

# Ultra Sensitive Body Mapping



**Characterization of surface pressure, magnitude and distribution data from selected locations across the human body**



**Example of Tactilus Free Form<sup>®</sup> being used for face mask sealing pressure measurement**

## Tactilus Free Form<sup>®</sup> Sensor System

The Tactilus Free Form<sup>®</sup> sensor system is designed to allow the user to collect pressure, magnitude and distribution data from selected locations across the human body. The Free Form<sup>®</sup> philosophy is to empower the user to select the precise location where they require data collection rather than the constrained "matrix" inherent in traditional fixed tactile surface sensors. The Data is then assimilated through a powerful yet userfriendly Windows<sup>®</sup> based tool kit.

### Customers Include

- Victoria's Secret<sup>®</sup>
- Under Armour<sup>®</sup>

## Human Body Interface Sensor System

Physical human interface is every bit as important as graphical computer interfaces, but the world hasn't invested in analysis and research in these areas commensurate with the opportunity at stake. Tactilus<sup>®</sup> allows the flexibility of recording human interface pressure from multiple regions simultaneously. Tactilus<sup>®</sup> Human Body Interface sensor system is the most economical, scientific and user-friendly system for surface pressure mapping available today. Bringing human factors and ergonomic engineering to a new level, Tactilus<sup>®</sup> aids the test or design engineer in optimizing the tradeoff often made between performance and comfort.



**The Tactilus Free Form<sup>®</sup> sensor system**

## Tactilus<sup>®</sup> Technology

Tactilus<sup>®</sup> 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 that data collected into a powerful, yet user-friendly, Windows<sup>®</sup> based tool kit. Each Tactilus<sup>®</sup> sensor is carefully assembled to exacting tolerances and individually calibrated and serialized. Tactilus<sup>®</sup> employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques to maximize environmental immunity to noise, temperature and humidity. Our proprietary sensor design ensures the most robust sensor in the industry - an investment that will sustain thousands of uses.

Refer to our applications menu for additional information on any of these uses of Tactilus<sup>®</sup> for surface pressure mapping.

Sensor Specifications	
Technology	Piezoresistive
Surface Pressure Range	0 - 10 PSI (0 - 0.7 kg/cm <sup>2</sup> )
Sensing Points	Up to 32 total
Total Sensing Area	0.375 in
Scan Speed	Up to 100fps
Resistance Range	0Ω to 500MΩ
Thickness	30 mils
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%
Sensitivity	1 mmHg