



High Density Electronic Interconnect Testing Services

High Density Electronic Interconnect Testing

In today's world, High Density Interconnect (HDI) device packaging is becoming more popular and more complex. Current applications include surface mount BGA (Ball Grid Array), SOP (Small Outline Package), CSP (Chip Scale Package), and FCLGA (Flip Chip Land Grid Array). Most of these applications continue to shrink in size while they grow in I/O count, creating reliability issues. Trace Laboratories - Central can conduct reliability testing on your electronic packages by utilizing state-of-the-art high-speed data acquisition systems.



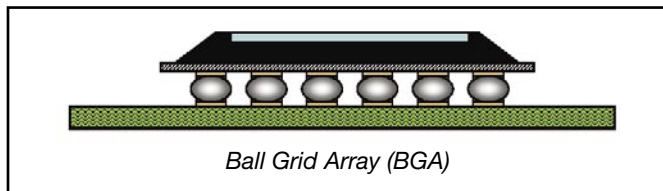
Product Reliability Testing

- Thermal Cycling
- Vibration
- Mechanical Shock
- Thermal Shock
- Accelerated Life Test
- Statistical Analysis (Such as the Engelmaier-Wild Model of the Weibull Distribution)
- Custom Cycling Chambers
- Event Detection Monitors
- Resistance Data Logging Monitors

Trace Laboratories is internationally recognized and accredited for its capabilities with regard to the testing and monitoring of high density electronic interconnects, i.e. BGA's, CSP's, flip chip, and next generation electronic packages and assemblies. We can provide testing to IPC-9701, EIA, or internal company specifications.

Temperature Cycling Test Capabilities

- Rapid Thermal Excursion
- Long-term Cycling Projects
- Capacity for Large-scale Projects
- Air-to-air
- Liquid-to-Liquid
- Harnessing
- Thermal Mapping of Product Response
- Test Vehicle Design
- Data Reduction
- Temperature Cycling
- Temperature Shock
- Data Monitoring/Recording
- Real Time Access to Data Via FTP Site
- Durability Cycling
- Test Development Assistance
- Failure Analysis
- Microsectioning
- Dye and Pry
- Package Pull (Tensile) and Shear
- Lead Pull



Internationally Accredited Independent Testing Services

www.tracelabs.com



High Density Electronic Interconnect Testing Services

Services

- Board Level Reliability
- Three Point Bend Testing
- Mechanical/Cyclic Fatigue
- Vibration/Shock/Drop
- Event Detection Monitoring
- Resistance Monitoring
- SEM/EDS
- Microsection
- Dye and Pry
- HALT
- HAST/Pressure Testing
- Electrical/EMC
- ESS and Others
- Explosion Proofing
- Acceleration
- DSCC, DGSC, and DISC
- Failure Analysis
- Solder Joint Reliability



Testing is performed in strict accordance with the standards and customer-specific requests. The lab is also available on a per-day basis for preliminary testing and troubleshooting.

Trace is an A2LA Accredited Laboratory.

Independent, Internationally Accredited Testing Services

- ✓ Chemical Testing
- ✓ Electrical Testing
- ✓ EMC (Electromagnetic Compatibility)
- ✓ Environmental Testing
- ✓ Failure Analysis/Contamination
- ✓ HALT (Highly Accelerated Life Test)
- ✓ Material Properties
- ✓ Mechanical Testing
- ✓ Printed Circuit Board Testing
- ✓ Reliability/Durability/Qualification
- ✓ Thermal Analysis
- ✓ UL Testing
- ✓ Vibration Testing
- ✓ Water Testing

Industry Specifications

Trace Laboratories conducts testing on high density electronic interconnect assemblies in accordance with numerous industry and original equipment manufacturer specifications, including IPC, Military, EIA, IEC, JEDEC, ASTM, UL, Telcordia, and numerous OEM specifications.

For more information, or for a quote on specific test requirements, contact:

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