



SMTA
Surface Mount Technology Association



Portland Oregon Chapter

Q1 2012 Newsletter

SMTA MISSION

25 Years Developing Solutions In Electronics Assembly

The SMTA membership is an international network of professionals who build skills, share practical experience and develop solutions in electronic assembly technologies, including microsystems, emerging technologies, and related business operations.

Visit the SMTA website at www.smta.org

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http://www.smta.org/chapters/chapters_detail.cfm?chapter_id=3

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March Meetings

There are two meetings scheduled for the month of March; one in the Portland, OR area and another in the Seattle, WA area. We hope to see you for one or the other; or better yet, come to both!

Portland, OR Area Meeting

Date: Wednesday March, 14th 2012
Place: BiAmp, Inc.
9300 SW Gemini Dr. Beaverton, OR 97008
Time: 4:30 PM - Check-in & Networking
5:00 PM - Presentation
Speaker: Rob Rowland – Radisys Corp.
Topic: RoHS Recast

Abstract:

It seems like only yesterday that we were struggling to meet the July 1st, 2006 deadline for EU RoHS (Restrictions on Hazardous Substances). In December 2008 the EU Commission revealed plans to recast the existing RoHS Directive. RoHS Recast was adopted and published in June of 2011. It repeals the original RoHS Directive which has regulated hazardous substances in electrical and electronic equipment (EEE) since June 2006. RoHS Recast goes into effect on January 3rd, 2013. We are officially in the transition period. EU Member States must publish, by January 2nd, 2013, the laws, regulations and administrative provisions necessary to comply with the new Directive. If you ship product to Europe now is the time to start developing and implementing a strategy to comply with RoHS Recast.

RoHS Recast is a single all-inclusive document that replaces the original Directive and subsequent amendments to the Directive. The objective was to develop a regulatory process that is simple, understandable and enforceable. However, the resulting document is wordy and complex so it may not necessarily be easier to understand and comply with.

Exemptions were a key part of the original RoHS Directive and they are a key part of RoHS Recast. Certain materials are exempt if no suitable alternative material is available for a specific application or if material availability is not sufficient to meet demand. The list of Exemptions has been modified and expanded to 39 Exemptions. And there is one major change – the new Exemption list includes expiration dates.

RoHS Recast and the expanded Exemption list is an evolutionary step in European environmental compliance. This presentation will explain what changed, what did not change and what you need to do to comply with RoHS Recast before the end of this year. It will also include a detailed review and explanation of the expanded Exemption list.

Rob's Bio:

Rob is currently a Staff Supplier Engineer at RadiSys Corporation. He has more than 25 years of experience with surface mount manufacturing technology and more than 5 years of experience with environmental compliance (RoHS, REACH, etc.). Rob is an active member of the Surface Mount Technology Association (SMTA). He has been the Conference Director of SMTA International for the past 12 years. Rob has a BS in Manufacturing Engineering from Weber State University.

Seattle, WA Area Meeting

Date: Thursday, March 15th 2012
Time: 5:00 – Check-in & Networking
5:30 – Presentation
Place: Physio Controls
11811 Willows Rd NE Redmond, WA 98052
Speaker: Chuck Bauer, PhD
Topic: The Role of Embedded Assembly Solutions for Electronic Systems

Abstract:

*Buried Parts Bring New Life to Electronics Packaging, Interconnection & Assembly;
The Role of Embedded Assembly Solutions for Electronic Systems*

SMTA Oregon Meetings are FREE! Conference Rooms are not ☹

Do you work at a company that would be interested in hosting a meeting?

SMTA Oregon is always looking for host sites and host sponsors for our local meetings. If you have a conference room that can seat between 20-30 people and can accommodate a projector or if your company would like to help sponsor a meeting then contact Ruth Conner.

Phone: 503-819-4895

Email: radservices24@aol.com

Embedded assembly of electronics traces its roots to the 1940s and 1950s with the advent of encapsulation approaches. However, until the development of organic PWBs in the 1950s the door opened on a wide range of approaches. Further expansion transpired with the proliferation of semiconductor device packaging through the 1970s. The 1980s brought substrate based packages such as BGAs and MCP/MCMs and evolved into the very advanced embedded chip build up technologies invented at GE. During the 1990s companies in Japan and Europe focused on more macro level assemblies.

Embedding active and passive components in the circuit board offers improved performance by cutting interconnect parasitics, reliability gains by eliminating wire-bonds and solder-bumps, and reduced cost and size by parts list reduction. Like every new development, these benefits come at a price: disrupted logistics, yield management concerns, and limited rework and repair options.

This presentation reviews the application and implementation of commercial and developmental technologies to embed active as well as passive components in printed circuit boards and other interconnect substrates. Topics include advanced material options, contact metallurgy and processes, embedded chip packaging, and options for embedded passives.

\$5000 Charles Hutchins Educational Grant

Are you a student or do you know one that is currently doing research in the field of SMT?

You may be eligible for a \$5,000 educational grant! Visit <http://smta.org/hutchins/hutchins.cfm> for details. Don't delay, the deadline to apply is April 16th, 2012.

Solutions include organic-based (PWB, flex, and thin film) systems and ceramic-based (thick film, LTCC, and HTCC). Examples of specific embedded component structures, including Verdant's Occam, Freescale's RCP, and Imbera's IMB technologies, demonstrate both the power and limitations of these approaches.

Further considerations for embedded components include yield management strategies, WEEE and ROHS concerns, system reliability, and supply chain restructuring. The course concludes by reviewing the drivers behind embedded active and passive components and analysis of multiple examples of today's real life embedded component applications.

Today two technical perspectives present contrasting solution alternatives for embedded assembly challenges; one comes from a PWB technology base and the other from a semiconductor packaging base. Exploring these differing approaches enlightens us on the role and future of embedded electronics assembly while we also further our understanding of the benefits and opportunities presented by this technology!!

Chuck's Bio:

Charles E. Bauer, Ph.D. serves as Senior Managing Director of TechLead Corporation, an international management and engineering consulting firm with offices in Asia, Europe, and North America. Differentiating from other consultancies, TechLead stimulates the growth and success of its clients by emphasizing rigorous analysis and expert judgment resulting in actionable recommendations. TechLead's staff of seasoned professionals combines unique and extensive knowledge with more than 140 years of in-depth industry experience to transform data into INFORMATION and knowledge into UNDERSTANDING yielding substantiated insight into an organization's most demanding business and technology needs.

A graduate of Stanford University, Dr. Bauer focuses in the areas of strategic technology planning, market analysis and international business development. With more than 30 years experience, Dr. Bauer also serves on Advisory Boards for a variety of academic and governmental institutions bringing tremendous breadth and depth to his work.

- Founder, Pan Pacific Microelectronics Symposium
- Fellow, IMAPS (1994), IMAPS President (2001-2002)
- SMTA Board of Directors (1997-2001)
- SMTA International Leadership Award (2007)
- SMTA Luminary (2009)
- Senior Member IEEE/CPMT
- Founder, ISHM/IMAPS Advanced Technology Workshop Program
- University of Portland Pamplin School of Business Administration Significant 75 Alumni Award

April Meeting

Date: Wednesday April 18th 2012
Time: TBD
Place: TBD
Speaker: Rick Love – Cookson Electronics
Topic: Fine Pitch Printing Challenges

Abstract:

SMT design evolution has provided today's Process Engineer with the challenge of accommodating smaller components in high density design formats while retaining the large area requirements of traditional components, and the requirement to accomplish this in a Lead Free process. We will examine the importance of integrating all aspects of printing Fine Pitch Components; Printer, PCB, Stencil, and Solder Paste. We will examine the effects of Alternative Alloys on defects generated in the printing process.

Bio:

Rick Love has worked with Alpha Metals since 1980. Early sales management responsibilities for the Northwest gave way, in 2001, to specialized training for Stencil Design with responsibility for the western half of the Americas. In 2003 Rick began an intense focus on the Lead Free Initiatives coming out of the EU (RoHS) and has led the responsibility for technical support for Lead Free Transition in the Western Region. Rick is one of a core team within Cookson Electronics that has received training across technologies to integrate and capitalize on Cookson's expertise in Laminates (Polyclad), Surface Finishes (Enthone), and Assembly Materials (Alpha Metals). In 2008, Rick was promoted to The Americas Sales Manager for Engineered Products Group, which contains the Stencil Product Line, with a recent focus on the integration of stencil design into the whole printing process. Currently, Rick is the District Sales Manager for the Western States. Rick is a graduate of San Jose State University and has spent his entire career in Electronic Materials and Processes.



Be Part of the
Solution...

SMTA International
Conference: Oct. 14 - 18, 2012
Exhibition: Oct. 16 - 17, 2012
Walt Disney World Dolphin
Orlando, Florida

President's Message

I'm conflicted. Sitting here in Seattle area, it occurred to me that the economy must be coming back. There are people all over, going somewhere, doing something. But wait, empty office buildings, empty factories, "For Lease" signs everywhere, and freeways rougher than some of the logging roads I drive on. I haven't been in the area for a couple years, but it just seemed different, not the cluster I had grown accustomed to. When I talk with one guy, he'll tell me he is so busy he can't keep up. Talk to others, it's really slow. With some companies having job openings they can't fill due to the applicants not having the right skill sets to others with reduced hours, pay freezes, hiring freezes, or layoffs. Is it doom and gloom or full recovery on the way? I'm not buying either quite frankly. I believe it's just going to be a slow grind for all of us and we just need to stay positive and keep working hard.

What I am sure of is the SMTA Oregon Chapter. What a great group of volunteers I have had the pleasure to work with these past many years. From your officers, speakers, and members comes an energy and commitment to keeping you all informed of the latest trends of the industry. We're embarking on a new year with some aggressive plans in place to keep our tradition going. Some of our goals include quarterly meetings in the Seattle area in March, May, September, and November in addition to our monthly meetings in the Portland area. We're planning a two city Supplier Day in May. We'll be in Beaverton on Wednesday the 16th and in the Bellevue area on Thursday the 17th. It looks like our Training Day will take place in June this year featuring one of the top instructors in the industry. Need more? You can't forget about the Annual Charity Golf Event in August, and of course our year end Member Appreciation Dinner in December. Want to help? We're always looking for new volunteers to help on committees, at meetings, or any of the all day events. Just contact any of the officers to find out how to get involved.

This is all getting me down, so I guess it's time to go do what I do best these days.... Fish!

JustDave



2012 Calendar of Events

Mark your calendars for the many events that are planned for the coming year. Check our chapter website often as we update speakers, locations, and meeting times.

Date/Time	Event	Location	Phone	Contact/Email
March 14, 2012 4:30 PM	RoHS Recast By Rob Rowland	BiAmp Corp.	503-708-5177	Dave Larson Dave.larson61@yahoo.com
March 15, 2012 5:00 PM	Embedded Assembly By Chuck Bauer	Physio Controls	503-708-5177	Dave Larson Dave.larson61@yahoo.com
April 18, 2012 TBD	Printing/Dispensing Challenges By Rick Love	TBD	TBD	TBD
May 16, 2012 1:00 PM	Supplier Day Tech Expo (Beaverton)	Tektronix Building 38	503-574-4900	Alan Siebenthal alan@kirbydemarest.com
May 17, 2012	Supplier Day Tech Expo (Seattle)		503-574-4900	Alan Siebenthal alan@kirbydemarest.com
June 12, 2012 TBD	Chapter Tutorial Program - DfM	TBD	TBD	TBD
August 5, 2012 10:00 AM	Charity Golf Event	Chehalem Glenn Golf Course	503-708-5177	Dave Larson Dave.larson61@yahoo.com
September 19, 2012	September Meeting on Failure Analysis	TBD	TBD	TBD
October 24, 2012	October Meeting on Conformal Coating	TBD	TBD	TBD
November 14, 2012	November Meeting on Surface Finishes	TBD	TBD	TBD
November 15, 2012	Seattle Area Meeting	TBD	TBD	TBD
December 5, 2012	Member Appreciation Dinner	TBD	503-819-4895	Ruth Conner radservices@aol.com

Membership Drive

With light at the end of the business tunnel actually showing some brightness, we hope you and your company can help expand our membership as we believe membership offers many benefits. To help us grow, please consider the following:

- If a current member, continue your membership at or before your anniversary date
- Encourage others within your company to join
- Encourage other industry associates to join

Besides the excellent technical content of the meetings, one of the biggest benefits is the networking that takes place. Our meetings give you the chance to meet your colleagues and exchange information and ideas on issues you may be having. Many members are willing to share their experiences and you can then take this information back to your job and possibly resolve issues sooner and advance your career quicker. When it becomes necessary for a new job search being known and having these contacts can be a major advantage.



Membership benefits

- Networking with local members and access to them when seeking a solution to a production or process problems you may encounter
 - just send it to us and we will pass it onto our membership
 - this has happened with usable solutions back to the requester within the day (often a value many times the membership cost)
- Free access to downloadable Knowledge Base Library consisting of thousands of articles
- Quarterly Journal of SMT
- Member rates in the SMTA Bookstore
- Access to Membership Directory
- Access to Positions Wanted and Positions Available page

Individual membership is \$75 and Participating membership, employees at sites which already have a global or corporate membership, is \$50.

<http://www.smta.org/membership/benefits.cfm>

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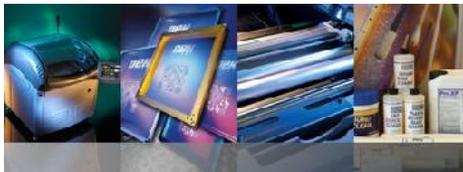


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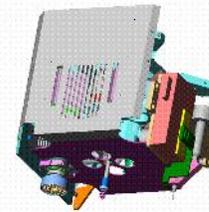
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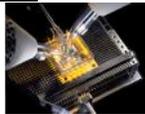
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