



Driving innovation for an ever changing world

## TM2 – Surface Texture Meter



**The viable  
alternative  
to the  
traditional  
sand patch  
method**

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**Calculates  
and  
displays  
SMTD and  
MPD**

It is widely recognised that pavement texture is an extremely important factor in the control of surface friction and subsequent road safety. It is also an important parameter for the determination of factors such as noise emission from vehicle tyres.

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

The TM2 delivers the definitive

pavement surface texture measurement standard. 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 consistent results.

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

This procedure creates a broad swathe of road profile measurement across the road surface over a width of

100mm, which is repeated every 2mm to 5mm at an average walking speed of 3.5kph. 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 consistent results. Dropout levels, often a major problem on new asphalt, are generally low, typically around 5%. The TM2 has been further updated to introduce GPS tracking technology, for greater survey detail.

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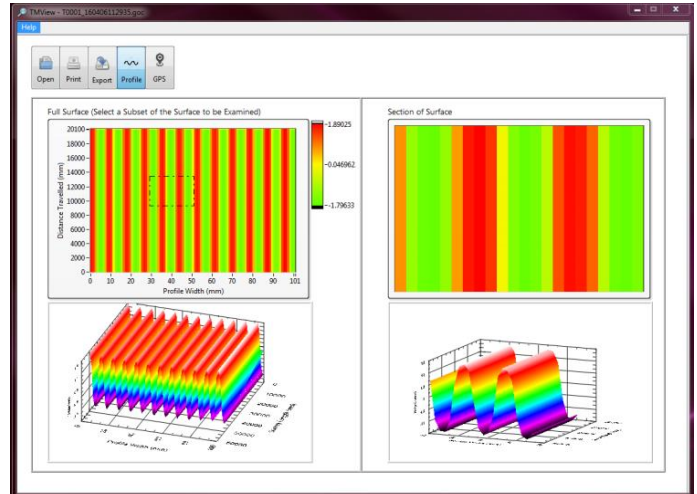
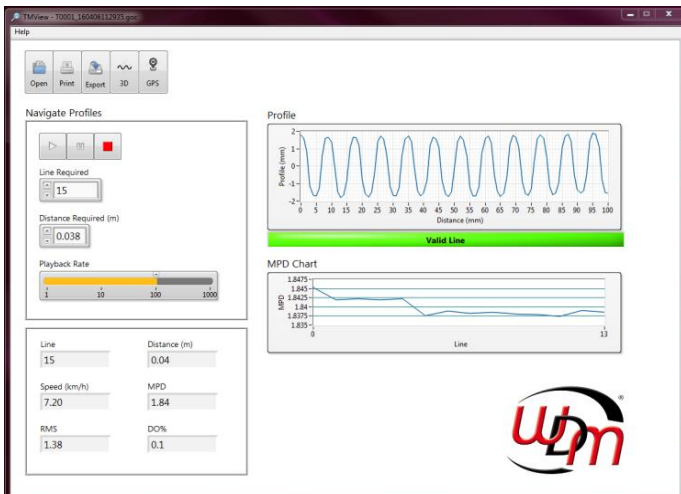
## Data Storage

Survey data is stored internally, on the tablet PC, and on to external USB pen drives. 1km of standard texture and GPS data, providing 10 and 50m results will require only 65kb of data storage. If 'raw' data is selected, 1km of test data will require up to 400Mb of data storage, depending on the regularity of measurements.

## Survey Detail

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

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



## Computer

The TM2 utilises a 7" fanless, widescreen XGA Touch Panel PC, incorporating an Intel ATOM N2600 1.66GHz Processor. The system runs the familiar Windows operating system, and has a 5-wire 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

Laser line sampling length

Profile depth measurement range

Profile depth measurement resolution

Walking speed range

Survey distance with external USB flash disk

Batteries – lithium ion rechargeable

Battery operating time

(Battery also replaceable with simple docking system)

CE approval

ISO Compatibility

Weight

User Selectable  
(2mm – 5mm regularity)

100mm

50mm

<0.05mm

3-5kph

>10km

36v

Up to 10 hours

YES

ISO 13473 in three parts

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)**