

The *RIEGL* VMX-450-RAIL



The proven, fully integrated high speed mobile laser scanning system *RIEGL* VMX-450, including a lifting frame for crane installation and software interface to SiRailScan, now optimized for the demanding field of railway applications.

World Premiere at
RIEGL LIDAR 2013

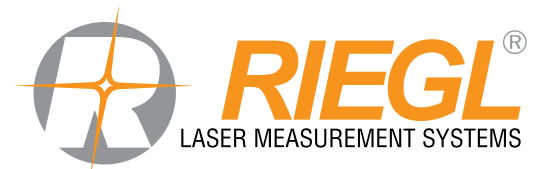
The **NEW** *RIEGL* VMX-450-RAIL Package

Typical Applications

- Clearance Analysis with Easy and Customized Documentation
- Collision Detection with Train Passage Simulations
- Axis Based Measurements for Distances in Rail Accompanying System
- Surface Monitoring for Tunnel Analysis



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RIEGL LMS GmbH, Austria







RIEGL USA Inc.

RIEGL Japan Ltd.

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RIEGL VMX-450-RAIL Technical Data

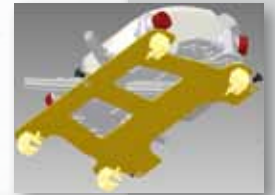
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|  eye safe operation at Laser Class 1 |  pulse repetition rate PRR (peak) 1.1 MHz |  optional digital camera |
|  max. measurement range 800m |  multiple target capability |  online waveform processing |

Eye Safety Class	Laser Class 1*
Max. Range Target Reflectivity 80% / 10%	800 m / 300 m
Minimum Range	1.5 m
Accuracy	8 mm
Precision	5 mm
Effective Measurement Rate	up to 1,100,000 meas./sec
Field of View FOV	360°

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



lifting frame for crane installation



mounting frame interface to different rail cars



automated extraction of axis based analysis for detection of minimum distance to platform corner



collision detection with train passage simulations based on extracted rail axis

State-of-the Art Rail Road Track Survey

RIEGL VMX-450-RAIL
Mobile Laser Scanning System

- acquisition of a 360° field of view recording trackage, overhead wiring, rail heads, and the complete periphery, even signs in orthogonal to running direction
- dense and feature-rich point clouds
- fully-calibrated measuring head for quick system setup
- optional integrated camera system and open interfaces to various external sensors
- allows for a high degree of automation in surveying and processing

TECHNET-RAIL SiRailScan
3D Rail- and Road-Processing Software

- high precision analyzing tools for the actual geometry
- main outcomes: clearance analysis, collision detection with train passage simulations (even with complex train shapes), axis based measurements for distances in rail accompanying system, surface monitoring for, e.g. tunnel analysis
- SiRailManager: program to display and manage complete national rail track databases.

NEW Features

- new lifting frame for crane installation
- new mechanical interface to railcars
- main cable: different lengths for coupling
- optical distance measurement indicator (technet-rail 2010)
- new control module (19 inch, rack-based), new power supply
- improved software settings for better rail point cloud data
- new software interface to SiRAILScan / technet-rail 2010 (*.pos)
- „Transformation Table“ representing differences between planned and measured rail axis
- new RiPROCESS data filter to speed up workflow

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