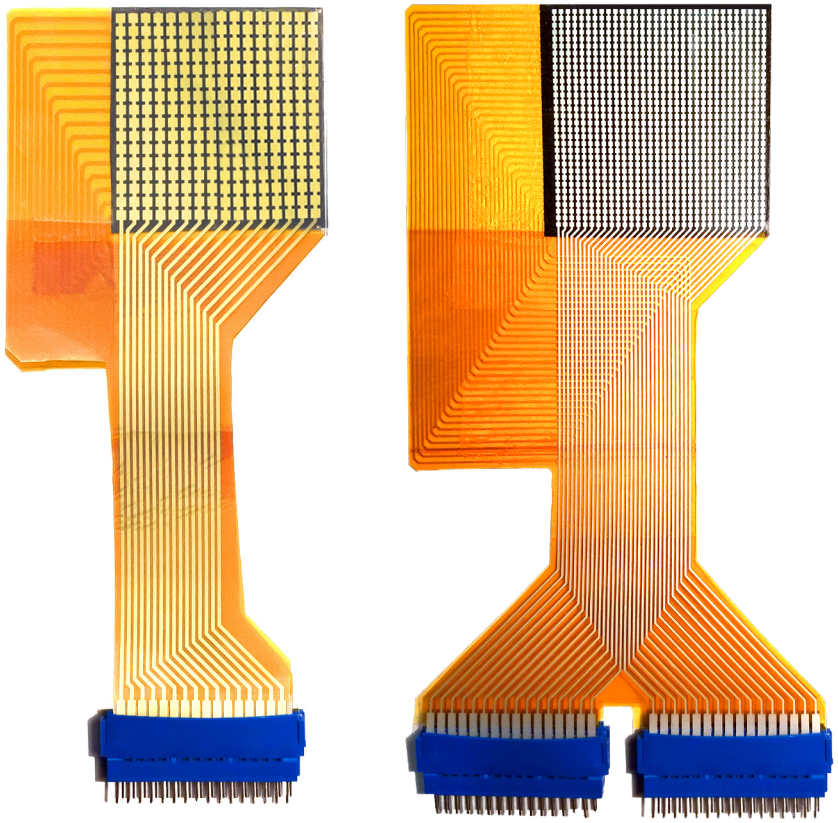
Tactilus®

Nano-Polymer Core | **C-Series**

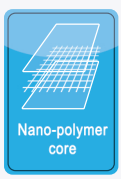
Our best solution for prototype or low volume custom applications



Tactilus C-Series Sensor Examples

Tactile Surface Pressure Analysis

THE INNOVATION: Exciting advances in conductive ink printing have enabled us to build customized sensors with extremely low startup and tooling costs and rapid turnaround in just days.



The core of the C-series sensor is formulated with the world's first Nano-polymer based tactile surface sensor.

WHAT IT DOES: 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.

COMMON APPLICATIONS

Packaging
nip impression, heat sealing

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

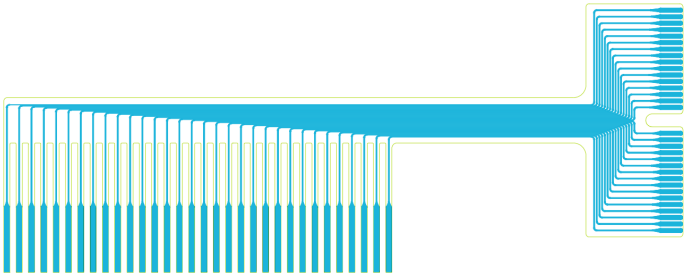
Electronics
heat sink, BGA, connector, lamination, LCD bonding, wafer bonding/polishing

Aerospace
composite layup, fuel cell, lamination

Ergonomics
biomechanics, body mapping

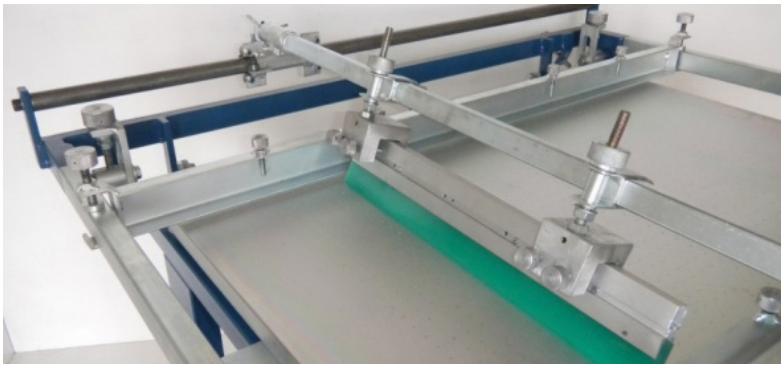
The C series represents a highly economical solution to users requiring low-volume or prototype samples.The C series is rapidly manufacted, and custom sensors could be delivered to you in days, not weeks. It's a simple 3 step process:

1 Send your CAD image to us of what you'd like the sensor to look like



2 Our engineering team modifies and formats the image into an optimal sensor design

3 We print the sensor on a custom made silk screen and squeegee setup. And quickly dispatch the sensor to you.



PRODUCT BENEFITS

- **Very low setup cost**
- **Ideal for small quantity runs**
- **Least expensive solution for custom sensors**

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^2)

Matrix Size
Up to 32 x 32 lines

Sensing Points
Up to 3,465 total

Sensing Area Size
Up to 14 x 14 in. (35.6 x 35.6 cm)

Scan Speed
Up to 800 FPS

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

Spatial Resolution
From 0.06 in. (1.6 mm)

Thickness
16 mils (0.4 mm)

Accuracy
± 10%

Repeatability
± 2%

Hysteresis
± 5%

Non-linearity
± 1.5%

*Sensors larger than 8 x 8 in. have max pressure capabilities that are lower.

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