

SMT Process Support Capabilities

Functional

- ❖ Printability **Solder paste and adhesive printability**
- ❖ Tackiness **Solder paste tackiness and tack life per IPC**
- ❖ Slump **Room temperature and hot slump per IPC**
- ❖ Component Solderability **Solderability testing using MUST II (solder globule)**
- ❖ Relative Flux activity **PCB and component benchmark testing of fluxes**
- ❖ Ionic testing **500M SMD II Ionograph**
- ❖ Shear testing **Adhesion testing of PDXXX adhesives**
- ❖ Profile testing **Convection oven with air or nitrogen environments**
- ❖ Wave Solder **Wave solder process with either foam or spray flux**
- ❖ *Solder Beading* *Pick and Place with custom test board*
- ❖ *Dispensability* *Automatic dispenser with 3 different type of pumps*

Analytical

- ❖ SEM **Surface microstructures**
- ❖ EDX **Surface elemental analysis (inorganic)**
- ❖ FTIR **Qualitative analysis of organic compounds**
- ❖ TGA **Weight loss profile, residue level**
- ❖ DSC **Determination of melt and cure points**

- ❖ Laser Triangulation **Surface topology mapping of PCB & stencil**
- ❖ Electromigration **IPC biased/humidity automatic SIR testing**
- ❖ Viscosity testing **Brookfield, Haake and Malcom equipment**
- ❖ Cross Section **Solder joint cross sectional metallurgical analysis**

*Additional Bellcore, IPC and ASTM testing of SMT materials accomplished at Trace Labs
1/20/97*

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