



# PaveScan® RDM 2.0

The PaveScan® RDM 2.0 is our second-generation asphalt density assessment tool, that provides accurate real-time measurements to ensure pavement life and quality. This system is ideal for uncovering inconsistencies that occur during the paving process, including poor uniformity and significant variations in density. By detecting these problems, PaveScan helps avoid such premature failures as road raveling, cracking, and deterioration along joints.

PaveScan automatically measures the dielectric value to identify anomalies in real-time. In addition, the dielectric values can be used as a means to correlate percent voids and density in new pavement. The innovative technology enables users to obtain critical density data for QA/QC of new pavements.

|   |  |
|---|--|
| <p><b>MAX DEPTH</b><br/>Surface Only</p>  | <p><b>SENSOR FREQUENCY</b><br/>2 GHz</p>   |
| <p><b>WEIGHT</b><br/>36.9-42.9 kg<br/>(81.4-94.6 lbs)</p>   | <p><b>STORAGE CAPACITY</b><br/>256 GB</p>  |
| <p><b>DATA DISPLAY MODES</b><br/>Line Graph,<br/>Data Contour Map or<br/>Histogram Distribution</p> | <p><b>ACCESSORIES</b><br/>Upgrade Kit from<br/>1 to 3 Sensors,<br/>Geode GPS</p> |

## The PaveScan Solution

SHRP 2 R06 states “In-place density is a critical factor in determining pavement durability in hot-mix asphalt (HMA). Localized non-uniform zones of mix, termed segregation, often become low-density areas in the mat. Segregation continues to be a major construction-related problem with a significant adverse impact on pavement service life.” As such, GSSI created the PaveScan in 2016 as a non-nuclear solution that provides full coverage data in real time. Learning from additional research and field studies, PaveScan 2.0 incorporates a new sensor design, mounting configuration, and software updates that enhances data accuracy.

PaveScan is a groundbreaking new technology that identifies areas of non-uniformity in new pavement.



See our website for more information and detailed specifications: [www.geophysical.com](http://www.geophysical.com)

# REVOLUTIONIZING ASPHALT COMPACTION EVALUATION

## Innovative Technology

PaveScan offers an easy and affordable assessment tool to non-destructively determine asphalt dielectric during application. This system is ideal for uncovering inconsistencies that occur during the paving process, including poor uniformity and significant variations in density.

## Groundbreaking Solutions

PaveScan is a dielectric profiling system (DPS) and the premier asphalt test method to identify areas of non-conformity in new pavement. It can be deployed with two different survey methods; utilizing the dielectric values or percent voids. There are no site hazards or need to close off work areas as is the case with nuclear gauges/radioactive alternatives.

As of April 2019, this pavement density measurement technology is an accepted American Association of State and Highway Transportation Officials (AASHTO) specification, PP 98-19.



## PAVSCAN FEATURES

### Rugged Deployment Cart

- Modular assembly for easy deployment and transport
- Foldable deployment arms with high-visibility for work site safety
- Foot-activated brake on rear wheel

### Integrated Concentrator Box

- Accommodates up to 3 sensors
- Housing for cable management
- Hot-swappable, dual batteries

### New Sensor Design

- Built specifically for the extremes of the asphalt paving environment
- Green laser to aid location accuracy

### Additional Features

- Warm-up time under 1 minute (with ambient temperature over 70° F)
- Simple User Interface on Panasonic G1 tablet with minimal on site configuration
- GPS connectivity via Bluetooth and built-in GPS pole adapter



# DATA VISUALIZATION

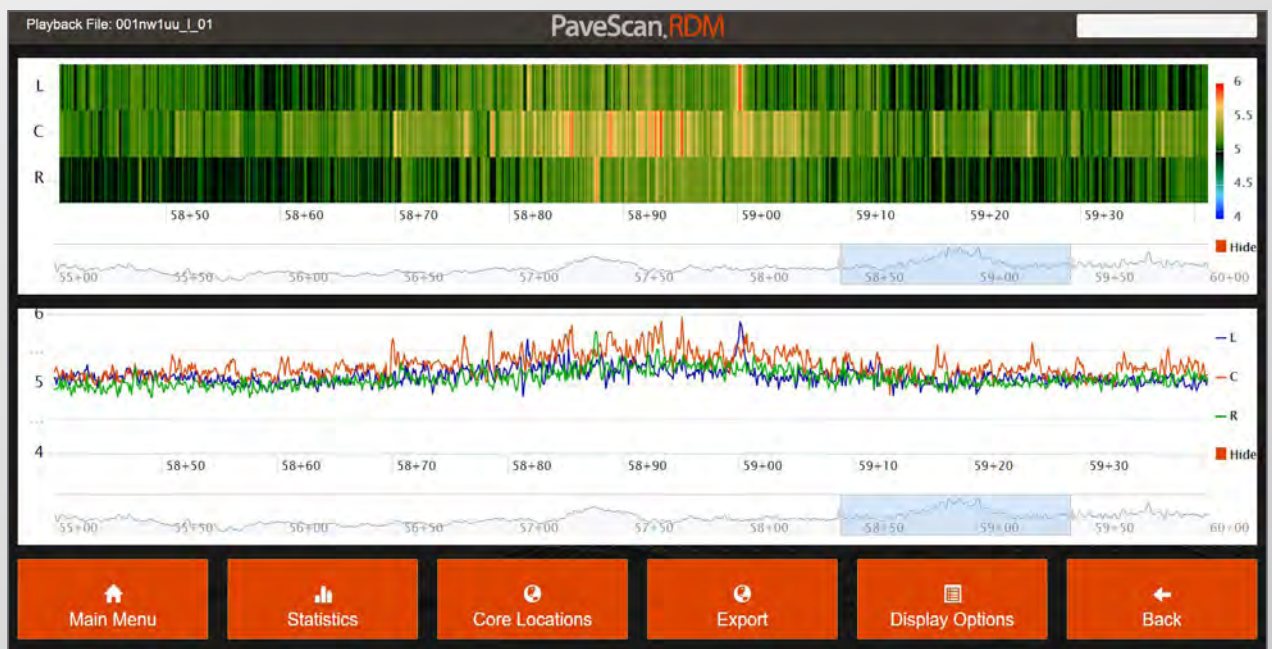
From technician to engineer, PaveScan is easy to operate. With seamless GPS integration, real-time onscreen data output, and export options, this system is ideal for government transportation agencies and paving contractors alike.

## Real-time Survey: Dielectric Display

PaveScan automatically calculates the dielectric measurement of new pavement. The variation in dielectric values of an asphalt mix are correlated with variation in asphalt void content. Consequently, PaveScan identifies the outliers and anomalies in compaction, allowing the users to determine the conformity of new pavements and appropriate areas to cores.

## Gathered Results: Percent Void Display

PaveScan provides users a full coverage survey method to determine asphalt integrity by correlating percent voids with density. To map the percent void content, users first determine areas to core using the dielectric measurements. After the cores are evaluated, the percent void content can be back-calculated for the survey area and displayed on the PaveScan system, or output via a .csv or KML file.



Data represents the visual output of PaveScan data. The color map indicates anomalies in the dielectric measurement. The line graph denotes the dielectric output of each sensor.



# SPECIFICATIONS

## Tablet

|                       |   |
|-----------------------|---|
| Display               | 10.1" WUXGA 1920 x 1200 with LED backlighting |
| Processor             | Intel® i5-7300U                               |
| Available Ports       | Ethernet, USB, HDMI                           |
| Battery               | Li-Ion Battery (10.8 V), 4 hours              |
| Operating Temperature | -28°C to 60°C (-18°F to 140°F)                |
| Environmental Rating  | IP65  |
| Drop Spec             | MIL-STD-810G                                  |

## Measurement

|                             |          |
|-----------------------------|----------|
| Repeatability (dielectric)  | +/- 0.12 |
| Accuracy (dielectric)       | +/- 0.12 |
| Minimum/ Maximum dielectric | 2 to 16  |

## Mechanical

|                       |   |
|-----------------------|---|
| Dimensions            | One sensor cart system - 157 x 63 x 111 cm (62 x 25 x 44 in)<br>Three sensor cart system - 157 x 185 x 111 cm (62 x 73 x 44 in) |
| Environmental Rating  | IP65  |
| Operating Temperature | -28°C to 60°C (-18°F to 140°F)  |
| Storage Temperature   | -55°C to 85°C (-67°F to 185°F)  |

# ACCESSORIES



## Upgrade Kit

The upgrade kit for the PaveScan allows single sensor users to upgrade their systems to three sensors for better pavement coverage. This accessory includes two sensors, arm extensions and two cables.



## Geode GPS and Mounting Pole

The Geode GPS and mounting pole provides high-precision location information and works seamlessly with the PaveScan interface.

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