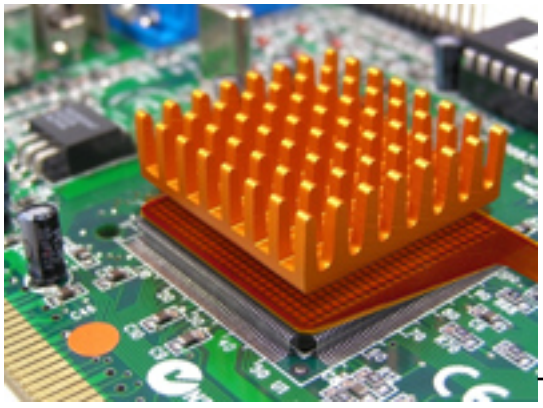
Sensor System Presents as Ensuring Optimal Heat Sink Efficiency



The Tactilus heat-sink analysis system by Sensor Products Inc. enables engineers to 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, it 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. The system also provides the pressure data needed for FEA simulation predictions. The Tactilus sensor is flexible and 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 Hz, and the operating pressure range is 0 psi to 100 psi (0 to 7 kg/cm2). Sensor data is processed using Windows®-based software that 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.

Sensor Products, Inc.
973-884-1755, www.sensorprod.com [1]

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