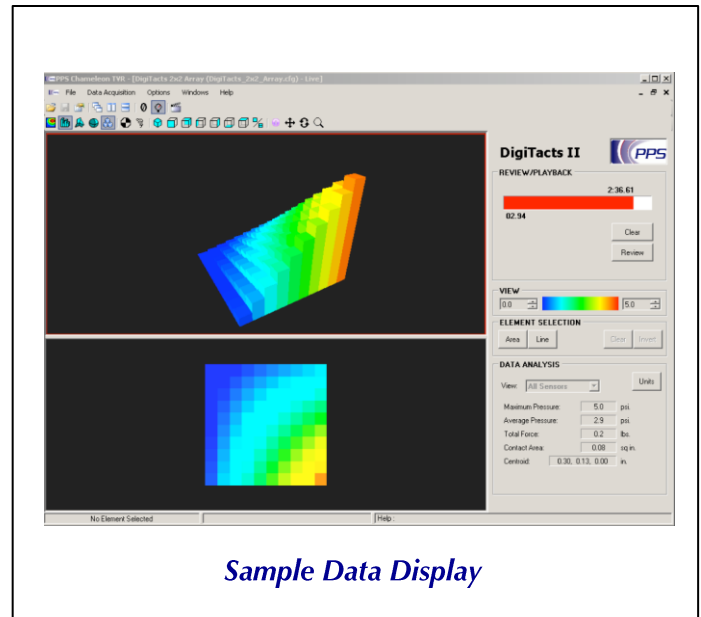




*DigiTacts System*



*Sample Data Display*

## PRODUCT OVERVIEW

The **DigiTacts System** features high performance embedded tactile sensors from PPS for giving the “sense of touch” to products in the fields of medical devices, robotics, automotive and consumer electronics.

PPS offers the **DigiTacts Systems** primarily as development kits intended for developers who wish to incorporate DigiTacts sensors into the design of their product.

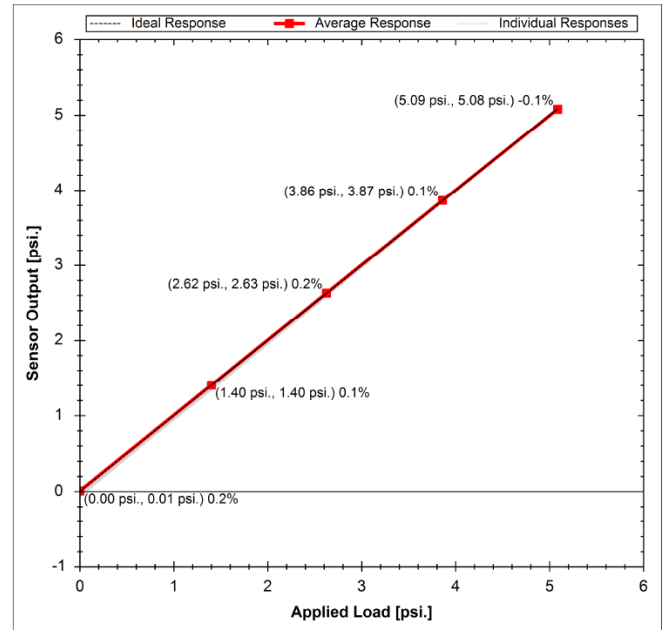
**Digitacts Systems** include Digitacts sensors that feature embedded digital output that is ideal for OEM integration. These sensors comprise of multiple sensing pads, each typically with 12-24 sensing elements, which can be placed on any location of choosing in the sensor active area.

Data from sensors is transferred via I<sup>2</sup>C or SPI digital interfaces, enabling product designers and engineers to easily integrate Digitacts sensors into their products.

## KEY SYSTEM FEATURES AND BENEFITS

- **Sensitive tactile sensors with stable and repeatable sensor output** that can be used virtually any geometry, so testing is not constrained by surface design.
- **Capable of measuring low to high pressures** to support a broad range of applications.
- **Compact wireless Bluetooth electronics** provides easy to use set up with minimal wires.
- **SPI or I<sup>2</sup>C serial digital output** ideal for OEM integration.
- **High performance capacitive sensing technology** that 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 CHARACTERISTICS AND PERFORMANCE <sup>12</sup>	
Pressure Range	5, 20 or 40
Pressure Sensitivity	0.2%
Signal to Noise Ratio (SNR)	700:1
Repeatability Error	0.5%
Linearity	99.7%
Accuracy Error <sup>3</sup>	<=2%
Contact Surface Material	Cloth & Polyimide
Sensor Thickness	0.02 in (0.5 mm)
Cable Length	59 in (1.5m)
Operating Temperature	-20°C to 100°C



ELECTRONICS SPECIFICATIONS	
Sample Rate	30-100Hz
Computer Interface	Bluetooth
ADC Resolution	16 bit
Input Voltage	5V
Input Power	2.5W
Enclosure Size	3×1.5×0.5 in. (75×40×12.8 cm)
Weight	0.12 lbs. (55 g)

## SYSTEM COMPONENTS

- DigiTacts sensor of chosen design (includes one additional spare sensor)
- Rechargeable D710 electronics interface module with Bluetooth connectivity
- Chameleon Visualization and Data Acquisition Software
- Remote Installation and Training
- Optional: PPS to provide a system that operate two sensors simultaneously with two additional spare sensors

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

<sup>2</sup> There are 13 DigiTacts sensor designs that are offered as part of PPS product catalog.

<sup>3</sup> Measured using PPS standard calibration and test equipment – includes repeatability errors, noise and linearity.