NEW RIEGL VZ®-2000i

Based on a future-oriented, innovative new processing architecture, internet connectivity, and *RIEGL's* latest waveform processing LiDAR technology the *RIEGL* VZ-2000i Long Range 3D Laser Scanning System combines proven user friendliness in the field with fast and high accurate data acquisition.

The processing architecture enables execution of different background tasks (such as point cloud registration, geo-referencing, orientation via integrated Intertial Measurement Unit, etc.) on-board in parallel to the acquisition of scan data. *RIEGL's* unique Waveform-LiDAR technology enables such high speed, long range, high accuracy measurements even in poor visibility and demanding multi-target situations and delivers reliable data even in harsh environments like open-pit mining.

NEW RIEGL VZ®-2000i

Long Range, Very High Speed 3D Terrestrial Laser Scanning System

Typical Applications

• Topography and Mining • Natural Hazard Surveying • Construction Site Monitoring • Archeology & Cultural Heritage Documentation • City Modeling • Tunnel Surveying • Civil Engineering • Research

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RIEGL®

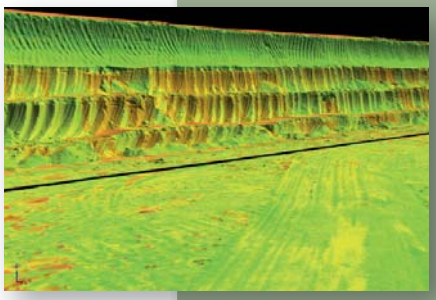
RIEGL LMS GmbH, Austria | *RIEGL USA Inc.* | *RIEGL Japan Ltd.* | *RIEGL China Ltd.*

NEW RIEGL VZ®-2000i

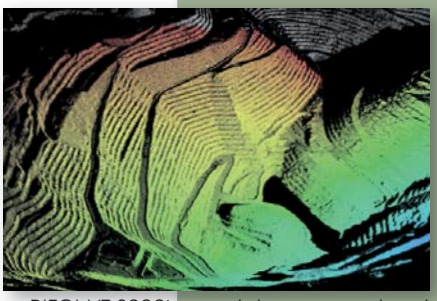
RIEGL VZ-2000i Main Features

- range up to 2,500 m, accuracy 5 mm
- orientation sensor for pose estimation
- advanced flexibility through support for external peripherals and accessories, e.g. integrated GNSS unit for high accurate RTK solution, SIM Card slot for 3G/4G LTE, WLAN, LAN, USB
- cloud connectivity via LAN, Wi-Fi, and 3G/4G LTE
- easy to operate even in harsh environments (protection class IP64)
- fully compatible with the *RIEGL* VMZ Hybrid Mobile Laser Mapping System
- RiSCAN PRO standard processing software (included), RiMINING software package offering an optimized workflow for open-pit mining (optional)

RIEGL VZ-2000i in the field



RIEGL VZ-2000i monitoring in open-pit mining



RIEGL VZ-2000i scan data, range-colored

NEW Automatic On-board Registration

With two processors on-board, the *RIEGL* VZ-2000i is able to perform different processes in real-time such as automatic on-board registration in parallel to the scan data acquisition.

Processor 1	Processor 2
• **scan data acquisition** • acquisition of photographs • pose estimation (using GNSS/IMU/environment sensors)	• conversion of scan data into *RIEGL* data base • on-board multiple time around resolution • **registration of scan data** as a background process

RIEGL VZ-2000i Technical Data

2.5 km max. measurement range

1.2MHz pulse repetition rate PRR

online waveform processing

Wi-Fi and 3G/4G LTE

optional optional camera

multiple target capability

Laser Class 1

Laser Pulse Repetition Rate PRR (peak)	**50 kHz**	**100 kHz**	**300 kHz**	**600 kHz**	**1,200 kHz**
Max. Effective Measurement Rate (meas./sec)	21,000	42,000	125,000	250,000	500,000
Max. Measurement Range (ρ ≥ 90 %)	2,500 m	1,850 m	1,100 m	800 m	600 m
Max. Measurement Range (ρ ≥ 20 %)	1,300 m	950 m	540 m	380 m	290 m
Minimum Range	2 m	1.5 m	1.5 m	1.0 m	1.0 m
Accuracy / **Precision**	5 mm / 3 mm				
Field of View (FOV)	100° vertical / 360° horizontal				
Eye Safety Class	Laser Class 1 (eyesafe)				
Main Dimensions (width x height) / **Weight**	206 mm x 308 mm / 9.8 kg				

Further details to be found on the current *RIEGL* VZ-2000i Data Sheet.

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