

Dynamic Tire Tread Measurement System



OVERVIEW

PPS was recently challenged by its customers to develop the world's first and most advanced dynamic contact pressure measurement system for tires. To meet this challenge, PPS has developed a unique 48x40 tactile array sensor with 4 mm resolution (interpolated to <1mm) and 200Hz frame rate for an equivalent sampling rate of over 420kHz. This state-of-the-art system is now being used by one of the world's largest tire manufacturers for the purpose of product design and performance evaluation.

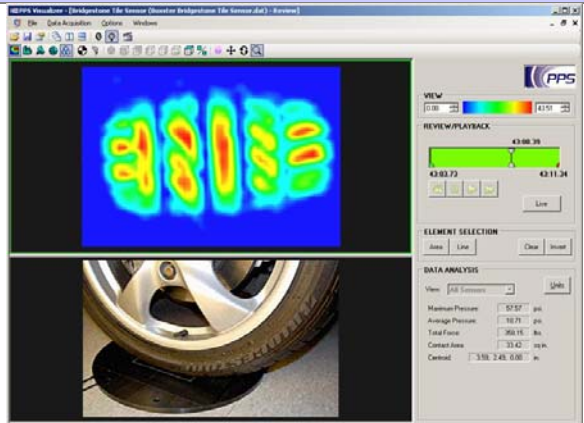
APPLICATIONS: Tread design evaluation · Suspension testing & analysis · Tire footprint pressure optimization · Manufacturing quality assurance

KEY SYSTEM FEATURES

- 1920 sensing elements in 48x40 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 (0-10VDC)

KEY SOFTWARE FEATURES

- Record and Playback capability
- Synchronized video recording
- 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	4mm x 4mm	
Thickness	2mm (platform not included)	
Full Scale Range:	0.1 – 1 MPa	
Sensitivity (1 sigma)		
Scan Rate:	200Hz (interlaced)	
Temperature Range:	0 –60 °C	
Power	+5V DC	
Interface:	USB 2.0 High Speed	