

## COMMON APPLICATIONS



### Packaging

nip impression, heat sealing



### Automotive

brake pad, clamping, clutch, fuel cell, gasket/bolted joint, impact study, lamination



### Electronics

heat sink, BGA, connector, lamination, LCD bonding, wafer bonding/polishing



### Aerospace

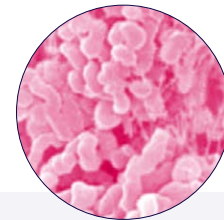
composite layup, fuel cell, lamination



### Ergonomics

biomechanics, body mapping

# TACTILE SURFACE PRESSURE ANALYSIS



Hub and sensor element

**THE INNOVATION:** The exciting advancements in Nano-materials have



allowed us to introduce the world's first nano-polymer based tactile surface sensor. With greater temperature resistance, more accuracy, less drift and better repeatability the user now can perform surface mapping analyses with greater confidence than ever before!

**WHAT IT DOES:** Tactilus<sup>®</sup> allow the user to capture and record pressure conditions occurring in between any two contacting or impacting surfaces in real time. The paper-thin Tactilus<sup>®</sup> sensor is actually placed at the contact interface where it records and assimilates both pressure distribution and pressure magnitude on your Windows<sup>®</sup> based computer.

## TACTILUS® TECHNOLOGY

Tactilus® is a matrix-based tactile surface sensor — essentially an “electronic skin” that records and interprets pressure distribution and magnitude between any two contacting or mating surfaces and assimilates the collected data into a powerful Windows® based tool kit. Each Tactilus® sensor is carefully assembled to exacting tolerances and individually calibrated and serialized.

The architectural philosophy of Tactilus® is modular, allowing for portability, easy scalability, and simultaneous data collection from up to four discrete sensor pads. Tactilus® employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques maximize the sensor’s immunity to noise, temperature and humidity.

## SPECIFICATIONS

**Active Technology**  
Nano-tubes Composite

**Surface Pressure Range**  
0 - 150 PSI (0 - 10.5 kg/cm<sup>2</sup>)

**Matrix Size**  
16 x 16 up to 32 x 32 lines

**Sensing Points**  
256 up to 1,024 total

**Total Sensing Area**  
1" x 1" up to 11" x 11"

**Scan Speed**  
Up to 200 FPS

**Temperature Capability**  
Up to 200°F (93°C)

**Spatial Resolution**  
From 0.06 in (1.6 mm)

**Thickness**  
14 mils (0.35 mm)

**Accuracy**  
± 10%

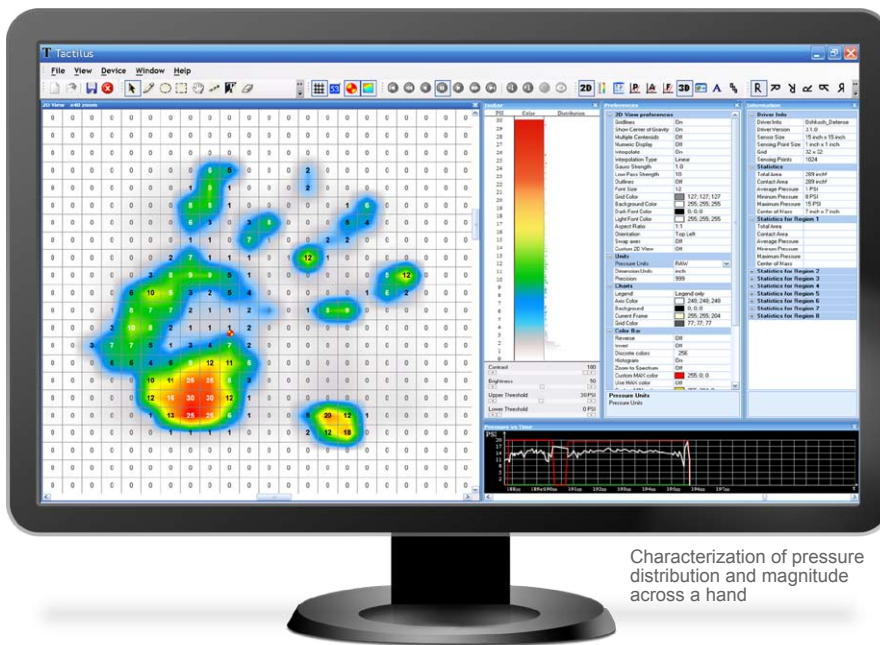
**Repeatability**  
± 2%

**Hysteresis**  
± 5%

**Non-linearity**  
± 1.5%

System includes: sensor element, signal conditioning electronics, and software.

IF YOU NEED TO  
**MEASURE CONTACT  
PRESSURE**  
BETWEEN OBJECTS  
**THIS IS**  
YOUR SOLUTION . . .



Characterization of pressure distribution and magnitude across a hand

## PRODUCT BENEFITS

- ➔ Low initial investment
- ➔ Rapid learning curve ascend (no training required)
- ➔ Reusable