

## Minutes of the Joint ECA Soldering Technology Committee (STC)

Tuesday, Oct 18, 2005

Doubletree Hotel

Memphis, TN

**The scope of the Soldering Technology Committee (STC):** The STC encompasses soldering practices (soldering iron-mass reflow techniques) and associated soldering materials (solders, pastes and adhesives, and flux/cleaning agents). However, the Committee will focus on solderability test method development for printed through-hole (PTH) and surface mountable components. One of the major functions is to promote commonality and standardization of soldering test methodology within the EIA Sectors.

The meeting was called-to-order at 1:30 PM by IPC Committee Chairman, Dave Hillman.

Name	PI*		Organization	Telephone	Fax	Email
	V	T				
<b>Voting members</b>						
Dave Hillman	M	U	Rockwell Collins	319.295.1615	319.295.6060	<a href="mailto:ddhillma@rockwellcollins.com">ddhillma@rockwellcollins.com</a>
Kory Schroeder	M	P	Stackpole Electronics	919.875.2495		<a href="mailto:kschroeder@seielect.com">kschroeder@seielect.com</a>
Jason Young	M	P	Kemet Electronics	864.967.6859	864.967.6876	<a href="mailto:jaysyoung@kemet.com">jaysyoung@kemet.com</a>
Mike Lauri	M	U	IBM	845.892.0442	845.892.0607	<a href="mailto:laurim@us.ibm.com">laurim@us.ibm.com</a>
Laird L. Macomber	M	P	Cornell Dubilier Electronics	864.843.2277	864.843.3800	<a href="mailto:lmacomber@cde.com">lmacomber@cde.com</a>
Michael Griffith	M	P	KOA	814.362.5536	814.362.9726	<a href="mailto:mgriffith@koaspeer.com">mgriffith@koaspeer.com</a>
Len Metzger	A	P	Panasonic	201.348.5244	201.348.7474	<a href="mailto:metzgerl@us.panasonic.com">metzgerl@us.panasonic.com</a>
Ray Lehman	M	P	Vishay	402.563.6332		<a href="mailto:ray.lehman@vishay.com">ray.lehman@vishay.com</a>
Karun Malhotra	M	P	Murata Electronics	770.433.5788	770.436.3030	<a href="mailto:Kmalhotra@murata.com">Kmalhotra@murata.com</a>
Mary Carter-Berrios	M	P	Kemet Electronics	864.228.4006		<a href="mailto:marycarterberrios@kemet.com">marycarterberrios@kemet.com</a>
Carl Lindquist	M	P	SAN-O Industrial Corp	908.218.8899	908.707.9437	<a href="mailto:fuseman@atglobal.net">fuseman@atglobal.net</a>
Paul Richardson	M	P	Vishay	770.887.2021	770.887.1810	<a href="mailto:david.richardson@vishay.com">david.richardson@vishay.com</a>
Dave Toomey	A	P	Vishay	207-490-7257	207-490-7279	<a href="mailto:dave.toomey@vishay.com">dave.toomey@vishay.com</a>
<b>Absent voting members</b>						
Doug Romm	M	P	Texas Instruments, Inc.	903.868.7388	903.868.5616	<a href="mailto:doug@ti.com">doug@ti.com</a>
Dan Giblin	M	P	Cooper Bussman	636.527.1253	636.207.3604	<a href="mailto:dgiblin@buss.com">dgiblin@buss.com</a>
Mark Strandquest	G	G	IHS, Inc.	303.397.2551		<a href="mailto:Mark.strandquest@ihs.com">Mark.strandquest@ihs.com</a>
Lucy Lee	M	P	Kemet Electronics	864.228.4485	864.967.6876	<a href="mailto:lucylee@kemet.com">lucylee@kemet.com</a>
Michael Cannon	M	P	TDK Corporation of America	847.390.4317	847.390.4498	<a href="mailto:mcannon@tdktca.com">mcannon@tdktca.com</a>
Stephen Olster	G	P	Mini-Systems Inc.	508.695.0203	508.695.6076	<a href="mailto:solster@mini-systemsinc.com">solster@mini-systemsinc.com</a>
Ted Coler	M	P	Vishay	402.563.6417	402.644.4206	<a href="mailto:ted.coler@vishay.com">ted.coler@vishay.com</a>
Travis Ashburn	M	P	Kemet	864.228.4320	864.967.6876	<a href="mailto:travisashburn@kemet.com">travisashburn@kemet.com</a>
Nick Holmberg	M	U	Intel Corporation	480.552.0245	480.552.8471	<a href="mailto:nicholas.l.holmberg@intel.com">nicholas.l.holmberg@intel.com</a>
Matt Joiner	A	P	Cooper Bussman	636.527.1417	636.207.3613	<a href="mailto:mjoiner@buss.com">mjoiner@buss.com</a>
Chris Reynolds	M	P	AVX Corporation	843.444.2868		<a href="mailto:creynolds@avxus.com">creynolds@avxus.com</a>
Susan Barkal	M	P	KEMET Electronics	864.228.4140	864.967.6876	<a href="mailto:susanbarkal@kemet.com">susanbarkal@kemet.com</a>
Jeff Cannis	M	P	Amkor Technology	480.821.2408	480.821.2328	<a href="mailto:jcann@amkor.com">jcann@amkor.com</a>
Edward Li	A	P	AEM			<a href="mailto:eli@aem-usa.com">eli@aem-usa.com</a>
Liwu Wang	M	P	AEM, Inc.	858.481.0210	858.481.1123	<a href="mailto:lwang@aem-usa.com">lwang@aem-usa.com</a>
Mark Kwoka	G	P	Intersil Corp	321.729.5790		<a href="mailto:mkwoka@intersil.com">mkwoka@intersil.com</a>
Joe Biernacki	M	P	SEI Electronics, Inc.	915.790.2449	915.858.1793	<a href="mailto:jbiernacki@seielect.com">jbiernacki@seielect.com</a>
Barney Martin	G	G	NEDA	678.393.9990	678.393.9998	<a href="mailto:bmartin@nedassoc.org">bmartin@nedassoc.org</a>
William Gisseler	M	P	TDK Corporation of America	847.390.4442	847.390.4498	<a href="mailto:wgisseler@tdktca.com">wgisseler@tdktca.com</a>
Jim Canner	A	P	Murata Electronics	814.231.9085		<a href="mailto:jcanner@murata.com">jcanner@murata.com</a>
Bob Druckenmiller	G	P	FCI USA, Inc.	717.938.7376	717.938.7991	<a href="mailto:rdruckenmiller@fciconnect.com">rdruckenmiller@fciconnect.com</a>
Harvey Waltersdorf	G	P	AVX Corporation	919.878.6307		<a href="mailto:Harvey@avxus.com">Harvey@avxus.com</a>
Bill Russell	M	U	Raytheon	972.344.7544	972.344.8592	<a href="mailto:wrussell@raytheon.com">wrussell@raytheon.com</a>
Patrick Kyne	G	G	DSCC	614.692.0562	614.693.1644	<a href="mailto:Patrick.kyne@dla.mil">Patrick.kyne@dla.mil</a>
Yumi Chiong	M	P	KRFM America Inc.	703.351.5082		<a href="mailto:yumi2007@krfamerica.com">yumi2007@krfamerica.com</a>
Aihara Ming Lee	M	P	AEM, Inc.	858.481.0210	858.481.1123	<a href="mailto:xmli@aem-use.com">xmli@aem-use.com</a>
Brian Piscitelli	M	P	KOA Speer Electronics	814.362.5536x259	814.362.9726	<a href="mailto:bpiscitelli@koaspeer.com">bpiscitelli@koaspeer.com</a>
Maher Mahmud	A	U	IBM	845.892.3319		<a href="mailto:mmahmud@us.ibm.com">mmahmud@us.ibm.com</a>
Greg Wood	M	G	American Competitiveness Inst.	610.362.1200x221	610-362-1290	<a href="mailto:gwood@aci_corp.org">gwood@aci_corp.org</a>
Stephen Todd	M	P	FCI Electronics	717.938.7942	717.938.7991	<a href="mailto:Toddse@bergelect.com">Toddse@bergelect.com</a>
Maureen Williams	M	G	NIST	301-975-6170	301-975-4553	<a href="mailto:Maureen.Williams@nist.gov">Maureen.Williams@nist.gov</a>
Kil-Won Moon	M	G	NIST	301-975-6148	301-975-4553	<a href="mailto:kwmoon@nist.gov">kwmoon@nist.gov</a>
<b>Nonvoting members present</b>						
Ed Mikoski	S	G	EIA	703-907-8023	703-875-8908	<a href="mailto:Emikoski@ecaus.org">Emikoski@ecaus.org</a>

\* PI = Participant identification: V = voting status; M = member; G = guest; S = staff; T = participant type; P = producer; U = user; G = general participant

## **1 Committee organization and procedures**

### **1.1 Membership and attendance**

Self-introductions were made and attendance was taken.

### **1.2 Approval of the Agenda**

The Committee unanimously accepted the Agenda as presented.

### **1.3 Approval of the Minutes**

The Committee unanimously accepted the Minutes of the last meeting as written.

## **2 Old business**

### **2.1 Review/status of ANSI J/STD-001-C**

Dave Hillman reviewed the results of the committee comments on the JSTD-002C Working Draft. The committee reviewed the comment dispositions, discussed additional proposed changes and general formatting concerns. The committee discussed the applicability of steam conditioning for Pbfree component finishes and developed a proposal for D. Hillman to present to the IPC half of the committee. The IPC and STC views of the steam conditioning applicability will be put into the Final 002C Working Draft for committee comment and review. The Final 002C Working Draft will be send out to the committee before Thanksgiving for a 30 comment period. The first 002C Specification ballot is anticipated to before the Christmas Holidays.

## **3 New business**

The committee spend the entire meeting time focused on review of the solderability DOE and revision to J-STD-002. Publication of updated J-STD-002 is the major accomplishment that this committee and IPC/JEDEC committees are striving towards this year.

### **3.2 Replacement for Steam Preconditioning**

The team discussed plans for a study to look at possible replacement for steam preconditioning. The team agreed that we will develop a test plan at the next meeting, after completion of major activity for update to J-STD-002.

### **3.3 Gauge R&R for wetting balance test**

The wetting balance test method is currently listed in ANSI/J-STD-002 under the section "Tests without Established Accept/Reject Criterion". Input from Dave Hillman was that the IPC committee discussed the options of either validating or removing the wetting balance method as an accepted method. The team agreed that we will develop a test plan at the next meeting, after completion of major activity for update to J-STD-002.

## **4 Next meeting**

The next meeting is scheduled to be held in conjunction with the ECA Spring 2006 ECA Engineering Summit. ECA Engineering Summit will be held at the Sheraton Yankee Trader Beach Hotel in Fort Lauderdale, Florida week of April 24-27, 2006.

## **5 Adjournment**

The Committee moved, seconded, and unanimously agreed to adjourn at 5:00PM.

This meeting was conducted in accordance with the EIA legal guidelines and the EIA manual of organization and procedure.

*Doug Romm*

---

STC Chairperson