



# PaveScan<sup>®</sup> RDM 2.0

The PaveScan<sup>®</sup> 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 users construct higher quality roads and avoid premature failures such as pavement raveling, distress 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. This innovative technology enables users to obtain critical density data for QA/QC of new pavements. The ability to collect data wherever desired on a compacted asphalt mat in real-time, allows users to be confident that their paving operations are satisfying project requirements. There is no other collection tool in the industry that can give users the knowledge and confidence in their paving operations like the PaveScan currently does.

## 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.

<p><b>MAX DEPTH</b> Surface Only</p>	<p><b>SENSOR FREQUENCY</b> 2 GHz</p>
<p><b>WEIGHT</b> 36.9-42.9 kg (81.4-94.6 lbs)</p>	<p><b>STORAGE CAPACITY</b> 512 GB</p>
<p><b>DATA DISPLAY MODES</b> Line Graph, Data Contour Map or Histogram Distribution</p>	<p><b>ACCESSORIES</b> Upgrade Kit from 1 to 3 Sensors, Multiple GPS options</p>



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 G2 tablet with minimal on site configuration
- GPS connectivity via Bluetooth and built-in GPS pole adapter



# DATA VISUALIZATION

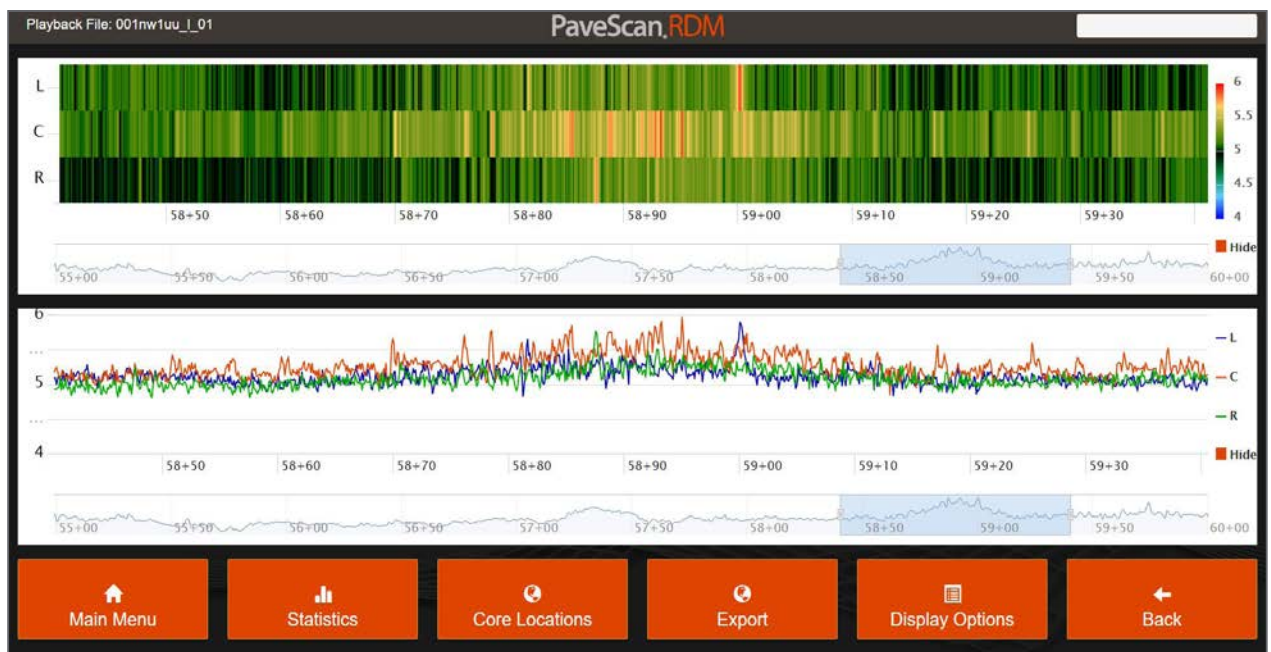
For users with ranging skill levels, PaveScan is easy to operate. With seamless GPS integration, real-time onscreen data output, and export options, this system is ideal for government transportation agencies and paving contractors alike.

## 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 users to determine the conformity of new pavements and appropriate areas to core.

## 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® Core™ i5-10310U vPro™
Available Ports	USB-A, USB-C, Ethernet
Battery	Li-Ion Battery (10.8 V), 4 hours
Operating Temperature	-28°C to 60°C (-18°F to 140°F)
Environmental Rating	IP65
Durability	MIL-STD-810H

## 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) Three sensor cart system - 157 x 185 x 111 cm (62 x 73 x 44 in)
Environmental Rating	IP65
Operating Temperature	-20°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 PavScan 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.



## GPS Options and Mounting Pole

GSSI's GPS options and mounting pole provide high precision location information and work seamlessly with the PavScan interface.

Geophysical Survey Systems, Inc.

40 Simon Street • Nashua, NH 03060-3075 USA • [www.geophysical.com](http://www.geophysical.com)

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