



Minutes of Automated Component Handling Committee (ACH)

Thursday, 28 September 2006 Silver Legacy Hotel Reno, NV

ACH Committee's scope:

Develop and maintain engineering standards and publications for tape, reels, magazines, trays, etc. for handling components in production. Also, provide technical input to US national positions on related international standards issues and proposals.

Attendees:

NAME	COMPANY
Teri Arguelles	Jabil Circuit, Inc.
Ed Bishop	Taylorreel
Ray Bloom	Advantek
Scott Carter	Tek Pak, Inc.
Mary Carter Berrios	KEMET Electronics
Ted Coler	Vishay
Joe Delorenzi	Arrow Electronics
Charles Gutentag	Tempo Electronics
Gonzalo Herrera	Jabil Circuit, Inc.
Mike Lauri	IBM
Doug Laven	V-Tek, Inc
Mihee Lee	Samsung Electro-Mechanics
Ed Mikoski	EIA/ECA
Henry Sipes	Samtec Inc
Derek Wyatt	Keaco

1. Call to order

Chairman Scott Carter opened the meeting at approximately 8:15am followed by self-introductions of the attending participants.

2. Membership & Attendance – Introductions

A quorum was present.

<u>Member Organizations Present</u>	<u>Present Reno</u>	<u>Present Ft Lauderdale</u>	<u>Present Memphis</u>	<u>Present New Orleans</u>
Advantek, Inc.	Y	Y	N	N
IBM	^Y	n/a	n/a	n/a
Jabil Circuit, Inc.	Y	Y	^Y	n/a
Keaco, Inc.	Y	N	Y	Y
KEMET Electronics	Y	^Y	n/a	n/a
Samsung Electro-Mechanics	Y	^Y		
Samtec	Y	N	Y	Y
Taylorreel	Y	Y	Y	Y
Tek Pak, Inc.	Y	Y	Y	Y
Tempo Electronics	Y	^Y	n/a	n/a
Vishay	Y	Y	Y	Y
V-Tek, Inc.	Y	Y	N	N

^Indicates activated as member of committee

<u>Member Organizations Absent</u>	<u>Present Reno</u>	<u>Present Ft Lauderdale</u>	<u>Present Memphis</u>	<u>Present New Orleans</u>
3M	N	Y	N	Y
AVX	N	Y	N	N
EDG Taping Equipment	N*	N	N	Y
Fuji America Corp	N	^Y	n/a	n/a
Hover-Davis, Inc.	N*	N	N	Y
Nu-Way Electronics	N	Y	Y	Y
Presidio	N	N	^Y	n/a
Yageo/Phycomp	N*	N	N	Y

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

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

3. Approval of Agenda and Adjustments

A motion was made to accept the meeting agenda by Mr. Ted Coler and seconded by Mr. Henry Sipes. The motion carried with no objections.

4. Approval of April 2006 minutes

A motion was made to accept the April 2006 meeting minutes by Mr. Charlie Gutentag and seconded by Mr. Henry Sipes. The motion carried with no objections.

Correspondence

Mr. Ed Mikoski reported on some concern in the industry from various users with compliance issues of 481-C regarding component orientation. Discussion followed.

6. Sub-Committee & Working Group Reports

6.1 Snapshot of current projects and documents—Carter

Mr. Ed Mikoski opened discussion regarding archived verses rescinded terminology, and what it could mean for the availability of rescinded documents.

6.2 Update on rescission of EIA-481-A, EIA-481-1, EIA-481-2, EIA-481-3, EIA-783, and EIA-784—Mikoski

Mr. Charlie Gutentag suggested to put the emphases of education back on to the user by sharing information with various customers and clarify that 481-C is a standard not a specification. There was further discussion regarding a concern to rescind these documents based on the discussion under topic 6.1. Going forward, outdated documents under review will be given an archived status by this committee. Mr. Charlie Gutentag made a motion that EIA-481-A, EIA-481-1, EIA-481-2, EIA-481-3, EIA-783, and EIA-784 to be either archived and / or superseded by 481C, motion was seconded by Mr. Ted Coler. Motion passed with no objection.

6.3 Update on archival of ACH-2000--Mikoski

Mr. Scott Carter will visit with Mr. Ed Mikoski regarding the direction of this action item.

6.4 Update on archival of EIA-726 (PN-5128) and EIA-763 (PN-5129)--Mikoski

Mr. Scott Carter will visit with Mr. Ed Mikoski regarding the direction of this action item.

6.5 Update on ACH-PEPS Collaboration Task Force—Hand over EIA-519 and EIA-383 back to S-1 committee--Ed Mikoski/Dave Ritchey

Mr. Ed Mikoski noted his approval to archive these documents; however, he would like to inquire about industry usage before proceeding. Mr. Mike Lauri of IBM will have his group review these standards before advising to archive them. Mr. Lauri will give his report at the next ACH meeting.

6.6 Update on Polarized Component Orientation Bulletin—Mikoski/Carter
Mr. Ed Mikoski will meet with Mr. Chris Reynolds of AVX.

6.7 Update on ballot to reaffirm EIA-296 (PN-5131)—Coler
Mr. Ted Coler motioned he sent a letter to the EIA office with no response in 8/18/06. He will resend the correspondence to Ms. Cecelia Yates. Mr. Coler further expressed that everything was approved and that the ballot just needs to be sent out to members.

6.8 Letter ballot results for EIA-704 (PN-5130)—Carter
Mr. Carter reviewed the results of the balloting and has corresponded with Ms. Cecelia Yates. A copy of the negative response will need to be sent by Mr. Carter to Ms. Yates.

6.9 Letter ballot results for EIA-747 (PN-5147)—Gutentag
Mr. Carter expressed some concern regarding the balloting count; however, Mr. Ed Mikoski mentioned that the voting body was enough to have a determination to move forward. The negative response can be voted on and rejected by the ACH group if necessary. The one (1) negative response needs to be addressed with the group and resolved with the author before approval can be achieved.

Mr. Charlie Gutentag addressed the negative ballot comment regarding the adhesive backed material. Mr. Gutentag provided a hard copy rebuttal report and physical tape samples in response to the negative ballot from 3M. The response to the negative ballot was discussed as a (non) patent issue, as well as the compartment having no barring on the position of the device. At the time of this meeting the committee was not aware of any patent infringement. A motion to override the negative vote was made and resend 3M's response by Mr. Charlie Gutentag and seconded by Mr. Ted Coler. Mr. Scott Carter will send a response back to 3M. The motion passed with no objection.

Mr Gutentag also presented minor editorial changes to the Tempo Ballot that had already been corrected before the time of the meeting. These minutes will act as the communication necessary back to Tempo regarding acknowledgement of the editorial changes. Mr. Charlie Gutentag motioned to approve the committee draft of this publication of EIA-747; Mr. Ray Bloom seconded the motion. The motion passed with not objection.

6.10 Small Width/Pitch Task Force (PN 5081)--Update on findings and report from IEC TC40/WG36 meeting in May--Rick Howe, Maynes, Carter, Gutentag, and Wischoffer

Mr. Charlie Gutentag summarized the 2006 IEC meeting in Korea with the ACH committee. Regarding small width/pitch, Mr. Gutentag mentioned that the IEC group had some concern regarding the major changes that would need to be made to feeders. It was reported that IEC minutes are available; Mr. Gutentag will look into getting the minutes and passing them on to Mr. Carter and Mr. Mikoski.

The Marda PowerPoint presentation from the Ft Lauderdale meeting was revisited to educate the group on the Small Width/Pitch carrier and cover tape initiative. Mr. Carter motioned that he would like to keep this Task Force alive and asked the group for new members. Mr. Ray Blume of Advantek and Mr. Doug Laven of V-TEK agreed to be a part of this group.

Mr. Mikoski mentioned that we should acquire a list of people from the S1 group to keep a dialogue open. Mr. Mike Lauri of IBM will make available an S1 roster and minutes to Mr. Carter. Mr. Carter will contact Mr. Maynes and Mr. Howe to see at what level each one will contribute in the future to this Task Force.

Mr. Mikoski asked if we should open a discussion with ANSI regarding the confusion of inches verses mm for future meetings.

6.11 EIA-468 Task Force (PN-5132)--Coler, Bill Aldeen, Doug Laven, and Maynes

This group has made no progress on this issue since the last meeting. Mr. Bill Aldeen asked Mr. Carter that a Co-Chairman should be put in place. The Task Force group agreed to leave the members as is without the addition of a Co-Chairman. It was also discussed by Mr. Ted Coler and Mr. Doug Laven to revisit this topic with Mr. Aldeen via a conference call. Mr. Laven will contact Mr. Aldeen to set up a formal Task Force conference call meeting. Mr. Aldeen will contact Mr. Mikoski.

6.12 ACH Application Guide--Status Report--Sipes

Mr. Henry Sipes reported that very little work has been done on the ACH Application Guide, and that he may need to turn his duties over to another member of the group. Mr. Carter asked if this project could be broken up into smaller pieces and effort shared amongst the group.

Mr. Henry Sipes shared his presentation with the group regarding his work on the ACH Applications Guide. Mr. Sipes also mentioned that he would like to see this guide targeted to more cross-sectional groups within an organization other than just those from an engineering standpoint.

Mr. Mikoski outlined the ECA Technology Message Board collaboration tool that is available on the ECA Website for shared projects efforts.

6.13 Editing Committee—Recommendations for improved orientation guidelines in EIA-481-C—Maynes, Reynolds, Carter, Swanson, Arguelles, and Szopa
Mr. Gonzalo Herrera of Jabil Circuits, Inc gave a presentation regarding polarized standardization to eliminate downtime and rework. It was also mentioned by Mr. Herrera of the importance of moving toward having a standard that addresses a national specification. Ms. Teri Arguelles reported on the complaints Jabil has observed regarding wrong polarity due to some of their customers using 481-B verses 481-C. Jabil has experienced less rejects with customers complying with rev B then with rev C. This information has promoted Jabil to converged rev. B and rev. C into on internal standard. A new problem that has arisen for Jabil is those new components that have no fiduciary points to reference from the top of the device. Mr. Herrera will head up discussions with many of the Jabil suppliers regarding their interpretation of part orientation. Mr. Mikoski suggested that ACH put an *exception to the rule* back into 481-C regarding orientation. There needs to be some further discussion with the other contract manufacturers to become a part of this group to work as one source to drive an orientation solution. Mr. Mikoski will research IPC 7351 regarding that committee's work towards the orientation issue.

7. Guest Presentation—Mr. Joe Delorenzi

Mr. Joe Delorenzi of Arrow, presented orientation concerns regarding QFP/TQFP to 481-B and 481-C. SOP orientation that are not square are being put into tape in a more traditional SOP orientation per 481-B. There is also some confusion with the wording of the flow chart in 481-C. A concern was also stated regarding SOT-223 and D-PAK devices approaching square. It was also mentioned that the peel strength portion of 481-C from 10 to 100 is too broad. Mr. Ted Coler mentioned that the standard needs to stay as stated and the suppliers need to tighten up their processes. A suggestion was made to create pictures for known packages and use them as a guide for orientation, and use the flow chart in the event that there is not a picture available. The group chose not to incorporate photos in the standard due to continuous device outline change. The data Mr. Delorenzi shared with the group will need to be included along with Jabil's findings for further discussion.

8. New Business

8.1 ACH committee representative to IEC TC40/WG36

Mr. Carter asked if Mr. Gutentag would be the ACH committee representative to IEC TC20/WG36 committee. It was also asked if he would act as the one voting member from the US to that group at this time. Mr. Gutentag has gracefully accepted the

representing responsibility. Mr. Gutentag mentioned that it would be recommended that Mr. Carter or another representative of the ACH committee attend the next IEC meeting.

9. Old Business

9.1 Marketing and new membership update

Mr. Carter requested an electronic copy of the ACH marketing brochure from Mr. Henry Sipes, so it can be placed on the EIA Web site. Mr. Sipes will update the logo on the front of the brochure.

9.2 Update on tape splicing results/guidelines-David Carey (Intel)

The splicing results will be reported on at the Spring 2007 meeting by Mr. David Carey of Intel.

10. Future Meeting—San Diego, CA, Spring April 16th to 19th 2007

11. Adjournment

A motion to adjourn was made by Mr. Henry Sipes and seconded by Mr. Derek Wyatt. The motion passed with no objection. The meeting adjourned at 4:35pm.

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

Scott Carter
Chairman

Doug Laven
Secretary