

The quality of a surface mount assembly process is heavily dependant upon the condition of the solder paste.

New International standards have been introduced to measure certain essential solder paste conditions that, properly measured, will:

- Improve quality
- Increase process yield and
- Significantly reduce inspection and rework

All of these tests can now be carried out with only one, multi-purpose test system:

Solder Paste Analyser, SPA 1000

General Description

The SPA 1000 provides fast and accurate testing to help control and manage solder paste in the production process. It helps reduce defects such as: missing components, tombstoning, component misalignment, non-wetting etc., thus greatly reducing inspection and rework time and cost - and increasing profit.

These issues have become even more relevant since the introduction of lead-free processes and the introduction of ever smaller components.

The SPA 1000 Solder Paste Analyser represents a unique "All-in-One" test system able to conduct tests according to both IEC and IPC International Standards:

| IEC 61189-5 | IPC-TM-650 |
|-----------------------|----------------------|
| Test 5X08 - Slump | 2.4.35 - Slump |
| Test 5X09 Solder Ball | 2.4.43 - Solder Ball |
| Test 5X10 Tack | 2.4.44 - Tack |
| Test 5X11 Wetting | 2.4.45 - Wetting |
| | 2.4.46 - Spread |

G3 SPA 1000: All 6 tests in one integrated system



"Open Time" Testing

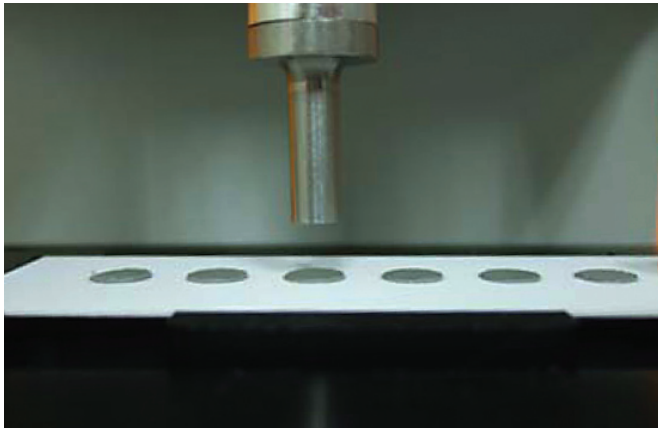
The system can not only perform all of the above established tests, it can also be used to conduct solder paste "Open Time" testing.

Open Time may be defined as the time that a solder paste may be permitted to remain "in-use" without affecting the soldering process.

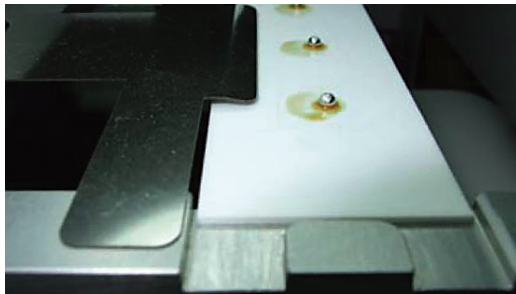
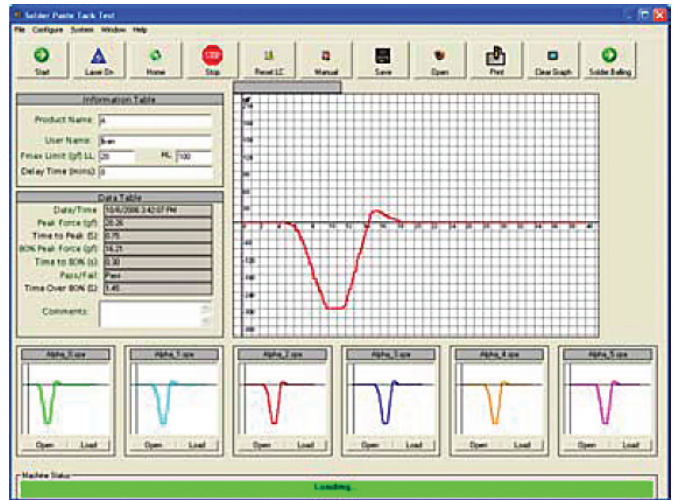
Solder Paste "Open Time" is a problem for assemblers because individual process conditions vary from site to site and, sometimes, from line to line.

- **Improves Quality**
- **Reduces Costs**
- **Increases Profit**

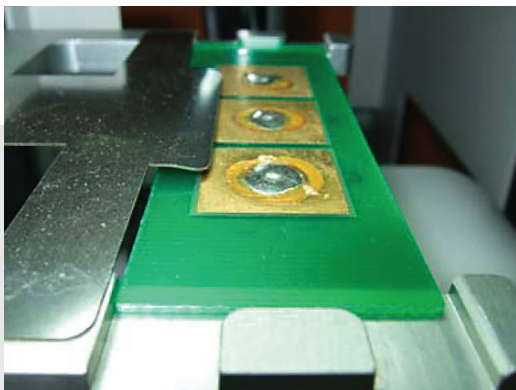




SolderTack Test and SPA 1000 test results shown opposite:
NB: The 6 results can also be shown in overlay format.



Solder Ball Test and SPA 1000 test results shown opposite:



Spread Test

Recommended System Requirements:

- Windows based PC with XP or Vista
- 2 USB 2.0 Ports
- 1 RS232 Port
- Power Supply 240V, 50 Hz

G3 SPA 1000 - Solder Paste Analyzer

System Highlights:

| | |
|--------------------------|-------------|
| Force Measurement System | Force Gauge |
| Accuracy | ±0.15% FSD |
| Maximum Force Capability | 1000g |
| Resolution | 0.1g |
| Z Axis motor | Stepper |
| Heating Elements | Heater Rods |
| Camera Magnification | 10x and 30x |
| Image Capture | Yes |

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A SHARE-GEN SYSTEM