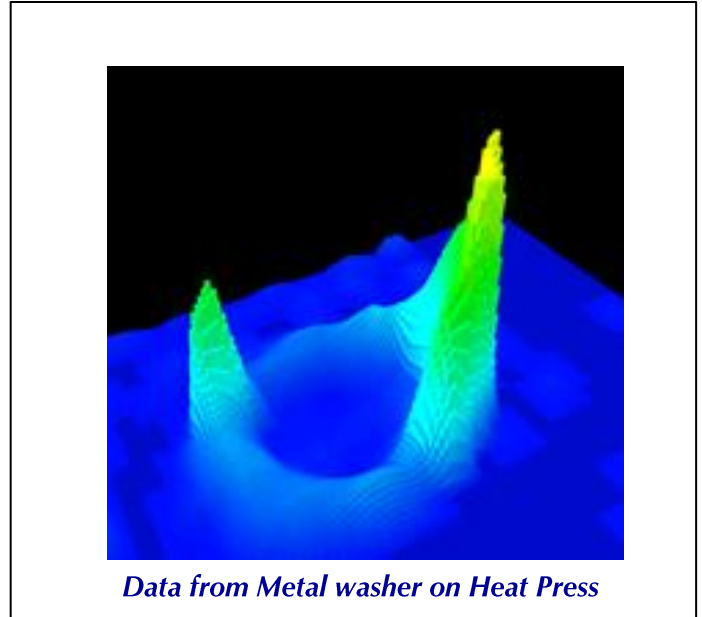




Heat Press Pressure Measurement System



Data from Metal washer on Heat Press

## PRODUCT OVERVIEW

PPS's *Heat Press Pressure Measurement System* accurately and quickly evaluates and measures the contact pressures between a heat press and mating surface during manufacturing processes where a press applies heat and pressure.

Companies that use a heat press in their manufacturing processes can use the *Heat Press Pressure Measurement System* to image and quantify the interface between the press and the product at different temperatures to ensure stability and consistency throughout the process. The system collects usable force/pressure data at actual heat press high temperatures in real time for quick analysis and performance assessment of the equipment to improve product quality and yield.

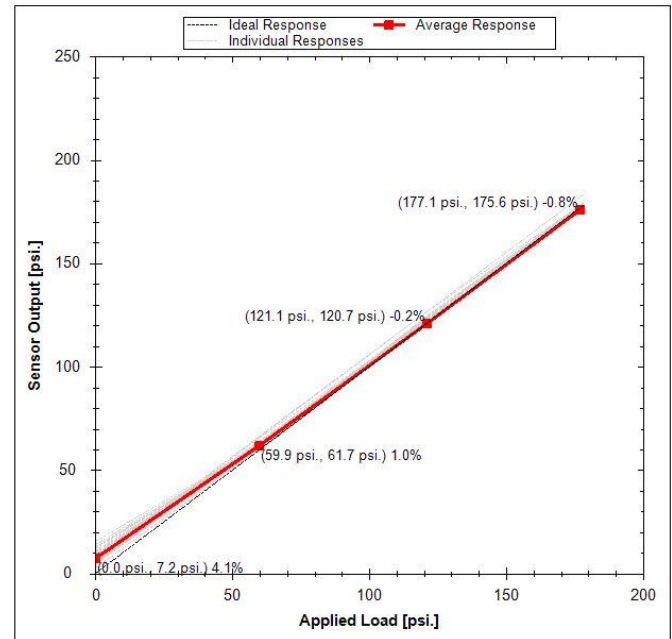
The *Heat Press Pressure Measurement System* provides the convenience and cost-efficiency of reusable system with high-quality, quantitative and repeatable alignment information.

## KEY SYSTEM FEATURES AND BENEFITS

- **Dynamic real-time visualization** provides immediate feedback and allows faster adjustments and less machine down-time.
- **Thermal compensation** allows users to collect pressure data during actual real time production process as temperature of part ramps up to process temperature.
- **Reusable system** with real-time feedback, offering dynamic real-time visualization for adjustment and alignment of heat press processes.
- **High performance capacitive sensing technology** saves time and improves results by significantly reducing recalibration and repeated tests allowing developers to resolve problems and answer questions faster.
- **Chameleon Visualization Software** provides intuitive, easy to use, high-quality visualization and easy access to data for analysis and export to other applications.

SENSOR MODELS						
Model Number	4821	4993	5188	6059	6210	6212
Total Sensor Area	82mm x 125 mm	165mm x 251 mm	496mm x 340mm	115mm x 164mm	72 mm x 172mm	120 mm x 172mm
Active Sensing Area	70mm x 70mm	200mm x 155mm	420mm x 320mm	100 mm x 150mm	45mm X 160mm	90mm X 160mm
Element Count	1024 (32x32)	256 (16x16)	256 (16x16)	960 (32X30)	960 (32X30)	960 (32X30)
Spatial Resolution	2.2mm x 2.2mm	12.5mm x 9.7mm	26.3mm x 20mm	3.3mm x 4.7mm	1.5mm x 5mm	3mm x 5mm

SENSOR CHARACTERISTICS AND PERFORMANCE <sup>1</sup>	
Pressure Range	20, 200 or 700 PSI
Pressure Sensitivity	0.2%
Signal to Noise Ratio (SNR)	667:1
Repeatability Error	0.4%
Linearity	99.8%
Accuracy Error <sup>2</sup>	<=5%
Contact Surface Material	Polyimide
Sensor Thickness	0.012 in (0.3 mm)
Cable Length	59 in (1.5m)
Operating Temperature	5°C – 200°C



ELECTRONICS SPECIFICATIONS	
Sample Rate	8-32Hz
Computer Interface	USB 2.0
ADC Resolution	12 bit
Input Voltage	5V
Input Power	2W
Enclosure Size	6.5x6.2x1 in. (16.5x15.8x2.5 cm)
Weight	1.43 lbs. (650 g)

### SYSTEM COMPONENTS

- One Heat Press Sensor of chosen design with 1.5m cable
- T4500 interface electronics with USB 2.0
- Embedded Thermocouple for managing temperature transients
- Chameleon Visualization and Data Acquisition Software
- Remote Installation and Training

<sup>1</sup> Performance numbers are for typical system response. Actual performance may vary.

<sup>2</sup> Measured using PPS standard calibration and test equipment – includes repeatability errors, noise and linearity