

## Dynamic Tire Tread Measurement System



### OVERVIEW

PPS customers recently challenged us to develop the world's first and most advanced dynamic contact pressure measurement system for tires.

To meet this challenge, PPS developed a unique 48 x 40 tactile array sensor with 4 mm resolution (interpolated to 1mm) and up to 220Hz frame rate for an equivalent sampling rate of over 420kHz.

This state-of-the-art system is currently being used by one of the world's largest tire manufacturers for product design and tire performance evaluation.

### APPLICATIONS

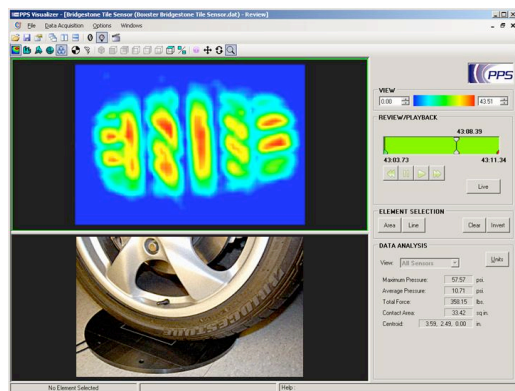
Tread Design Evaluation · Suspension Testing & Analysis · Tire Footprint Pressure Optimization · Manufacturing Quality Assurance

### KEY SYSTEM FEATURES

- 1920 sensing elements in 48 x 40 grid ( 4mm resolution interpolates to 1mm )
- Rugged mounting platform for attaching to other equipment
- USB 2.0 High Speed Interface
- Captures two external analog voltage signals ( -10V to +10V)

### KEY SOFTWARE FEATURES

- Synchronized video recording and playback
- 2D color map and 3D mesh displays
- Export data to standard, easy-to-use formats
- API available for custom software development

SPECIFICATIONS		SAMPLE DATA DISPLAY
Array Size	192 mm x 160 mm	
Element Size	4 mm x 4 mm	
Thickness	2 mm ( platform not included )	
Full Scale Range:	0.1 – 1 MPa ( 15 – 150 PSI )	
Sensitivity (1 sigma)	0.7 KPa ( 0.1 PSI )	
Scan Rate:	220Hz ( interlaced )	
Temperature Range:	0 –60°C	
Power	+5 V DC	
Interface:	USB 2.0 High Speed	