



Minutes of S-1 Steering Committee/ General Session

Tuesday, 05 October, 2004

Holiday Inn On the Bay

San Diego, CA

1.0 Introductions

1.1 Newly-elected Chairman Mike Lauri called the meeting to order at 08:00am. The committee conducted a round of introductions.

1.2 Attendance

An attendance sheet was circulated. The attendance was as follows:.

Attendees:

NAME	COMPANY
Edward Li	AEM
Frank B. Hayward	American Technical Ceramics
Chris Reynolds	AVX
Dan Giblin	Cooper Bussmann
Matt Joiner	Cooper Bussmann
Laird Macomber	Cornell Dubilier
Ed Mikoski	EIA/ECA
Phil Diglio	EPCOS Inc
Mike Lauri	IBM
Nick Holmberg	Intel Corporation
Susan Barkal	Kemet
Michael Griffith	KOA
Stephen Olster	Mini-Systems Inc.
Karun Malhotra	Murata Electronics
Terry Don Charles	Panasonic
Len Metzger	Panasonic
Carl Lindquist	San-O-Industrial Corp
Bill Gisseler	TDK
Ted Coler	Vishay
David Richardson	Vishay
Dave Toomey	Vishay
Dave Ritchey	Yageo

A quorum was present.

<u>Member Organizations Present</u>	<u>Present at this meeting</u>	<u>Present at previous meeting?</u>	<u>Present at meeting prior to previous?</u>
AEM, Inc.	Y	Y	N
American Technical Ceramics.	Y	Y	Y
AVX	Y	Y	Y
Cooper Bussmann	Y	Y	Y
Cornell Dubilier	Y	Y	Y
Epcos	Y	N	Y
IBM	Y	N	Y
Intel Corporation	Y	Y^	n/a
Kemet	Y	Y	Y
KOA Speer Electronics	Y	Y	Y
Mini-Systems Inc.	Y	Y	N
Murata Electronics	Y	Y	Y
Panasonic	Y	Y	Y
San-O-Industrial Corp	Y	Y	Y
TDK	Y	Y	Y
Vishay	Y	Y	Y
Yageo	Y	Y	Y

^Indicates activated as member of committee

<u>Member Organizations Absent</u>	<u>Present at This Meeting?</u>	<u>Present at previous meeting?</u>	<u>Present at meeting prior to previous?</u>
CTS*	N	N	N
DSCC	N	N	Y
KRFM America	N	N	Y
Maxwell Technologies*	N	N	N
SEI Electronics, Inc.	N	Y	Y
Taiyo Yuden	N	N	Y
Visteon*	N	N	N

* Indicates not used in determination of quorum due to record of non-attendance

<u>Other Organizations Present</u>
EIA/ECA

2. Approval of Agenda and Previous minutes

- 2.1 The agenda was approved and the minutes for the previous meeting held in Tampa, FL on 20 April 2004 were approved.
- 2.2 Correspondence - User Queries
ECA received a letter from a user asking for what standardization of MLCC dielectrics exist. We referred this letter to the P2.1 Ceramic capacitor subcommittee.

3. Sub-Committee & Working Group Reports

Individual Committee Representatives reported on the progress of the group they were representing. The following reports were presented. Details can be found in the individual committee minutes.

- P-1 Resistors - Working on finalize EIA 575 and 576. EIA 886 and 887 to be reviewed. ESD Testing in 703 to be reviewed.
- P-10 IPD - Reviewing status of PN4944 and PN4946 and mechanical outlines
- P-14 Fuses - Working on PN4951, PN4357, and PN5074
- G-11 - Component Parts Committee - no report
- P-2.1 Ceramic Working Group - follow-up on EIA 595 and 591. Received EIA 469 revision b. Life test discussion as well as Tin Whisker bulletin
- P-2.5 Tantalum Capacitors - revising polymer tantalum spec, and generating a niobium spec. along with revising the standard 535 Molded Chip spec
- P-4 Mechanical Outlines - Standardizing outlines, formats, coding, etc. and asking for submissions by the various subcommittees for their outlines.
- P-2.2 and P2.4 Aluminum, Film, and Mica Capacitors - moved forward on creating draft of SMT Film spec and SMT polymer aluminium spec.
- P-3 Inductive Components - revising 944 and 945
- CE-2.0 and CE-3.0 Connectors and Sockets - no report
- Automated Component Handling - no report
- Soldering Technology – Will be meeting this afternoon and are actively engaged in the next revision of J-STD 002C
- Engineering Department Executive Committee (All Chairs Meeting) will be held

on Wednesday afternoon. All Chairs should attend, and anyone else interested in the standards policy for the EIA and ECA, and the logistics and planning for the Summit Sessions. Any appeals regarding the standards process for standards development would also be addressed by this group.

4. Environmental Update – EIA Ed Mikoski

EIA Environmental Update - Development of Materials Composition Declaration Guide (ECA / JEITA / EICTA) ballot closed yesterday. A few issues/comments need to be resolved. The guest speaker at the Tuesday Dinner will be from EIA to speak on the Environmental Issues.

5. Other event announcements

Ed Mikoski mentioned that in the registration packets there were brochures on the call for papers for the CARTS in 2005 for those who may be interested. He also iterated that CARTS symposium is now owned by ECA and there are plans to expand the program.

6. Vice Chair Nomination And Selection

- Dave Richardson was nominated and unanimously elected as the Vice-Chair/Secretary of S-1. There were no additional nominations from the floor.

7. Presentations on Tin Whiskers

- Karun Malhatra of Murata showed that there is a need for a standard whisker test. Murata showed the optimum tin whisker growth happens in temp cycling from -40C to 85C. Damp heat also is a good test to detect growth at 60C and 93% relative humidity for 4000hrs. NEMI is coming up with a Tin Whisker Acceptance Test Requirements document as well. The P2.1 Ceramics committee has issued a ECA cComponents Bulletin (CB-19) which is a statement on tin whiskers. Karun has asked that all members/committees give their feedback on the bulletin so it can be reissued under the banner of all the various passive component engineering working groups.
- Susan Barkal Kemet presented results of their Tin whisker study to the NEMI guidelines to various conditions. A paper by Kemet is attached to the Minutes. They did both tin lead, SAC and epoxy mounting, under various attachment conditions. Their data showed that the higher the reflow temperatures, the smaller the tin whisker growth seen. At lower reflow temperatures, the longer the tin whiskers. Zero whiskers on tantalums found.
- Edward Li of AEM presented their results of their Tin whisker study. AEM wants to help passive suppliers supply reliable parts to the industry and can offer a service to put terminations onto passive devices.

- Chris Reynolds of AVX presented their Tin whisker study results. It showed similar results to the other suppliers Results. Again, they stated that to date, they cannot grow tin whiskers on tantalums. This is probably due to 95-99 percent of the leadframe being covered in solder.

Action Items from presentations:

- Sue Barkal will find out who the contact is for NEMI so that we can keep ourselves informed as to their activities (if any) on tin whisker test methods or other information generated by NEMI.
- Everyone to review the CB19 tin whisker bulletin and comment to Karun of Murata so he can update the bulletin for other component types.

8. New Business

None

9. FUTURE MEETINGS

- Spring 2005 - New Orleans, LA May 16-19 at Chateau Sonesta
- Fall 2005 - Memphis with back up being San Antonio
- Spring 2006 - Florida voted as best choice of group

11. Adjournment

Meeting adjourned at approximately 11:00am. .

This meeting was conducted in accordance with the EIA Legal Guidelines and the Manual of Organization and Procedures.

Mike Lauri
Chairman

Dave Richardson
Co-Chairman/Secretary