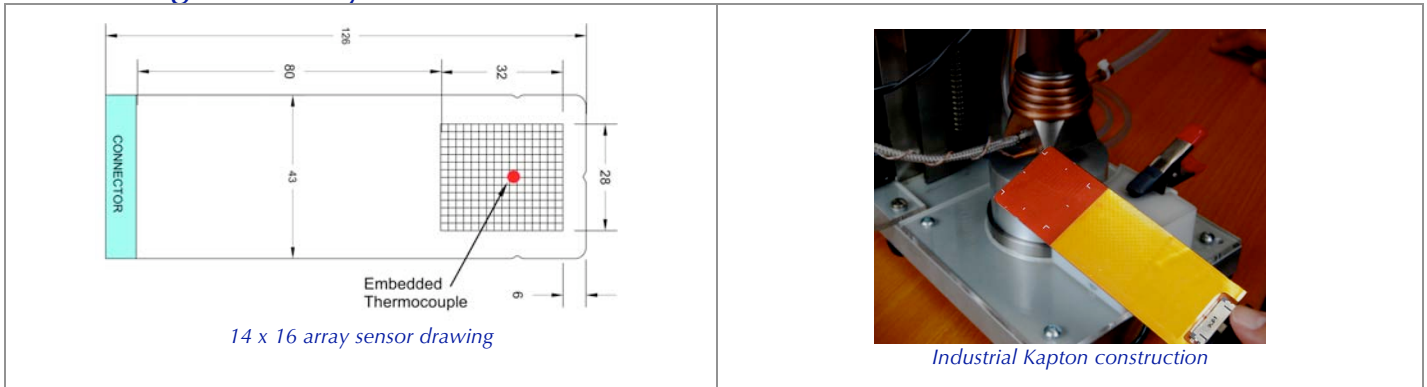


## IC Bonding Sensor System



### OVERVIEW

PPS' **IC Bonding Sensor System** is a high resolution tactile sensor that captures the dynamic force/pressure distribution over the contact surface area during bonding processes. The *IC Bonding Sensor System* operates reliably in dynamic high temperature and pressure environments. It provides quantitative and repeatable alignment information that can be integrated into bonding machinery.

### APPLICATIONS

Anisotropic Conductive Film (ACF) is used to make high density electrical connections for *IC fabrication, flat screen assembly*, or whenever a large number of *five-pitch electrical connections* must be made. During ACF bonding, there are a great deal of thermal and pressure transients when a hot blade or tool makes contact with the materials being laminated. This operating environment poses a challenge to collecting usable measurements with currently used disposable film or sensors for machine maintenance, requiring machines to be cooled before data can be collected. The *new PPS IC Bonding Sensor System* allows process operators to collect usable force/pressure data at actual bonding temperatures in real time for quick analysis and performance assessment of the equipment.

### ADVANTAGES

- *Dynamic real-time visualization* for adjustment and alignment of bonding processes
- *Thermal compensation* for accurate data collection
- *Industrial Kapton construction* for alignment measurements in use conditions involving high temperatures and high pressures
- *Industry-leading quantitative results*

### SYSTEM COMPONENTS

- One **IC Bonding Sensor** with 1.5m cable
- Embedded **Thermocouple** for managing temperature transients
- **T4000** interface electronics with USB connection to PC
- **Chameleon TVR** software for real-time visualization and data acquisition
- **API** for integrations into a Windows based machine

PPS offers custom design configurations to meet varying customer requirements. Contact us today to find out how we can help maximize the efficiency of your bonding processes. Call +310.641.8100 or [info@pressureprofile.com](mailto:info@pressureprofile.com).

SPECIFICATIONS		SAMPLE DATA DISPLAY
Array Size	14 x 16	
Element Size	2mm x 2mm	
Thickness	0.3mm	
Full Scale Range:	Up to 200psi	
SNR (1 sigma)	300:1	
Scan Rate:	22Hz	
Temperature Range:	Up to 200 °C with temperature transients	
Power	USB powered (5V, 500uA)	<p><i>Metal washer on IC Bonding sensor data</i></p>