

The *RIEGL* VMX-450-RAIL



The well proven, fully integrated high speed Mobile Laser Scanning System *RIEGL* VMX-450 is available in an optimized package for railway applications, including

- special hardware for mounting on rail cars
- optimized scanner parameters for the demanding field of railway applications
- interfaces to Third-Party Rail-Processing Software Packages



RIEGL VMX-450-RAIL

Typical Applications

- Rapid Safe Data Capture with Minimal Disruption to Network Schedules
- Rail Infrastructure Asset Management
- As-Built Surveying
- Track and Infrastructure Monitoring
- Clash Detection Simulation and Clearance Analysis
- Railway Planning and Engineering



www.riegl.com



RIEGL LMS GmbH, Austria

RIEGL USA Inc.

RIEGL Japan Ltd.

RIEGL China Ltd.

VMX-450-RAIL

- easy to mount lifting frame for fast installation by crane
- additional mechanical interface for quick installation on various rail cars
- main cable extensions for safe remote operation
- optical distance measurement indicator optimized for railways
- specially designed 19 inch rack based control module for fixed installation in a rail car
- additional 230 V AC uninterruptible main power supply for quick and reliable operation

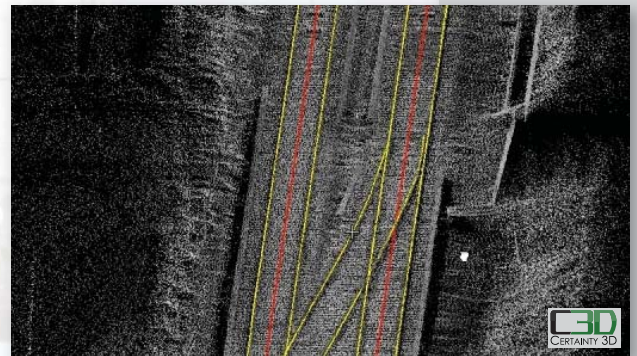
State-of-the-Art Rail Track Surveying

RIEGL VMX-450-RAIL Mobile Laser Scanning System

- enables the capture of the complete rail corridor, including overhead wiring, rail heads, and the complete periphery, even signs orthogonal to running direction
- high-end system performance supports rapid data acquisition of dense point clouds
- fully-calibrated measuring head for quick and flexible system setup
- optional integrated camera system and open interfaces to various external sensors
- RIEGL Software provides a high degree of automation in surveying and processing



mounting frame interface to different railcars



rail specific post processing with various third party software possible (shown example data: Certainty 3D)

RIEGL VMX-450 Technical Data

Scanning Performance

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

IMU/GNSS Performance

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

Position (absolute)	typ. 20 - 50 mm
Position (relative)	typ. 10 mm
Roll & Pitch	0.005°
Heading	0.015°

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



RIEGL VMX-450 Data Sheet



RIEGL VQ-450 Data Sheet



RIACQUIRE Data Sheet



RIPROCESS Data Sheet