



**Minutes of Automated Component Handling Committee
(ACH)
8 October 2009 Doubletree Hotel, Savannah, GA**

ACH Committee’s scope:

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

1. Call to order

Mr. Scott Carter called the meeting to order at 8:15 am.

2. Membership & Attendance – Introductions

First	Last	Company	
Ed	Mikoski	ECA	In person
Scott	Carter	Tek Pak	In person
Doug	Laven	SCC	In person
Bill	Aldeen	Nu-Way Electronics	In person
Bill	Hall	Taylorreel	In person
Joseph	Biernacki	Stackpole Electronics	In person
James	Adams	3M	In person
Ted	Coler	Vishay	In person
Darin	Glenn	Vishay	In person
Guy	Driggers	ISI	On line (WebEx)
Ken	Ball	Consultant	On line (WebEx)
Charles	Gutentag	Tempo Electronics	On line (WebEx)

3. Approval of Agenda

Motion to approve the agenda was made by Mr. Doug Laven and seconded by Mr. Joseph Biernacki. Motion was passed with no opposition and no abstentions.

4. Approval of April 30, 2009 minutes

Mr. Aldeen mentioned that the minutes need to be sent to members in a more timely fashion as a draft copy. There also needs to be a notification once the minutes are posted to the ECA website. Motion to approve the April 30, 2009 meeting minutes was made by Mr. Aldeen and seconded by Mr. Adams. Motion was passed with no opposition and no abstentions.

5. Correspondence

5.1 EIA-763

Mr. Carter reported that correspondence had been received since the last meeting regarding EIA 763 and that the status of the document will be addressed later in the meeting during sub-committee reports. No further discussion needed at this time.

5.2 Tape Splicing

Intel and Lockheed Martin did produce correspondence since the previous meeting and the topic will be discussed in the Application Guide portion of the meeting.

5.3 Tape-and-Reel Baking Guidelines

The committee has been asked to include Tape-and-Reel baking guidelines in EIA-481-D. Mr. Carter stated that there is not enough information to include it in the standard and that this would also be outside the current bounds of the standard since it pertains to automatic handling and not component processing or treatment. Mr. Coler asked if there is a standard that includes baking already with information such as temperature ranges and what the different tape materials can tolerate. Mr. Mikoski mentioned that on our web site, we could post that this information is not currently a part of our Standard. Mr. Laven mentioned that it could be in the Application Guide as well. Mr. Adams mentioned that his company uses bulletins to provide guidelines for these types of issues. Mr. Hall asked if customers knew what material tape is made from. Mr. Aldeen mentioned that his customers want to bake tape all the time and could be interested in more information. He also agreed that the Application Guide would be a good place to state these types of issues. The committee's response back to the inquirer is that it will start a chapter in the Application Guide addressing tape baking. Mr. Adams will assist with this action. Mr. Carter will contact the party who asked the original question and let them know that the committee will work toward creating a guideline in the Application Guide.

5.4 Orientation

Mr. Carter reported that there was an inquiry about component orientation since the last meeting and that he would like to table this topic. The issue will be taken under advisement and Mr. Carter will review the notes and respond back to the party who asked the question regarding quadrants one and two.

6. Report from ECA

Mr. Mikoski, announced that he is back to support ACH and explained the different groups under Tech America. ECA is looking at becoming a part of Tech America, but this is not going to happen anytime in the near future. They will do more with the administration issues. The board does support the standards activity from the various committees. The current President is very active with committee work. Making a focus on Web meetings as well as task force meetings will be important and much of the costs will be absorbed by ECA. Meetings can be held by email and Web conference as well.

Mr. Carter mentioned that there was a drive at previous meetings to collect dues. Mr. Mikoski responded by saying the board will meet to discuss this topic. Mr. Mikoski will keep us informed after he has heard back from the board.

7. Sub-Committee & Working Group Reports

7.1 Snapshot of current projects and documents—Scott Carter

Mr. Carter discussed the ECA Summit Standards Summary Report that was included with the committee member's information packets. Mr. Mikoski mentioned that it is a *working document* that needs the committee members to review. Mr. Mikoski will work with this group to ensure that the list is updated. As an example, there was some discussion on EIA-383-B and if it is an archived document or is it still meeting the needs of this committee. Mr. Mikoski stated that every five years the committee will need to review documents to archive matured standards.

Mr. Carter mentioned that there are two items that need to be reviewed at the next meeting, both being tray standards, EIA-948 and EIA-960. Mr. Carter will contact the authors of the standards and review his findings at the next meeting.

Standard Number	Description	Pub. Date	Status	Project Number
EIA-296-F	REEL PACKAGING/COMPONENT WITH AXIAL LEADS	2000	Reaffirmation expected in 2009	PN-5131
EIA-468-C	LEAD TAPING OF COMPONENTS IN RADIAL CONFIGURATION-	2008	Recently Published	PN-5132
EIA-481-D	8-200 mm EMBOSSSED and 8-12 mm CARRIER TAPING	2008	Recently Published.	SP5173
EIA-704-A	Mechanically Interlocked Component Packaging	2007	Recently Published	PN-5130
EIA-726	8 mm Taping for Components Smaller Than 2.0 mm x 1.2 mm	1997	To be archived	PN-5128
EIA-747	Adhesive Backed Punched Plastic Carrier Taping	2006	Just Published	PN-5147
EIA-763	Bare Die and CSP Taped in 8 mm & 12 mm Carrier Tape	1998	To be archived	PN-5129
EIA-948	Component Tray for Automated Handling	2004	Active	
EIA-960	Assembly Component Tray-ACT	2005	Active	
EIA-705	Guidelines for ACH2000	1996	Active	
ACH2000	Registered New Technologies	1998	To be archived	
	Small Width/Pitch Taping Guidelines		Under Development	PN-5081
	ACH Application Guide		Under Development	

7.2 Update on archival of ACH-2000

Mr. Carter asked how documents get to an archival status. Mr. Mikoski mentioned that the document will be marked archived and placed on a historical documents list. Mr. Adams asked if we had a way to track if certain documents are being used. Mr. Mikoski said that regardless of the usage, people can still gain access. Per Mr. Mikoski, *the*

category of archived is, here is the document, but we are not going to continue to support it. Mr. Aldeen mentioned that these old documents should be taken off the ‘street’ so, as not to confuse the customer. However, Mr. Aldeen went on to say that they could also be placed in our Applications Guide. Mr. Mikoski stated that there is another group that is using a similar document like the Applications Guide to give to its customers. During archival discussions, Mr. Carter mentioned that a motion be made to archive EIA-705 (PN 5128). Mr. Bill Hall motioned to archive EIA-705 (PN 5128); motion was seconded by Mr. Adams. Motion was passed with no opposition and no abstentions.

7.3 Update on archival of EIA-726 (PN-5128) and EIA-763 (PN-5129)
Mr. Carter stated that this committee has been requested to archive EIA-726 and EIA-763. He went on to say that just because a document is archived, it can still be used. However, it’s been suggested by some members that EIA-763 may also need to be updated. Mr. Carter mentioned that these two documents were updated electronically several years ago so they could be shared with the IEC TC40/WG46. Mr. Mikoski mentioned that PN 5129 in place to revise EIA-763. Mr. Adams asked if the PN was opened to revise or withdraw. Mr. Mikoski mentioned that PN 5129 was opened in 2006 to revise the current document to an electronic format and it is still open. He went on to say that it is up to the ACH group to move forward on it and that EIA-726 needs to be in an archive status as well. Mr. Carter restated that regardless of their disposition, people can still get access to these documents.

Mr. Aldeen mentioned that Advantek has made no effort to work on a change from their initial concern last year. Mr. Driggers stated that it may come down to a tolerance issue and that they (Advantek) were asking to open the tolerances. Mr. Adams mentioned that we should leave it as archived. Mr. Carter asked for a motion to leave EIA-763 at its current status of archived and close PN 5129. The motion was made by Mr. Adams and seconded by Mr. Hall. Motion was passed with no opposition and no abstentions.

7.4 Update on Polarized Component Orientation Bulletin--EIA/ECA CB20 needs to be removed from ECA website.

Action Item: Mr. Mikoski will contact the Chair of the S1 committee and Mr. Carter to inform them that they can remove CB20 because EIA-481-D addresses the orientation issue clarified in CB20.

7.5 Update on ballot to reaffirm EIA-296 (PN-5131)—Ted Coler
Mr. Carter reported that EIA-296 had been reaffirmed according to ECA procedures since the last meeting and that PN 5131 has been completed and closed. Mr. Aldeen asked if the Rev number would stay the same, and Mr. Mikoski answered that it would remain as Rev F because it was reaffirmed without any changes. Mr. Mikoski suggested that we might want to retype the document, but Mr. Carter stated that retyping the document would not be necessary and that it should remain reaffirmed as it is currently.

7.6 Small Width/Pitch Task Force (PN 5081)—Discussion of IEC TC40/WG36 proposal for 4-mm wide x 1-mm pitch tapes—Charles Gutentag

Mr. Gutentag and Mr. Driggers joined the group via WebEx to discuss the benefits of joint meetings between IEC TC40/WG36 and ACH. Mr. Mikoski mentioned that there may be some obstacles to meet with the two groups. Mr. Ball presented his Murata Manufacturing Co., Ltd PowerPoint presentation regarding the Advantages of W4P1 embossed over W8P3 paper tape. This presentation will be made available on the ECA website. Mr. Carter asked where this proposal stands with IEC, Mr. Gutentag explained that the committee draft was approved. This is going forward and may be on the ‘street’ in the near future after it is sent out for a national committee vote. Mr. Gutentag added that because this is a Working Group document, it should be distributed as a committee draft because it is not a published document.

Action Item: Mr. Ball will send a copy of the published draft of WG36 IEC TC40 standard to Mr. Carter. Mr. Carter will forward a copy of this draft to the ACH committee and poll committee feedback. Mr. Carter will also send the application notes pertaining to bare die handling to committee members.

7.7 ACH Application Guide--Status Report--Sipes

Mr. Laven presented the work to date regarding the ACH Application Guide. Mr. Aldeen did comment on the format of capturing items that don’t belong in the EIA-481 standard. He also mentioned his concern for the format being too comprehensive. Mr. Aldeen reintroduced Mr. Laven’s idea from the previous meeting regarding the use of Frequently Asked Questions (FAQ). We could also put links on our web page to direct people to the FAQs. Mr. Hall mentioned that Mr. Ed Bishop would be able to assist with gathering information for the Application Guide. A Wikipedia format could also be use in place for this information as well. Mr. Adams suggested that we have a space located on the ECA website for the FAQs. Mr. Laven mentioned that having postings on Wikipedia could double as marketing for the ACH group. Mr. Mikoski mentioned that we need to conduct more research before posting this information on the ECA website. This Application Guide or Knowledge Base will be a place to keep information that is not appropriate for EIA-481-D. Mr. Carter mentioned that we should change the use of the Application Guide to a Knowledge Base. Mr. Aldeen will write a split pull test document for the Knowledge Base with help from Mr. Adams. It was agreed that company logos would be left out of this document, but authors could be added. Mr. Adams will take on this initiative for the next meeting. Mr. Bishop and Mr. Laven will work with Mr. Adams. Mr. Carter suggested that we could have a goal to write an article for each upcoming meeting.

8. Guest Presentations

None

9. New Business

9.1 EIA-763 Review—Advantek

See 7.3 above

9.2 Proposal for split peel force requirement for EIA-481-D—Aldeen, Laven

Mr. Aldeen and Mr. Doug Laven presented the proposal for split peel force. The group was asked to consider the changes of the proposal and these changes should be reflected in section 4.11 of EIA-481-D. The sense of the group was to contact Molex and inform them that the committee will ask for more feedback from industry. However, ACH will supply Molex with a copy of the ‘red-lined’ document from the meeting. The committee agreed that it is not interested in making a change to EIA-481-D, but will add comments to the Knowledge Base regarding split peel force. Action Item: Doug to contact Molex with ‘red-lined’ document and a definition of the Knowledge Base

9.3 Strategic Planning for the ACH Committee.

Mr. Carter explained the concept of a SWOT exercise to the group. Mr. Carter reviewed the suggestions made by some of the members and asked the group to add their ideas to the list. Mr. Carter stated that we need to find a way to conference people in to our meetings to discuss topics with a prearranged agenda that is well structured. Mr. Carter will send out the results of the SWOT information of the meeting to the committee members to prioritize for the next meeting.

10. Old Business

10.1 ESD task force—Sipes, Adams, Kummerl

Mr. Carter asked the group if we should take on EIA-541 or the integration of it into EIA-481-D. He went on to say that the problem with this Standard is it’s over 20 years old.

Mr. Mikoski mentioned that the last time it was published was 1988. Mr. Hall mentioned that he is still using it and some of his customers may use it as well. Mr. Carter mentioned that we need to understand who owns EIA -541 so we can assess a warrant to update the Standard and decide who will author the work. Mr. Adams will work with his internal group to learn more about the use of EIA-541. Mr. Hall asked if a working copy would be available to the committee. Mr. Majeski will ask the ESD association to see if there are copies available. Mr. Carter asked to consider EIA-541 to be added to the agenda for the next meeting.

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

Mr. Carter presented the information supplied by Lockheed- Martin. Mr. Aldeen mentioned that we could get help from some of our industry partners regarding the use of splicing. Mr. Carter suggested this topic be placed in the Knowledge Base. Mr. Adams

asked if this should be stated on our web site regarding ‘Best Practices’ to overcome splicing. The response to Lockheed-Martin will be that in the future, this topic will be covered in the Knowledge Base.

10.3 Marketing and new membership update—ECA website, Workshops, possible IEC TC40/WG36 joint meeting
See 7.6 above regarding TC40/WG36 joint meetings and 7.7 for ECA website discussion.

11. Future Meeting

During ECA Fall Engineering Summit, Spring 2010, Orlando, FL

12. Adjournment

Motion to adjourn the meeting was made by Mr. Aldeen and seconded by Mr. Adams.

Motion was passed with no opposition and no abstentions.

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

Scott Carter
Chairman

Doug Laven
Secretary