



For further information on the ROMDAS road measurement system please visit www.romdas.com

Email: info@romdas.com
Phone: + 64.9.87.7703
Fax: +64.9.87.7704

ROMDAS
Manufactured by
Data Collection Ltd.
New Zealand

*providers of innovative technology for
measuring and managing roads*

© 2011 Data Collection Ltd.



ROMDAS-LCMS Laser Crack Measurement System

Features

3D Surface Profiles

The ROMDAS Laser Crack Measurement System (LCMS) uses laser line projectors, high speed cameras and advanced optics to acquire high resolution 3D profiles of the road.

The LCMS can acquire full 4 m width profiles of a highway lane at normal traffic speeds. The system uses two scanning laser profilometers that digitize transverse sections of the pavement. Custom optics and high-power pulsed laser line projectors allow the system to operate in full daylight or in night-time conditions.

Rut Depth Measurements

Using the profiles collected the system can accurately calculate the degree of pavement rutting and overcomes many of the drawbacks of other rut measurement systems that use less contact points and transverse range.

MPD Texture Data

Thanks to the exceptional speed of the scanning lasers, users of the ROMDAS LCMS are able to collect information on surface texture properties in terms of Mean Profile Depth (MPD).

Roughness (Optional Upgrade)

With roughness being one of the primary road characteristic, no system would be complete without the ability to collect roughness data. Linear profiles used to calculate road roughness/unevenness can be extracted from the LCMS data which means there is no need to acquire additional profiling equipment. LCMS users are able to define the exact position of wheel paths and in turn eliminate the influence of driver error when collecting roughness data.



The ROMDAS LCMS Features...

- ◆ Real-time data display. Gives operators immediate feedback on correct operation of system .
- ◆ Measures full 4 m width profiles of highway lane without protrusion of system beyond 2 m width. Much safer and more manageable than Transverse measuring systems that extend significantly beyond vehicle width.
- ◆ Operation in day or night time conditions.
- ◆ Survey speeds up to 100 km/h .



ROMDAS System with LCMS, Sub Meter GPS, High Resolution DMI, 3 Camera Video Module, Geometry Unit and 2 Laser Profilometers.



For further information on the ROMDAS road measurement system please visit www.romdas.com

Email: info@romdas.com
Phone: + 64.9.87.7703
Fax: +64.9.87.7704

ROMDAS
Manufactured by
Data Collection Ltd.
New Zealand

*providers of innovative technology for
measuring and managing roads*

© 2011 Data Collection Ltd.



ROMDAS-LCMS Laser Crack Measurement System

Operation

Real-time outputs of LCMS are displayed during the survey and raw data is automatically saved by the ROMDAS system allowing for further analysis and calculations based on raw data.

The ROMDAS software does not require any operator interaction during LCMS data collection.

Components

The ROMDAS LCMS is comprised of the following components:

- ⇒ 2 x Laser Profilers
- ⇒ Rack Mount LCMS Controller
- ⇒ All necessary cabling
- ⇒ Laser mounting frame



Technical Specifications

Outputs	<ul style="list-style-type: none">◆ Automated Surface Defect Detection & Analysis (Including: Cracks, Potholes, Ravelling)◆ Rut Depth, Width & Cross-Sectional Area For Each Wheelpath,◆ Macro-Texture (MPD) In 5 Longitudinal Bands,◆ Lane Markings.◆ Roughness (IRI) in 2 wheel paths (optional)
Vehicle Survey Speed	0-100 Km/h
Sampling Rate	5600 Hz (profiles per second) Data compressed in real-time. Storage < 1Gb per km
Depth Accuracy	± 0.5 mm
Transverse Range	4 m nominal (4160 Points/Profile)
Output File Format	Microsoft Access Files, JPEG Image files with Defect Overlay.
Environmental Protection	IP-65 (NEMA 4)
Power Consumption	150 Watts (240 VAC)