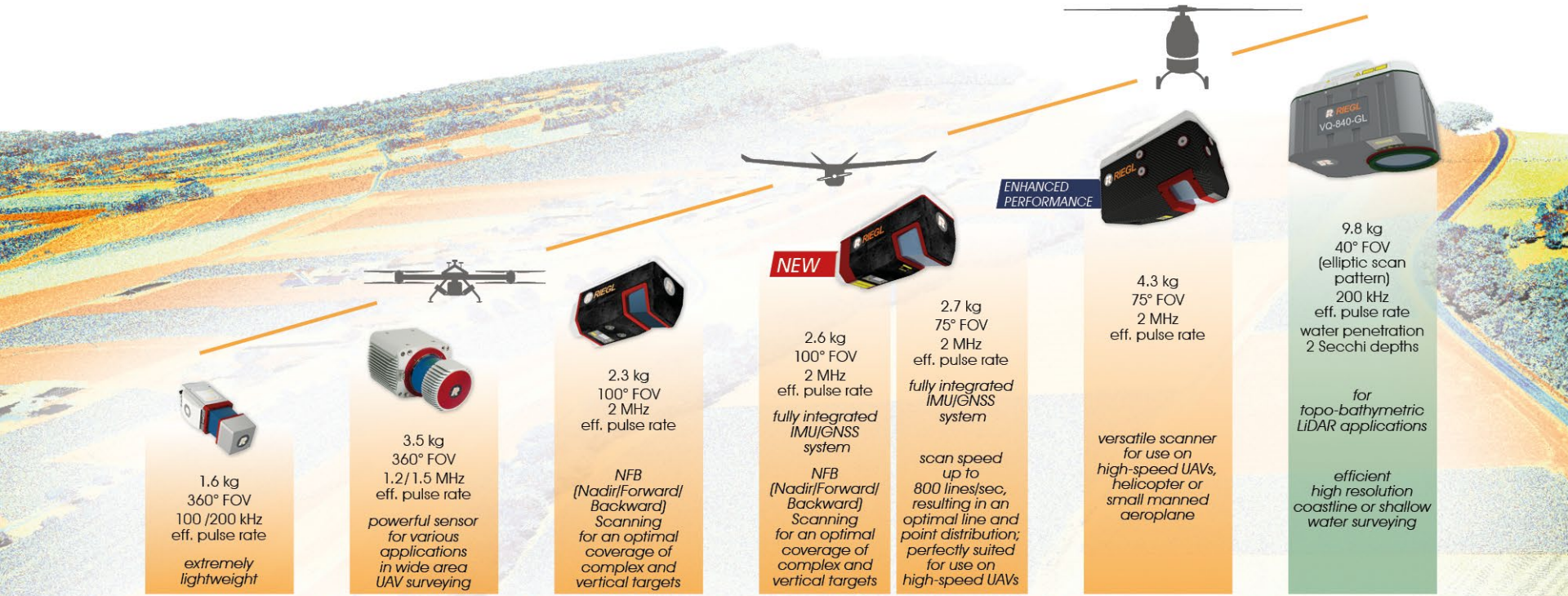
500 scan lines/sec
3.6 MHz eff. meas. rate
up to 9 cameras including spherical camera and up to 2 highspeed pavement cameras
simultaneous capturing of spherical and directional imagery with a total resolution of up to 1370 MP/sec
typ. point density 6,400 points/m² on pavement surface @ 80 km/h

VMX-2HA

A broad system portfolio serving all levels of applications:

transportation infrastructure mapping, city modeling, GIS mapping & asset management, road surface management, open-pit mine surveying, rapid capture of construction sites and bulk material, HD mapping for autonomous vehicles





1.6 kg
360° FOV
100 /200 kHz
eff. pulse rate
extremely lightweight



3.5 kg
360° FOV
1.2 / 1.5 MHz
eff. pulse rate
powerful sensor for various applications in wide area UAV surveying



2.3 kg
100° FOV
2 MHz
eff. pulse rate

NFB
(Nadir/Forward/Backward)
Scanning for an optimal coverage of complex and vertical targets



NEW
2.6 kg
100° FOV
2 MHz
eff. pulse rate
fully integrated IMU/GNSS system

NFB
(Nadir/Forward/Backward)
Scanning for an optimal coverage of complex and vertical targets

scan speed up to 800 lines/sec, resulting in an optimal line and point distribution; perfectly suited for use on high-speed UAVs

ENHANCED PERFORMANCE



4.3 kg
75° FOV
2 MHz
eff. pulse rate

versatile scanner for use on high-speed UAVs, helicopter or small manned aeroplane



9.8 kg
40° FOV
(elliptic scan pattern)
200 kHz
eff. pulse rate
water penetration
2 Secchi depths

for topo-bathymetric LIDAR applications

efficient high resolution coastline or shallow water surveying

miniMUX-1 UAV, /-3UAV

VUX-1 UAV²² /-LR²²

VUX-120²³

VUX-160²³ / **NEW** VUX-180²⁴

VUX-240²⁴

VQ-840-GL

for applications using **low-flying small or mid-sized multi-rotor UAVs**
e.g. mining, topography, forestry, landslide and avalanche monitoring

for applications using **fixed-wing UAVs**
e.g. corridor mapping, city modeling

for applications using **higher-flying large UAVs or helicopters**
e.g. mapping with the need of detailed high-resolution data



Distributed, supported
and serviced by

RiCOPTER[®]
... A RIEGL[®] COMPANY

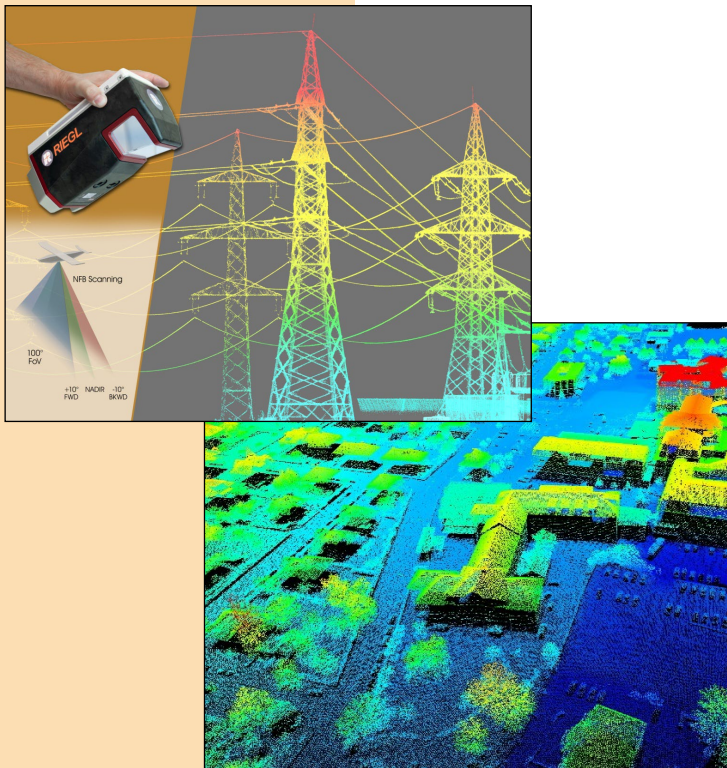


NEW RIEGL VUX-180²⁴

UAV LiDAR Sensor for High-Speed Corridor Mapping

- scan speed up to 800 lines/second
- laser pulse repetition rate up to 2.4 MHz
- measurement rate up to 2,000,000 meas./sec
- operating flight altitude up to 980 m / 3,250 ft
- Field of View up to 75°
- compact & lightweight (2.7 kg / 5.9 lbs)
- cutting edge *RIEGL* technology providing:
 - echo signal digitization
 - multiple target capability
 - online waveform processing
 - multiple-time-around processing
- easily mountable to unmanned platforms (UAVs) and small manned aircraft
- mechanical and electrical interface for IMU/GNSS integration
- interfaces for up to 5 external cameras
- scan data storage on internal SSD Memory
- removeable CFAST® memory card





RIEGL VUX-120²³ / VUX-160²³

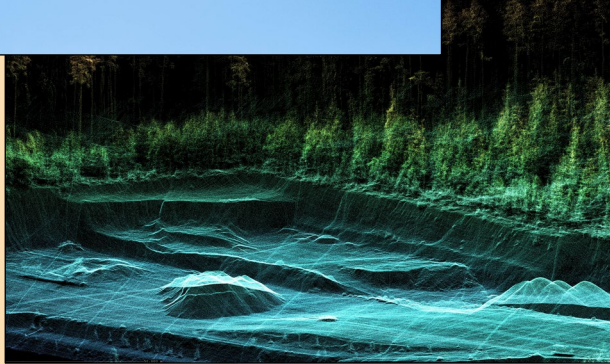
- **NFB (Nadir/Forward/Backward) Scanning for unrivaled completeness of scan data even on vertical structures and narrow canyons**
- laser pulse repetition rate up to 2.4 MHz
- measurement rate up to 2,000,000 meas./sec
- scan speed up to 400 lines/second
- operating flight altitude up to 720m (2,350 ft) / 900m (2,950 ft)
- field of view up to 100°
- interfaces for up to 2 / 5 external cameras



RIEGL VUX-240²⁴

- **easily mountable to UAVs or to helicopters, gyrocopters, and other small manned aircrafts**
- laser pulse repetition rate up to 2.4 MHz
- measurement rate up to 2,000,000 meas./sec
- scan speed up to 600 lines/second
- operating flight altitude up to 1,430m / 4,700 ft
- field of view up to 75°
- interfaces for up to 4 optional cameras





NEW RIEGL RiLOC

Location & Orientation Component

RIEGL's entry-level IMU/GNSS solution for miniVUX series laser scanners

Specifications

- MEMS-based IMU + GNSS system
- multiband GNSS: L1/L2/L5 (GPS, GLONASS, Galileo, BeiDou)
- IMU sampling rate: > 800 Hz
- IMU angular rate range: ± 500 °/s
- IMU acceleration range: ± 8 g
- RiLOC weight / dimensions: **0.36 kg** / 99 x 85 x 43 mm
- total system weight: **1.75 kg** / 4.2 lbs



Highlights

- **fully integrated system**
- **no 3rd party hardware needed**
- **no 3rd party software required**



2 Secchi depth
weight < 10 kg
ideal for integration
on smaller UAVs

VQ-840-GL



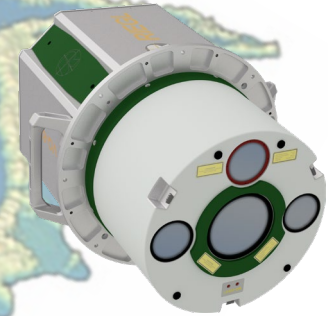
2 Secchi depth
weight 12-15 kg
(depending on
configuration)
ideal for integration
into UAVs with
higher payload
capacity and
helicopters

VQ-840-G



1.5 Secchi depth
weight approx. 70 kg
form factor
optimized for
integration into
helicopters

VQ-880-GH



1.5 Secchi depth
weight approx. 65 kg
optimized for
integration into fixed
wing aircraft
compatible with
stabilized mounting
platforms

VQ-880-G II

A broad system portfolio serving all levels of applications:

coastline and shallow water mapping, acquiring base data for flood prevention, measurement for aggradation zones, habitat mapping, surveying for hydraulic engineering, hydro-archaeological-surveying, river surveying, repeated survey of water reservoirs

RIEGL offers powerful scanners and scanning solutions for various fields of industrial applications. All these are exceptionally compact, reliable, and provide highest performance and longevity even in harsh and demanding environments.

VZ-200 3D Laser Scanner

3D laserscanner for process automation of stackers and reclaimers, measurement of stock piles and bulk material, surveying and monitoring in topography and mining (e.g. BERM-monitoring)

PH-VUX

protective housing for RIEGL VUX-1 Series laser scanners

RIEGL PH-400i/2000i and RIEGL PH-4000/6000-SRH

- rugged and robust industrial protective housing for RIEGL V-Line Terrestrial Laser Scanners
- hermetically-sealed, with thermo-electric coolers and forced-air cooling
- industrial standard connectors and supply cables
- application-specific interface and software solutions





Thank you for your attention!

Danke für Ihre Aufmerksamkeit!

