



**Minutes of Automated Component Handling Committee (ACH)**

**Thursday, 20 October 2005 Doubletree Hotel**

**Memphis, TN**

**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:**

<u>NAME</u>	<u>COMPANY</u>
Bill Aldeen	Nu-Way Electronics
Teri Arguelles	Jabil Circuit, Inc.
Scott Carter	Tek Pak, Inc.
Bill Hall	Taylorreel
Gonzalo Herrera	Jabil Circuit, Inc.
Ray Lehman	Vishay
Ed Mikoski	EIA/ECA
Christine Pollock	Presidio Components
Henry Sipes	Samtec, Inc.
Gabriela Szopa	Jabil Circuit, Inc.
Derek Wyatt	Keaco, Inc.

**1. Committee Organization & Procedures**

Chairman Scott Carter opened the meeting at approximately 8:15am followed by round of self-introductions. A quorum was present. Ed Mikoski provided biographical information of EIA, ECA, and ACH for the visitors from Jabil.

**2. Membership & Attendance**

An attendance sheet was circulated.

<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>
Jabil Circuit, Inc.	^Y	NA	NA

Keaco, Inc.	Y	Y	Y
Nu-Way Electronics	Y	Y	Y
Presidio	^Y	NA	NA
Samtec	Y	Y	Y
Taylorreel	Y	Y	N
Tek Pak, Inc.	Y	Y	Y
Vishay	Y	Y	Y

**^Indicates activated as member of committee**

<b><u>Member Organizations Absent</u></b>	<b><u>Present at This Meeting?</u></b>	<b><u>Present at previous meeting?</u></b>	<b><u>Present at meeting prior to previous?</u></b>
3M	N	Y	Y
Advantek, Inc.	N	N	Y
AVX	N	N	Y
EDG Taping Equipment	N	Y	Y
Hover-Davis, Inc.	N	Y	Y^
V-Tek, Inc.	N	N	Y
Yageo/Phycomp	N	Y	Y

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

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

### **3. Approval of Agenda**

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

### **4. Approval of Minutes**

A motion was made by Bill Aldeen and seconded by Henry Sipes to accept the May 2005 meeting minutes. The motion carried with no objections

### **5. Correspondence**

Correspondence was received from Paul Friedrich from IEC TC40 / WG 36. The correspondence was reviewed with item 6. 5.

### **6. Sub-Committee & Working Group Reports**

**6.1 ACH Committee Standards Flowchart—presented by Scott Carter for Curt Maynes.**

The flow chart graphically presents the timeline for each active ACH standard to better assist the need for review and applicability. The flow chart lists several obsolete versions of EIA-481 that were believed to have been rescinded, but were not. The latest flowchart is attached.

Henry Sipes moves to rescind the documents superseded by EIA-481C (EIA-481A, EIA 481-1, EIA-481-2, EIA-481-3, EIA-783, EIA-784). The motion was seconded by Bill Aldeen. The motion carries with no objection.

**6.2 Review Active standards and current status of standards to be rescinded.**

EIA 481-1 discussed as possibility of archive standard. After discussion the committee decided all 481 documents other than 481-C should be rescinded and more importantly removed from the IHS Global catalog. Additionally EIA783 & EIA784 need to be rescinded because both are superseded by EIA 481-C. The committee decided more study is needed of ACH-2000, and should be added as an item of discussion of the next committee meeting.

**6.3 Review ballot for EIA/ECA-960 “Assembly Component Tray- ACT”**

The standard has been published all ballots returned were approved without comment.

**6.4 Editing committee-transformation of EIA-726, EIA-763, and EIA-704**

EIA-763 has been converted to e-format. The conversion was compiled by Lynn Milbrett of Entegris.

EIA-726 has been converted to e-format. The conversion was compiled by Peter Sakakini of Texas Instruments.

EIA-704 has been converted to e-format. The conversion was compiled by Scott Carter of Tek-Pak.

Scott reports that 704 needs to be balloted because of major changes needed. The new e-version combines four “IS” versions of IS-704, IS-704-1, IS-704-2 and IS-704-2.1.

There were no technical changes made to EIA-726 or EIA-763.

The sub-committee believes all three, 726, 763 and 704 should be sent out for ballot to get feedback and to find out if there is usage of these standards. Based upon ballot results the committee will decide if documents need to remain active or archived.

Henry Sipes moves to have a PN assigned to each of the three documents leading toward sending the documents out for ballot. The motion is seconded and carries with no objection. The following PNs have been assigned:

EIA-726 PN-5128  
EIA-763 PN-5129  
EIA-704 PN-5130

## **6.5 ACH-PEPS Collaboration Task Force—**

Discussion was postponed until next meeting. The committee will archive EIA-519 and EIA-383 if no comments are received by the Spring 2006 meeting.

## **6.6 Small Width/ Pitch Task Force (PN 5081) and Correspondence from IEC TC40/WG36**

A 4-mm-wide tape by 1-mm pitch carrier tape is being developed. A document IEC 40WG36 (Delft05/Japan) 5-1 was presented detailing the need for this small tape and an industry standard for it. The small tape is needed due to increased demand for 0402 and other small size parts. Using 4-mm tape would use ¼ materials as is currently used in 8-mm x 2-mm pitch tape. Rick Howe has expressed interest in attending the next IEC 40WG36 meeting in May in Korea. The purpose of attending this meeting is for the ACH committee to have input toward the development of the IEC standard for this type of tape. Ed Mikoski explained there are many steps needed to follow proper protocol for attending an IEC meeting.

The correspondence from Paul Friedrich of IEC TC40/WG36 was discussed. Mr. Friedrich requested Scott Carter become an official representative to WG 36 to allow for better interaction between WG30/TC40 and ACH. Ed Mikoski described the protocol that needs to be followed. First Scott will need to be appointed as an expert by the US Technical Advisor. Scott would be willing to be a conduit, but not necessarily attend meetings. It was suggested that he and Rick Howe both be added to the expert list. Bill Aldeen moved to ask ECA to have Rick Howe & Scott Carter authorized to join WG36. The motion was seconded and carried with no objection.

## **6.7 Polarized Component Task Force**

Ed Mikoski reported for Chris Reynolds. A bulletin defining polarity orientation conventions specific to tantalum components will be placed on the ECA engineering website. Once posted, the bulletin can be found at <http://www.ec-central.org/engineering/bulletin/index.htm>.

## **6.8 EIA 296 Review**

Ted Coler has reviewed EIA-296. He does not see any need for changes. This document needs to be sent to ballot to remain in current standing. Bill Hall makes a motion to have a PN assigned to EIA-296 to issue a ballot to re-affirm EIA-296. The motion was seconded and carried with no objection. The PN for the EIA-296 review is PN-5131.

## **6.9 EIA-468 Task Force (PN-5132)**

Bill Aldeen reports that some changes are needed.

- Harmonization with the IEC equivalent standard needs to be done.
- The equivalent Asian standard also needs to be obtained for harmonization

- The committee needs to consider adding a 15mm pitch in addition to the 12.7 mm (1/2") currently used
- Equipment, mostly in Japan does exist for the 15mm pitch
- A larger box size needs to be added because larger components are currently in use that need boxes large than the standard currently lists.
- This document will be converted to electronic format for easier editing.
- The next teleconference for this sub-committee is scheduled for 10/26/05

## **7. Presentation: Jabil**

Jabil's presentation stated that the inconsistent application of "Pin 1" locating rules in EIA-481-C by various suppliers is costing Jabil approximately \$1 million per plant. The problems come from suppliers using versions of EIA-481 other than the current EIA481-C. The flow chart has been confusing to some of users and suppliers because of language barriers. Jabil suggests incorporating pictures or diagrams in conjunction with the flow chart to make it clear to all users of the document what is being required.

The committee suggested that a part of the problem was caused by IHS Global continuing to sell obsolete versions of EIA-481. The committee voted to rescind the obsolete version earlier this meeting as mentioned in item 6.1. Additionally, Jabil suggested ECA and ACH need to market and promote the standards and communicate with industry better. The goal would be for the industry to know of the current standards and the projects in process in the committee. Jabil believes this would lead to more suppliers following the same packaging procedures limiting the number of inconsistencies that they and other users would have to deal with.

Ed Mikoski will put the Jabil representatives in contact with the subcommittee currently working on the PN for revising EIA-481-C to help incorporate the pictures with the flow chart, and also to make suggestions for items that perhaps should be grandfathered into the orientation rules.

## **8. New Business**

### **8.1 Elect ACH committee member to become member of IEC TC40/WG36**

Scott Carter and Rick Howe were voted to become members of IEC TC40/WG36 as listed in section 6.6

## **9. Old Business**

### **9.1 Marketing and new membership update, brochure feedback**

The brochure needs to be converted to PDF format for easy e-mail and web downloading. The file will need to be reformatted and arranged to be easier to read on a normal 8.5x11 format. It is currently formatted to be a tri-fold brochure. Bill Hall volunteered to reformat and convert the document.

The committee also discussed getting guest speakers to the meetings to encourage attendance. The committee agreed getting an expert in RFID would be desirable.

### **9.2 ACH Application Guide—progress report**

Henry Sipes reports the guide will cover 5 packaging methods: Tube; Tape and Reel; Axial; Radial; and Trays. Each method will cover several areas of application: materials; formation; transport; application; recycling; standards; troubleshooting. The purpose of the guide is to be a handbook for newcomers, a reference for engineers, and a trouble shooting guide for maintenance and production support personnel.

### **9.3 ACH-2000 Submission for Tray Standard**

The committee determined it is not necessary to pursue the ACH-2000 process for this project since a standard has already been published for the Assembly Component Tray.

### **9.4 Elect a permanent ACH committee chairman**

Bill Aldeen made a motion to make Scott Carter the permanent ACH Chairman, and Doug Laven the permanent ACH Secretary. Henry Sipes seconded and the motion carried with no objection.

## **10. Future Meeting**

The next ACH meeting is scheduled for April 27<sup>th</sup> 2006 in Fort Lauderdale.

## **11. Adjournment**

The meeting was adjourned at 4:05pm.

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

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Scott Carter  
Chairman

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Bill Hall  
Acting Secretary