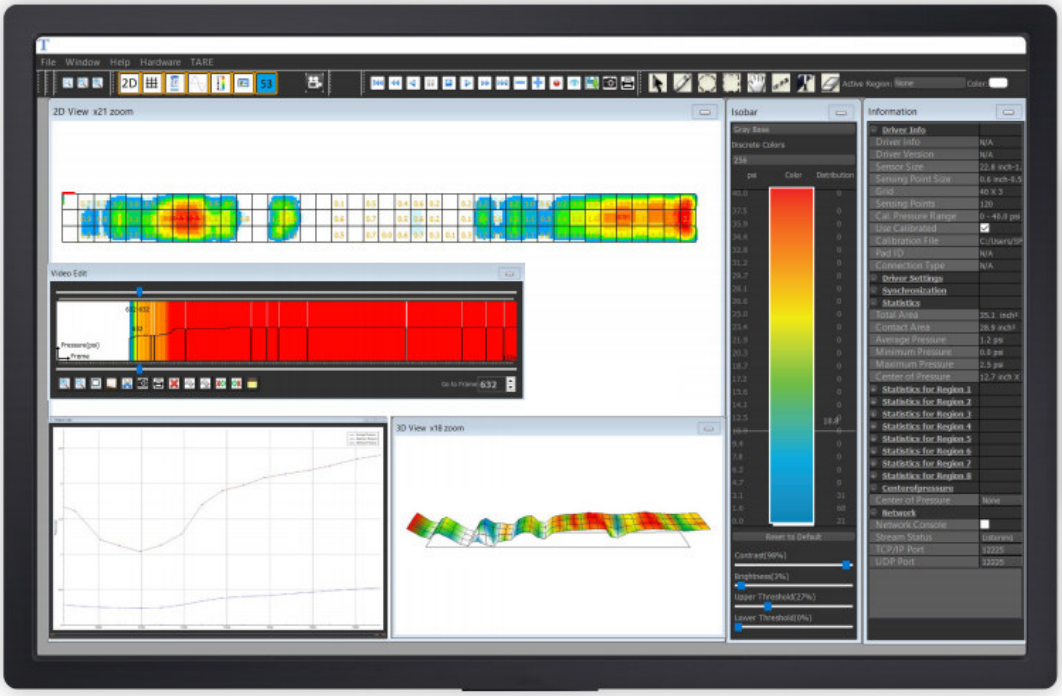
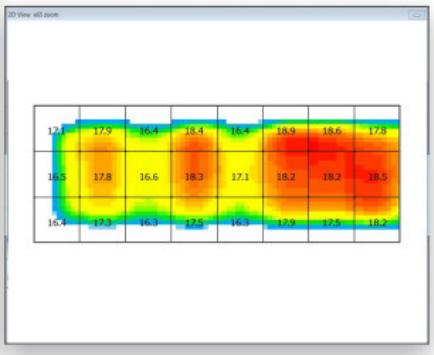
Tactile Surface Pressure Mapping in High Temperature Environments

Tactilus®
Nano-Polymer Core | S-Series

Up to 392°F (200°C)!

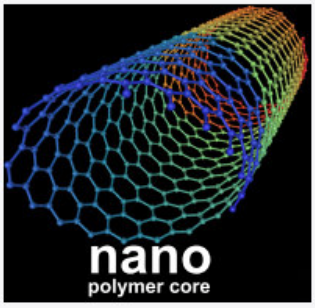




Zoomed view

Tactile Surface Pressure Analysis

THE INNOVATION: Exciting advanced in conductive ink printing have allowed us to introduce the tightest resolution available in the market. It literally provides almost the same spatial resolution of touch sensation as the human finger! State of the art stainless steel silk screens, constructed at high-tension and made in a clean room environment are the foundation for our new ultra high density sensors.



WHAT IT MEANS: Tactilus® 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® sensor is actually placed at the contact interface where it records and assimilates both pressure distribution and pressure magnitude on your Windows® based computer.

Tactile Surface Pressure Mapping in High Temperature Environments

Tactilus®
Nano-Polymer Core | S-Series

Common Applications

Single sensor point high temperature sensor

Aerospace
composite layup, fuel cell, lamination

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

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-tube composite
Surface Pressure Range	0 - 100 PSI (0 - 10.5 kg/cm²)
Matrix Size	Up to 32 x 64
Sensing Points	Up to 2,048 total
Sensing Area Size	Up to 24 in. x 120 in. (61 cm x 305 cm); customizable
Scan Speed	Up to 100 FPS
Temperature Capability	Up to 392°F (200°C)
Spatial Resolution	From 0.2 in. (25.4 mm)
Thickness	16 mils (0.4 mm)
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%

Tiedemann Instruments GmbH & Co. KG
Zur Maximilianshöhe 6
82467 Garmisch-Partenkirchen
Germany

Tel.: +49 8821 3068
E-Mail: info@Tiedemann-Instruments.de.

TIEDEMANN