

Attachment No. 2

Minutes of the CE-2.9 Subcommittee on Sockets 17 – 18 October 2005 Memphis, TN

Facilitator Carl Fritz welcomed everyone, and said that the meeting would be conducted following the published agenda. It was reported that former subcommittee chair Harvey Waltersdorf would be unable to continue with the committee and has resigned.

1. 1. The minutes of the 16 – 17 May 2005 meeting in New Orleans, LA was approved. Moved by John Healey and seconded by Ralph Antonelli.

2. REAFFIRMED DOCUMENTS

A. SP-4970: EIA-540DAAA-A: Detail, DIP

Carl Fritz reported that a second letter was sent to EIA to process the EDEC ballot on 6 October 2005.

B. SP-4971: EIA-700A0AB: 68-pin Memory Card Connector

Carl Fritz reported that a second letter was sent to EIA to process the EDEC ballot on 6 October 2005.

3. PINK SHEET BALLOTS

A. SP-4965: Rev. EIA-540B0AE: Detail Land Grid Array (Contech Research is sponsor)

To be superseded by EIA-364-1003, Ball Grid Array (BGA) and Land Grid Array (LGA) Test Sequence for Electrical Connectors and Sockets, when published.

B. SP-4973: EIA-540B0AB: Low Pin Count BGA

To be superseded by EIA-364-1003, Ball Grid Array (BGA) and Land Grid Array (LGA) Test Sequence for Electrical Connectors and Sockets, when published.

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C. SP-4982-1: EIA-5400000A: Generic

Carl Fritz reported that there were 6 approved ballots received, 2 abstentions and the following rejection from Max Peel by the ballot expiration date of 26 September 2005:

- The following rejected ballot was received from Max Peel dated 6 September 2005:

Cancel in its entirety. The socket generic document contains no technical content. It is a boilerplate introduction found in most other product specs and standards.

The committee recognized the concerns expressed by Max Peel. It however felt that to cancel the document at this time, without addressing the future strategy of the documentation system, is premature. The committee determined that future specifications developed shall be stand-alone documents without any reference to Generic, Sectional, or blank detail specifications. Justification for this action is that the Generic, Sectional and Blank detail specifications have no direct value to the Detail Specification. It was moved by Alan Davis and seconded by Ralph Antonelli to reaffirm the specification and send to EIA for EDEC ballot. The motion was unanimously approved.

D. SP-4983: EIA-540BAAA-A: Detail, Mechanically Actuated PGA (Contech Research is the sponsor)

Carl Fritz reported that a letter to cancel the project was sent to EIA on 17 September 2005.

4. DRAFT DOCUMENTS

A. SP-5055: Replacement document for EIA-676 Detail, SFF 1.8 inch (45.7 mm) Disk Drives

It was reported that there was 1 approved ballot and 3 abstentions received. The ballot expiration date is 25 October 2005. It was moved by John Healey and seconded by Alan Davis to send to EIA for EDEC ballot, if no additional comments are received. It was unanimously approved.

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5. FIVE YEAR REVIEW

A. SP-5114 as follows:

- 540C000: Sectional Relay Sockets
- 540CA00: Blank, Relay Sockets
- 540CAAA: Detail, 10A Relay Socket
- 540CAAB: Detail, 5A Relay Socket 1

Carl Fritz reported that there were 2 approved ballots received, 2 abstentions and the following rejection from Max Peel. The ballot expiration date is 26 October 2005.

- The rejection letter from Max Peel containing his justification is included in its entirety at the end of these minutes.

The committee recognized the concerns expressed by Max Peel. It however felt that to cancel the document at this time, without addressing the future strategy of the documentation system, is premature. The committee determined that future specifications developed shall be stand-alone documents without any reference to Generic, Sectional, or blank detail specifications. Justification for this action is that the Generic, Sectional and Blank detail specifications have no direct value to the Detail Specification. It was moved by Alan Davis and seconded by Ralph Antonelli to reaffirm the listed specifications and send to EIA for EDEC ballot, if there are no other comments received by the ballot expiration date. The motion was unanimously approved.

B. SP-5112 as follows:

- EIA-700A0AC: Detail, 88-pin DRAM Connector
- EIA-540A000-A: Sectional, Chip Carrier Sockets
- EIA-540AA00: Blank, Leadless Chip Carrier Sockets
- EIA-540AAAA: Detail, Type A Chip Carrier Sockets
- EIA-540AB00: Blank, PQFP
- EIA-540ABAA: Detail, PQFP
- EIA-540AC00: Blank, PCC
- EIA-540ACAA: Detail, PCC
- EIA-540AD00: Blank, Adaptor QFP to PGA
- EIA-540B000: Sectional, PGA
- EIA-540BA00: Blank, PGA
- EIA-540BAAB: Detail, Non-Mechanical PGA
- EIA-540BAAC: Detail, Flex Carrier PGA
- EIA-540D000-A: Sectional, In-Line Packages
- EIA-540DA00: Blank, DIP (Will be sent out for review)
- EIA-540DAAB: Detail, Flex Carrier DIP
- EIA-540EA00: Blank, Round Sockets
- EIA-540EAAA: Detail, Round Sockets
- EIA-540F000: Sectional, Multi-Package Modules

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Carl Fritz reported that there were 2 approved ballots received, 2 abstentions and the following rejection from Max Peel. The ballot expiration date is 24 October 2005.

- The rejection letter from Max Peel containing his justification is included in its entirety at the end of these minutes.

The committee recognized the concerns expressed by Max Peel. It however felt that to cancel the document at this time, without addressing the future strategy of the document system, is premature. The committee determined that future specifications developed shall be stand-alone documents without any reference to Generic, Sectional, or blank detail specifications. Justification for this action is that the Generic, Sectional and Blank detail specifications have no direct value to the Detail Specification. It was moved by Alan Davis and seconded by Ralph Antonelli to reaffirm the listed specifications and send to EIA for EDEC ballot, if there are no other comments received by the ballot expiration date. The motion was unanimously approved.

C. SP-5056: EIA-674: Detail, SFF 1.8" Disk Drives

Carl Fritz reported that this specification was sent to EIA for EDEC ballot on 10 October 2005.

D. SP-5058: EIA-720: Detail, SFF 2.5" Disk Drives

It was reported that there were 2 approvals and 2 abstentions received and one rejection from Alvin Cox of Seagate on behalf of the SFF committee. The committee reviewed and accepted the comments from Mr. Cox, on behalf of the SFF committee. It was moved by John Healey and seconded by Alan Davis to make the changes and send the specification to EIA for a second SP ballot, if there are no additional comments received by the ballot expiration date of 26 October 2005. The motion was unanimously approved.

- The rejection letter from Alvin Cox containing his requested changes is included in its entirety at the end of these minutes.

E. SP-5059: EIA-677: Detail, SFF Power Connector Pin Dimensions

It was reported that there were 5 approved ballots received and no comments. A letter was sent to EIA for EDEC ballot to reaffirm the specification on 11 October 2005. This action was previously approved.

F. SP-5057: EIA-675: Detail, SFF 1.3" Disk Drives

It was reported that this standard was rescinded in June 2004.

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6. NEW BUSINESS

A. EIA-364-1003, Ball Grid Array (BGA) and Land Grid Array (LGA) Test Sequence for Electrical Connectors and Sockets

Carl Fritz introduced the first draft of the subject standard on behalf of Tom Peel. It was noted that the committee unanimously approved action to obtain a project number and proceed to letter ballot at the May 2005 meeting. Initial questions raised on this standard by John Healey were as follows:

1. Is this document only designed for one piece connector or socket where by the mating half is a processor module?
2. Why are socket design features included in this standard?
3. Try and make this standard look as much like the EIA-364-1000.01 standard from a format perspective.

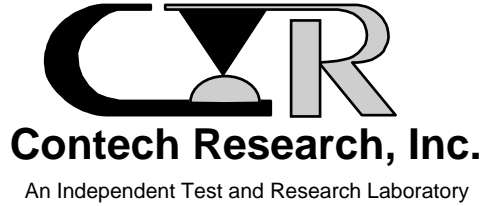
All actions taken by the subcommittee were unanimously moved and approved by the EIA CE-2.0 committee. The meeting adjourned at 4:35 PM on 18 October 2005.

Respectfully,

Carl Fritz, Facilitator CE-2.9

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- The following rejected ballot was received from Max Peel.



67 Mechanic Street, Attleboro, MA 02703
Telephone 508-226-4800 Fax 508-226-6869

Ms. Cecilia Yates
ECA

Re: SP 4982-1, SP5114 and SP5112

Dear Cecilia,

The following are my reasons for my negative ballot for all three (3) SP's. the above SP's are interrelated and deal with sockets only.

1. SP4982-1: Generic Specification for sockets. Cancel in its entirety.
2. SP5114: Relay Sockets:
 - a) 540C000: Sectional Specification -Cancel
 - b) 540CA00: Blank Detail -Cancel
 - c) 540CAAA: Detail- review and modify as required
 - d) 540CAAB: Detail- review and modify as required
3. SP112: Miscellaneous Documents
 - a) 700AOAC: Detail - review and modify as required
 - b) 540A000: Sectional -Cancel
 - c) 540AA00: Blanket Detail -Cancel
 - d) 540AAAA: Detail -review and modify as required
 - e) 540AB00: Blank Detail -Cancel
 - f) 540AC00: Blank Detail -Cancel
 - g) 540AC00: Blank Detail -Cancel
 - h) 540BA00: Blank Detail -Cancel
 - i) 540DA00: Blank Detail -Cancel
 - j) 540EA00: Blank Detail -Cancel
 - k) 540B000: Sectionals -Cancel
 - l) 540D000: Sectionals -Cancel
 - m) 540F000: Sectionals -Cancel
 - n) 540ABAA: Detail, Modify as required
 - o) 540BAAB: Detail, Modify as required
 - p) 540BAAC: Detail, Modify as required
 - q) 540DAAB: Detail, Modify as required
 - r) 540EAAA: Detail, Modify as required

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Reasons:

1. The socket generic document contains no technical content. It is a boiler plate introduction found in most other product specs and standards.
2. The sectionals are somewhat similar in content.

Reasons:


3. Blank detail not only has no technical content it basically has no content worthy of mentioning.
4. The detail documents does have technical detail and should be retained but two things should be done:
 - a) Modified to include those paragraphs from the generic or sectionals that may apply.
 - b) A complete review of the document to update the pertinent sections considering today's technological concerns. These documents have never been reviewed or updated. It, in essence represents the technology of the 70's and 80's. We saw this when PGA's became a hot issue particularly with Intel. They reviewed the document and had requested some changes. EIA at the time refused. Intel then dropped their consideration of the applicable EIA documents and created their own. Intel's document became the defacto international standard.
5. The four tier document was an attempt to be in line with the IEC System. Both systems are cumbersome to work with and generates a lot of frustration from the users point of view as well as many manufacturer.
6. Since the inception of these documents. They are not being used, have never been used and probably will never be used. So why "rubber stamp" documents for the sake of having them and to linger in a library never to have wide usage or any usage for that matter. Of if used, does not represent today's technology.

The purpose of the five (5) year review is to consider if the document should be updated or not. The 5 year

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review is not a bad time frame to do this. The details should go through this type of review to make them all encompassing and stand alone documents, and hopefully make them technically up to date. If there is no desire or interest in this activity, then why have them at all.

Best regards,



Max Peel
Senior Fellow
Contech Research, Inc.

MP:cm
cc: File

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- The following rejected ballot was received from Alvin Cox (Seagate Technologies, LLC on behalf of the SFF Committee 13 October 2005.

Reasons for disapproval:

Seagate Technology, LLC	- Comment No. 1
Type of Comment	- Technical
Reference	- Page No. 4, Clause No. , Line
Suggested Change	- Add: Comments column or A1=9.50 should include the following: A2=A3 = 0.20 mm (0.008")

Rationale for Technical Change

The SFF-8201 specification has been updated to reflect a new tolerance for A1 = 9.5 mm. This change matches what the industry supplies rather than what is currently in the specification. Only the 9.5 mm value of A1 has this violation. Table 1 on page 4 of DRAFT REVISION EIA SP-5058 should be updated to reflect the change as shown below for the 9.5 mm version from the current revision of SFF-8201:

TABLE 7-1 2.5" DISK DRIVE DIMENSIONS

Dimension	Millimeters	Inches	Comments
A 1	19.05	0.750	
A 1	17.00	0.669	
A 1	15.00	0.591	
A 1	12.70	0.500	
A 1	10.50	0.413	
A 1	9.50	0.374	A2=A3=0.20 mm (0.008")
A 1	8.47	0.333	
A 1	7.00	0.276	
A 2	0.00	0.000	
A 3	0.50	0.020	
A 4	69.85	2.750	
A 5	0.25	0.010	
A 6	101.85 *	4.010 *	Obsolete
A 6	100.45 *	3.955 *	New requirement
A10	100.20	3.945	SFF-8212
A11	100.50	3.957	SFF-8223
A12	110.20	4.339	SFF-8222

Reference link:

<ftp://ftp.seagate.com/sff/SFF-8201.PDF>

Reasons for disapproval:

Seagate Technology, LLC	- Comment No. 2
Type of Comment	- Technical
Reference	- Page No. i, ii, 1, 7, 8, and 9, Clause No. 4.3
Suggested Change	- Add: Delete Clause 4.3, Figure 4, Table 2 and their references in the CONTENTS. Also remove the reference to SFF-8221 in Clause 1.3.1

Rationale for Technical Change

SFF-8221 is no longer an active specification. This project was canceled at the request of the originator March 2005. It was cancelled at the originator's request due to lack of industry support. The one manufacturer that did make some models in compliance with this specification has decided to no longer support the configuration on new models. It is not a "standard configuration".

Reference link:

<ftp://ftp.seagate.com/sff/SFF-8221.TXT>