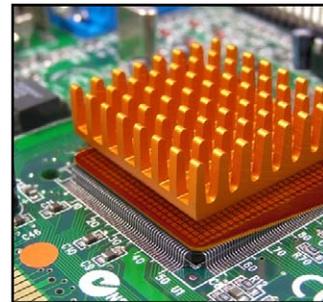


Tactilus Sensor System Ensures Optimal Heat Sink Efficiency

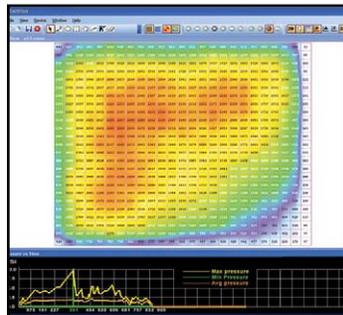
**News Release from: Sensor Products Inc
08 September 2010**

Heat sinks need to efficiently conduct heat away from the electronic components that generate this heat. The new Tactilus® heat-sink analysis system by Sensor Products Inc. enables research and design engineers to quickly and precisely test and correct the surface contact and pressure distribution between the heat sink and its source. Even a slight warping of the heat exchange structure or reduction in surface contact area can have a profound effect on cooling efficacy. If the pressure distribution is not uniform, heat conduction will be low, and the electronics may overheat.

With Tactilus®, engineers can visualize actual contact forces and pressure distribution data on the circuit board components. As the mounting screws between the CPU and the heat sink are torqued, Tactilus® maps and measures the changing pressure distribution between the mating surfaces and displays it through its software. The heat sink interface can be tested, manipulated, and repositioned in real-time, speeding the trial and error process and eliminating the need for additional assembly. Tactilus® also provides the pressure data needed for FEA simulation predictions.



Unlike conventional transducers, the Tactilus® sensor is flexible and only 0.015-in. thick (0.38 mm), allowing it to be placed between the CPU and heat sink without affecting the assembly. The sensor pad has 625 resistive sensing points



arrayed on a 25 × 25 grid. The total sensing area is 2 in. × 2 in. The scan speed is up to 1,000 Hertz, and the operating pressure range is 0 to 100 psi (0 to 7 kg/cm²).

Tactilus® collects and processes sensor data using powerful, easy-to-use, Windows®-based software that performs the following tasks:

- Creates pressure vs. time graphs and histograms;
 - Performs 2D, 3D and 360 degree image rendering and region of interest scaling;
 - Displays maximum, minimum, and average pressures and does force integrations; and
- Prepares reports through export to Excel, ASCII, or Access formats.

The Tactilus® sensor system will endure hundreds of diagnostic uses on different heat sinks with consistent repeatability. It is highly resistant to electromagnetic noise, temperature, and humidity fluctuations. Accuracy is ± 10%; repeatability is ± 2%; hysteresis is ± 5%; and non-linearity is ± 1.5%.

The Tactilus Sensor System is very versatile and can be adapted to virtually any measurement modality or application to see surface pressure distribution in real time. It is used to map and measure surface pressure distribution at the interface of tire tread footprints, door seals, heat seals, fuel cells, printed circuit boards, flat panel displays and wafer polishing, among its many uses.



Sensor Products provides off-the-shelf as well as custom design solutions for special applications. In addition, Dynamic Link Library (DLL) files and the Graphical User Interface (GUI) can be tailored to the customer's request.