

Attachment No. 1

Minutes of the CE-2.1 Subcommittee on Test Procedures 16 – 17 May 2005 New Orleans, LA

Subcommittee Chair Bill Peverill welcomed everyone, and said that the meeting would be conducted following the published agenda.

1. The minutes of the 4 – 5 October 2005 meeting in San Diego, CA were approved.
2. TEST PROCEDURE PROJECTS (BY PROJECT NUMBER)

SP-4903-B, TP-56B, Resistance to Soldering Heat (Jeff Toran)
Carl Fritz reported that this standard was published in April 2005.

SP-4942-A, TP-60, General Methods for Porosity Testing (John Healy)
Carl Fritz reported that he sent a letter to EIA, on behalf of John Healey, requesting a short 30-day SP ballot on 8 Mar 05.

PN-4945, TP-29, Contact Retention (Bill Upstone & Rick Taylor)
Carl Fritz reported that this standard was on hold pending completion of the harmonization effort. He indicated that the following is from the minutes of the October 2000 meeting. “Vince Pascucci requested that a second method be added dealing with test to failure (or contact dislodgement). Also a statement should be added to identify the present method (Specific Force) as the default. Vince Pascucci made a motion to initiate a project to add this method to TP-29 and Carl Fritz seconded. The motion was unanimously approved.” A project leader is required for this project.

PN-4963, TP-65, MFG (Max Peel)
Carl Fritz reported that Max Peel is revising this standard to delete class II and III. Class IIa and IIIa will remain active. It was unanimously moved and approved to go out directly on SP ballot.

SP-4981, TP-70, Temperature Rise Versus Current (Max Peel)
It was moved and approved that Max Peel proceed with his revision of this standard and issue a letter ballot due to the nature and complexity of the changes.

SP-5060, TP-91A, Dust (Max Peel)
Carl Fritz reported that this standard was published in April 2005.

SP-5061, TP-12A, Restricted Entry (Jeff Toran)**
Carl Fritz reported that this standard was sent to EIA for EDEC ballot 15 Feb 05 and is awaiting ANSI approval.

SP-5062, TP-81A, Combustibility of Connector Housings (Jeff Toran)
Carl Fritz reported that this standard was published in March 2005.

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SP-5063, TP-82A, Corrosivity of Plastics (Jeff Toran)**

Carl Fritz reported that this standard was published in March 2005.

SP-5064, TP-110, Thermal Cycling (Max Peel)

Carl Fritz reported that this standard was sent to EIA for SP ballot 11 Feb 2005, and is currently out on SP ballot with an expiration date of 15 Jun 2005. It was unanimously moved and approved to send the standard to EIA for EDEC ballot if there are no negative ballots received.

SP-5065, TP-11B, Resistance to Solvents (Max Peel)

Carl Fritz reported that this standard was sent to EIA for EDEC ballot 12 Mar 2005.

SP-5071, TP-48A, Metallic Coating Thickness (Jeff Toran)**

Ed Mikoski said to notify Cecelia Yates to place the front cover on the ECA publicly available web site, and to proceed with the action contained in letter to Cecelia Yates dated 14 Feb 2005 to supersede the individual test methods by ASTM procedures.

SP-5083, TP- 5, 7, 8, 24, 25, 27, 37, 40, 44, 79, 85, 87, 88, 93, 94, 97, 98 (J. Toran)**

Carl Fritz reported that letter was sent to EIA for 5-year review SP ballot on 22 Feb 2005. Ballot expired 2 May 2005. It was unanimously moved and approved to send a letter to EIA to process the subject standards as reaffirmed if there are no rejections. It was requested that the subject standards also reflect the reaffirmation date on the publicly available standards that are on the ECA web site.

SP-5084, TP-36B, Determination of Gas-Tight characteristics Test for Electrical Connectors and or Contact Systems (Jeff Toran)**

Carl Fritz reported that this standard was sent to EIA for 5-year review SP ballot on 4 Mar 2005.

SP-5085, TP-46B, Microsecond Discontinuity Test Procedure for Electrical Connectors, Contacts and Sockets (Jeff Toran)**

Carl Fritz reported that this standard was sent to EIA for 5-year review SP ballot on 4 Mar 2005. Max Peel has requested, on behalf of the military, that this standard be placed on the ECA web site of publicly available documents. In addition EIA-364-87 (Nanosecond Event Detection) should also be placed on the ECA web site for the same reason.

SP-5086, TP-89, Test Procedures for Electrical Connectors for Space Applications (Jeff Toran)**

Carl Fritz reported that this standard was sent to EIA to rescind and supersede by NASA standard as part of 5-year review on SP ballot on 4 Mar 2005.

3. TEST PROCEDURES AWAITING PROJECT NUMBERS (BY TP NUMBER)

TP-15, Contact Strength (Carl Fritz)**

It was moved and approved that Carl Fritz send out this standard for 5-year review, since the project leader has not responded

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TP-17, Temperature Life (Max Peel)

Carl Fritz reported that Max Peel is revising this standard. Request to send out on SP ballot was unanimously moved and approved.

TP-18, Visual Inspection (Frank Ruffino)**

Carl Fritz has agreed to format this standard and send out on SP ballot for Frank Ruffino.

TP-31, Humidity (Max Peel)

Carl Fritz reported that Max Peel is revising this standard. Request to send out on SP ballot was unanimously moved and approved.

TP-32C, Thermal Shock (Max Peel)

Carl Fritz reported that Max Peel is revising this standard. Request to send out on SP ballot was unanimously moved and approved.

TP-41C, Cable Flexing (Max Peel)

Max to revise. Request to send out on SP ballot was unanimously moved and approved.

TP-55, Current Cycling (Bob Druckenmiller)**

Carl Fritz reported that this standard was sent to EIA for 5-year review SP ballot 21 April 2005.

TP-59, Low Temperature (Frank Ruffino)**

Carl Fritz has agreed to format this standard and send out on SP ballot for Frank Ruffino.

TP-75, Lightning Strike (Carl Fritz)

Dave Bouzek moved and seconded by Bill Peverill to send out for reaffirmation. It was unanimously moved and approved. Carl Fritz to do.

** Past due for 5-year review

4. STG REPORT

STG-29-2.1 Performance Criteria (SP-5038, EIA-364-1000.01)-John Healy and Max Peel

Carl Fritz reported that this standard was sent to EIA for a short 30-day SP ballot on 13 Mar 05.

5. MIL-STD-1344 HARMONIZATION

It was reported by Ralph Antonelli that MIL-STD-1344 was officially cancelled on 22 October 2004 and reflected the recommended EIA-364 test procedures as replacements. It was also reported that SAE AS13441 was officially cancelled in November 2004 and the cancellation notice is revision A. This concludes this project.

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6. OTHER BUSINESS

A. Compliant Pin Contact Document (Max Peel)

It was unanimously moved and approved that the draft submitted Max Peel dated 3/1/2004 be identified in the TS numbering system, and sent out on SP ballot.

B. Current Rating Verification Procedure EIA-364-1000.02 PN-3787 (Frank Ruffino and John Healey)

Frank Ruffino indicated that work is continuing with IBM and verification test results, and should be completed by June 2005. (See attachment No. 10 for the presentation that Frank gave at the October CE-2.0 meeting). He plans to make another presentation of results at the next meeting.

C. Qualification Procedure for Tin Wisker formation on Pb-Free Reflow Soldering. (Frank Ruffino)

Project cancelled since the iNEMI (International Electronics Manufacturing Initiative) document has become the defacto standard.

D. Qualification Procedure for Connector Heat Resistance to Pb-Free Reflow Soldering. (Frank Ruffino)

Project cancelled since the iNEMI document has become the defacto standard.

E. Tin Whiskers Test Procedures (Max Peel)

Project cancelled since the iNEMI document has become the defacto standard.

7. NEW BUSINESS

A. Revision of EIA-364-10C to eliminate test condition L (Hydraulic fluid M2-V Chevron oil ST0145LB0001 or equivalent) since this test fluid is obsolete and was only used on the Concord.

It was unanimously moved and approved that Carl Fritz send the standard out on a SP ballot for the purpose of eliminating test fluid L.

B. EIA-364-06, Contact Resistance (Bill Upstone)

The following comment was received from Bill Upstone: Revise to define distance between measurement points to be 6 inches. Add the following to clause 5.7 “ For crimp contacts mated to each other, dimension X shall be 152.4 millimeters \pm 3.0 millimeters (6 inches \pm 0.12 inches), unless otherwise other wise specified in the referencing document”.

It was unanimously moved and approved to accept the changes and send the standard out on a SP ballot.

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C. EIA-364-105, Altitude, Low Temperature (Bill Upstone)

The following comment was received from Bill Upstone: Both TP-105 and old MIL-STD-1344 indicated that the connectors should be wired in series when applying the specified test voltage. MIL-STD-38999 indicates there shall be no wire splices in the chamber so we bring the wire ends from both the plug and receptacle outside the chamber and connect them in a series circuit. The question is: When testing dielectric withstanding voltage, why do these need to be wired in series? We are not measuring or testing continuity, we are only applying a voltage potential between specified points. A parallel circuit would yield the same result and be much easier to prepare.

The committee sees no problems with the recommendations suggested by Bill Upstone. The committee moved and approved that Bill Upstone obtain a project number and proceed to Letter ballot.

D. Ralph Antonelli presented possible changes to some 364 test procedures to meet the requirements of MIL-PFR-39012. Carl will review the suggestions with Max Peel and Jeff Toran and report at the next meeting. (See Attachment No. 3)

E. Carl Fritz reported that he received a phone call from John Healey on an ionic contamination issue discovered by IBM. He was asked to present the following on behalf of John Healey: The situation encountered by IBM was with high temperature nylon that is not properly cured or just plain dirty. When connectors or sockets are densely packed on printed circuit boards the material can cause line-to-line shorts on the printed circuit board especially due to moisture or humid environments. He said that today some boards are almost fully loaded with DIMM sockets. He indicated that this is not seen on housings made from LPC (Liquid Crystal Polymers). He also indicated that IPC has a specification to address this situation for assemblies. The problem is that something is needed at the component level. Once the boards are stuffed it is too late. I suggested that a test standard be written that covers connector and socket housings and assemblies along the same line as EIA-364-82 dealing with Corrosivity of Plastics.

The committee indicated that it would support such a project and that John Healey move forward in obtaining a project number and preparing a draft standard based on the IPC TM 650 2.3.25 for Ionic contamination of assemblies for components. The project was unanimously approved.

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F. Carl Fritz reported that the following standards are due for reaffirmation as part of the 5-year review cycle, and all listed standards comply with the current format. They should be able to go out as a bulk reaffirmation ballot. The committee unanimously moved and approved this action.

EIA-364 TP	Test	Rev	Date of last issue	5 Year due date	Years past due
2	Air leakage	C	July-99	June-04	1
3	Altitude immersion	B	June-99	May-04	1
9	Durability	C	June-99	May-04	1
13	Mating and unmating forces	B	December-98	November-03	1
14	Ozone exposure	B	April-99	March-04	1
26	Salt spray	B	April-99	March-04	1
28	Vibration	D	July-99	June-04	1
35	Insert retention	B	December-98	November-03	1
38	Cable pull-out	B	July-99	June-04	1
42	Impact	B	April-99	March-04	1
50	Dust (fine sand)	A	July-98	June-03	2
54	Magnetic permeability	A	May-99	April-04	1
95	Full mating and mating stability		April-99	March-04	1
99	Gage location and retention		June-99	May-04	1
100	Marking permeability		April-99	March-04	1
102	Rise time degradation		December-98	November-03	1
103	Propagation delay		February-99	January-04	1

All actions taken by the subcommittee were moved and unanimously approved by the EIA CE-2.0 committee. The meeting adjourned at 5:30 PM on 16 May 2005.

Respectfully,

Carl Fritz, Recording Secretary

Bill Peverill, Chairman CE-2.1