



Driving innovation for an ever changing world

TM2 – Texture Meter



The viable alternative to the traditional sand patch method

Calculates and displays SMTD and MPD

Pavement texture is an extremely important road surface property, influencing skid resistance, rolling resistance and noise from vehicle tires.

The TM2 surface texture meter is the result of an extensive in-house research and development program by W.D.M. Limited to provide all the functionality of a routine texture measurement instrument, coupled with extensive analysis tools.

When validating vehicular texture, the TM2 delivers the definitive reference measurement.

It measures the road profile transversely over a width of 100mm to build a detailed record of the surface, with its average texture depth, giving repeatable and reproducible results.

The TM2 is powered by a rechargeable lithium battery and projects a very thin continuous laser line onto the road surface, transversely to the direction of travel.

This procedure creates a broad swath of road profile measurement, which is repeated every 1 - 5mm producing a 3D representation

of the surface. Any changes in walking speed do not impair the accuracy of the measurement.

The width of 100mm has been chosen to provide the MPD statistical length (as determined in ISO 13473) and to maintain the low profile of the device.

The device is easy to operate and delivers repeatable and reproducible results. The TM2 has been further updated to introduce GPS tracking technology, for greater survey detail and accurate mapping.

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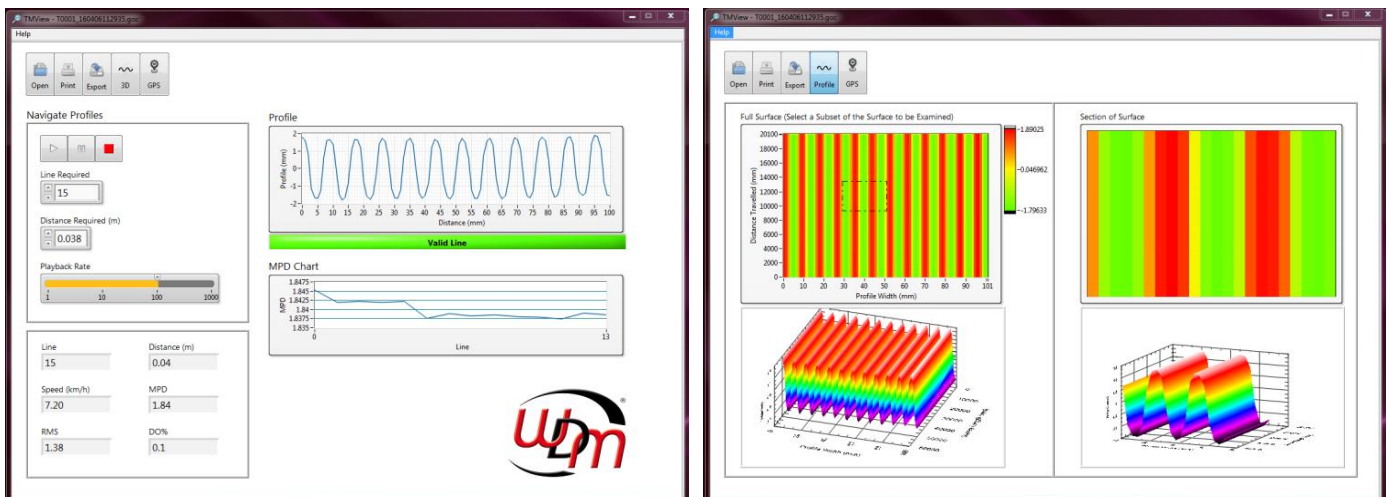
Data Storage

Survey data is stored internally, on the tablet PC, and on to external USB pen drives. 0.5 miles of standard texture and GPS data, providing 35 and 160 feet results, will require only 65kb of data storage. If 'raw' data is selected, 0.5 miles of test data will require up to 400Mb of data storage.

Survey Detail

The operator can optionally choose to store standard texture data files or all the raw data, which can then be analyzed by using the standalone TM View software, an optional post-processing software-set, that allows users to review and analyze surveys, line-by-line. It also includes a GPS feature for mapping the route taken on the survey.

Thanks to distance triggered surveying, the TMView program can also be used to provide a 3D representation of the surveyed area:



Computer

The TM2 utilizes a 7" fanless, daylight viewable widescreen XGA Touch Panel PC. The system runs the familiar Windows operating system, and has a resistive touch screen, which may be operated by either finger or stylus. The tablet includes a generous 32GB hard-drive. The panel PC itself is attached by a one-click operation and is fully manoeuvrable. Data can be transferred from the TM2 to a removable USB pen drive with ease.



TM2 Specifications

Laser line sampling frequency	User Selectable (1mm-5mm regularity)
Laser line sampling length	100mm
Profile depth measurement range	50mm
Profile depth measurement resolution	<0.05mm
Walking speed range	Up to 10Kph
Survey distance with external USB flash disk	>10km
Batteries – lithium ion rechargeable	36v
Battery operating time (Battery replaceable with simple docking system)	Up to 10 hours
ISO Compatibility	ISO 13473 in three parts
Weight	22 kg

● **Product patent nos.: Australia – 2009202347 / UK – GB2460892, / USA – 8,159,679 / Hong Kong – 1139200.**

● **Austrroads has validated TM2 as a calibrated reference device for measuring pavement surface texture (AG:AM/T014 – Reference Device Method)**