COMPANY INFORMATION

EPSI Incorporated (founded in 1995) is an engineering consulting firm serving the electronics industry world-wide. Board assembly, SMT / BGA / Flip-Chip / CSP solder joint reliability is our specialty and we are recognized as a leading edge company in the area of assembly reliability. Our mission is to provide our customers with cost effective solutions to build-in the reliability of electronic packages and circuit board assemblies.

REFERENCES

Beneficiaries of our products and services include small to large companies and institutions in Asia, Europe and North America, e.g. Amkor, ASME, Bell Laboratories, Baker Hughes Inteq GmBH, Boeing, Celestica, Ericsson, Ford, France Telecom, Fujitsu, General Electric, Hewlett-Packard, Honeywell, Industrial Technology Research Institute (ITRI/Taiwan), Intel, IPC, Johns Hopkins University, LG Semicon, Lockheed-Martin, Lucent Technologies, Motorola, Nippon Steel, NIST, Nokia, Nortel, NPL, Raytheon, Sandia National Labs, Semyzen (Singapore), SMTA, Sun Microsystems, Texas Instruments to name but a few.

PRODUCTS AND SERVICES

SOLDER RELIABILITY SOLUTIONS (SRS) SOFTWARE

SRS is a PC-based application that enables rapid analysis of the effects of board, component and thermal load parameters on the attachment reliability of near-eutectic tin-lead assemblies. SRS implements state-of-the-art thermal stress and life prediction methodologies that capture years of thermal cycling and model development across the electronics industry. SRS has been used since 1996 by design and manufacturing engineers in all segments of the electronics industry. Customers include major electronic packaging companies, assemblers and suppliers of aerospace, avionics, automotive, computer, controls, medical, semi-conductor, storage and telecommunication equipment.

CONSULTING SERVICES

We help clients in:

- Establishing internal reliability programs: testing strategies, accelerated test plans, design-of-experiment, test vehicles, design-for-reliability, life prediction techniques.
- Assessing the reliability of existing or new technologies: BGAs, Flip-Chip, Chip-Scale Packages.
- Design reviews and problem-solving: "fire-fighting", failure analysis, independent audits.

We also offer:

- Modeling services: package and board thermal / mechanical stress analysis (incl. FEA), statistical analysis, solder joint fatigue and reliability predictions, bump height predictions, model development.
- Software development: custom programs, spreadsheets, Windows applications.
- Measurements: high-sensitivity moiré, in-situ stress/strain measurements, Coefficients of Thermal Expansion (CTE) of packages, substrates, circuit boards, thin films.
- Expert-witness services related to electronic packages, SMT, circuit boards and solder joint failures.
- Representation at technical events: conferences, standards, committee meetings.
- Research and literature surveys.
- Retainer services: draw on our engineering resources and areas of expertise when problems occur.

TRAINING SEMINARS

- " SOLDER JOINT RELIABILITY OF SMT, BGA, FLIP-CHIP AND CSP ASSEMBLIES"

A comprehensive in-house two-day program that provides a fundamental understanding of solder joint fatigue, practical guidelines to assess and build-in attachment reliability, and the latest information on the reliability of fine-pitch, area-array and chip-scale-package assemblies. Includes possible hands-on use of the SRS software. Customized versions of this seminar are available to better meet your organization's needs.

- **NEW:** "SOLDER JOINT RELIABILITY OF LEAD-FREE ASSEMBLIES" (starting Fall 2002).

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