



Assembly & Packaging Japan TC Chapter Meeting Summary and Minutes

Japan Standards Summer 2016 Meetings
Friday, June 10, 2016, 3:00 p.m. – 5:00 p.m. [JST]
SEMI Japan office, Tokyo, Japan

TC Chapter Announcements

Next TC Chapter Meeting

Tuesday, October 18, 2016, 3:00 p.m. – 5:00 p.m.

SEMI Japan office, Tokyo, Japan

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: Kazunori Kato (AiT), Masahiro Tsuruya (iNEMI)

SEMI Staff: Chie Yanagisawa (SEMI Japan)

Attendee: 10 + **SEMI:** 1

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
AIST	Shimamoto	Haruo	Micron Memory Japan	Sonobe	Kaoru
AiT	Kato	Kazunori	Shin-Etsu Polymer	Shinozuka	Nobuhiro
Asahi Glass	Takahashi	Mamoru	Shin-Etsu Polymer	Suzuki	Hideki
DISCO	Masuchi	Sumio	Tokyo Seimitsu	Chiba	Kiyotaka
Hitachi High-Technologies	Yoshino	Eiji			
iNEMI	Tsuruya	Masahiro	SEMI Japan	Yanagisawa	Chie

** alphabetical order by company name*

Table 2 Leadership Changes

<i>Group</i>	<i>Previous Leader</i>	<i>New Leader</i>
Electromagnetic Characterization Study Group	Mikio Kiyono (AET)	The study group was discharged.
3D-IC Study Group	Masahiro Tsuruya (iNEMI) Haruo Shimamoto (AIST)	The study group was discharged.
Japan 450mm Assembly & Test Die Preparation Task Force	Kenichi Watanabe (Lintec) Kiyofumi Tanaka (Shin-Etsu Polymer)	No one was newly replaced by them. . Sumio Masuchi (DISCO) and Akihito Kawai (DISCO) remain.

Table 3 Ballot Results (or move to Section 4, Ballot Review)

Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

Failed ballots and line items were returned to the originating task forces for re-work and re-balloting.

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
None		

Table 4 Authorized Activities (or move to Section 7, New Business)

#	Type	SC/TF/WG	Details
--	SG Discharge	Electromagnetic Characterization Study Group	The study group was discharged.
--	SG Discharge	3D-IC Study Group	The study group was discharged.
5878	SNARF Withdrawal	5 Year Review TF	Line Item Revision to SEMI G20-96: Specification for Lead Finishes for Plastic Packages (Active Devices Only)
5879	SNARF Withdrawal	5 Year Review TF	Line Item Revision to SEMI G21-94: Specification for Plating Integrated Circuit Leadframes
5880	SNARF Withdrawal	5 Year Review TF	Line Item Revision to SEMI G41-87: Specification for Dual Strip SOIC Leadframe
6030	SNARF	5 Year Review TF	Major Revision to SEMI G20-96: Specification for Lead Finishes for Plastic Packages (Active Devices Only) <i>*Some sections were rephrased according to Section 3.2 of Procedure Manual-.</i>
6031	SNARF	5 Year Review TF	Major Revision to SEMI G21-94: Specification for Plating Integrated Circuit Leadframes <i>*Some sections were rephrased to Section 3.2 of Procedure Manual-.</i>
6032	SNARF	5 Year Review TF	Major Revision to SEMI G41-87: Specification for Dual Strip SOIC Leadframe <i>*Some sections were rephrased according to Section 3.2 of Procedure Manual-.</i>
6027	SNARF	5 Year Review TF	Line Item Revision to SEMI G86-0303 (Reapproved 0811): Test Method for Measurement of Chip (Die) Strength by Mean of 3-Point Bending
6029	SNARF	5 Year Review TF	Reapproval of SEMI G88-0211: Specification for Tape Frame for 450 mm Wafer
6028	SNARF	Thin Chip Handling TF	Line Item Revision to SEMI G97-0116: Specification for Adhesive Tray Used for Thin Chip Handling

NOTE 1: SNARFs and TFOFs are available for review on the SEMI Web site at: <http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

Table 5 Authorized Ballots

#	When	SC/TF/WG	Details
6028	Cycle 6-16	Thin Chip Handling TF	Line Item Revision to SEMI G97-0116: Specification for Adhesive Tray Used for Thin Chip Handling
5881	Cycle 6-16	5 Year Review TF	Reapproval of SEMI G83-0912: Specification for Bar Code Marking of Product Packages
6030	Cycle 6-16	5 Year Review TF	Revision to SEMI G20-96: Specification for Lead Finishes for Plastic Packages (Active Devices Only)
6031	Cycle 6-16	5 Year Review TF	Revision to SEMI G21-94: Specification for Plating Integrated Circuit Leadframes
6032	Cycle 6-16	5 Year Review TF	Revision to SEMI G41-87: Specification for Dual Strip SOIC Leadframe
6027	Cycle 6-16	5 Year Review TF	Line Item Revision to SEMI G86-0303 (Reapproved 0811): Test Method for Measurement of Chip (Die) Strength by Mean of 3-Point Bending
6029	Cycle 6-16	5 Year Review TF	Reapproval of SEMI G88-0211: Specification for Tape Frame for 450 mm Wafer

Table 6 New Action Items

Item #	Assigned to	Details
20160610-01	SEMI Japan staff	To distribute the list of Standards published in 2011 to all the members who attended the TC Chapter meetings held for the last 12 months and also to Noboru Hayasaka (TOWA CORPORATION)

Table 6 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20160610-02	Kazunori Kato (AiT) and Masahiro Tsuruya (iNEMI)	To decide who review which document
20160610-03	The members requested	To reply if they receive the requests to review the documents

Table 7 Previous Meeting Actions Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20160205-#01	Kazunori Kato (AiT)	To contact to Mikio Kiyono (AET) for the activity status of Electromagnetic Characterization Study Group. => CLOSE
20160205-#02	Masahiro Tsuruya (iNEMI)	To send the ballot drafts of revision to SEMI G20, SEMI G21 and SEMI G41 to Kazunori Kato in order that Kazunori Kato would check them with SEMI Staff if they are OK and then send to Shinko to ask for work for revision to those Standards. => CLOSE
20160205-#03	Masahiro Tsuruya (iNEMI)	To check if SEMI G31, SEMI G45, SEMI G49 are OK, and then ask for document review to Hitachi Chemicals. => CLOSE

1 Welcome, Reminders, and Introductions

Masahiro Tsuruya (iNEMI) called the meeting to order at 3:00 p.m. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01, Required_Elements_Reg_20150327_E+J

2 Review of Previous Meeting Minutes

The committee reviewed the minutes of the previous meeting.

Motion:	To approve the minutes of the previous meeting as written.
By / 2nd:	Kazunori Kato (AiT) / Mamoru Takahashi (Asahi Glass)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion passed.

3 Liaison Reports

None

3.1 SEMI Staff Report

Chie Yanagisawa (SEMI Japan) gave the SEMI Staff Report. Of note:

- Global SEMI Events
- Global Standards Meetings Schedule
- Ballot Critical Dates
- Publication Update
- A&R Ballot Review
- SEMI Standards Publications
- PPT Template Update
- JRSC Topics



- SEMI Standards Articles in SEMI Japan e-mail newsletter
- Contact Information

Attachment: 02, SEMI Staff Report 20160608_v1.1

4 Ballot Review

None

5 Subcommittee & Task Force Reports

5.1 GCS

Kazunori Kato (AiT) reported that there was no update.

5.2 Electromagnetic Characterization Study Group

No report was made at this TC Chapter meeting. The discharge of this Study Group was proposed at the “Old Business” section of this meeting.

5.3 Japan 450mm Assembly & Test Die Preparation Task Force

Sumio Masuchi (DISCO) reported that there was no update. He mentioned that draft SNARF for Specification of Backend Die Traceability was proposed by the I&C Taiwan TC Chapter, so the attendees reviewed it at the Japan TC Chapter meeting.

Sumio Masuchi also mentioned that some of the co-leaders were inactive for a while and proposed as following.

Motion:	To discharge Kenichi Watanabe (Lintec) / Kiyofumi Tanaka (Shin-Etsu Polymer) from the co-leaders of Japan 450mm Assembly & Test Die Preparation Task Force
By / 2nd:	Sumio Masuchi (DISCO) / Kiyotaka Chiba (Tokyo Seimitsu)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

5.4 Thin Chip Handling Task Force

Haruo Shimamoto (AIST) reported the following two items.

- The TF plans to propose a SNARF for Line Item Revision to G97-0116: SPECIFICATION FOR ADHESIVE TRAY USED FOR THIN CHIP HANDLING and the ballot submission at the “New Business” section of this meeting.
- The TF discussed Doc.5836, “New Standard: Test Method for Adhesive Strength for Adhesive Tray Used for Thin Chip Handling”.

5.5 Packaging 5 Year Review Task Force

The details were reported at the “Old Business” section of this meeting.

5.6 3D-IC Study Group

The discharge of the Study Group was proposed at the “Old Business” section of this meeting.

5.7 Fiducial Mark Interoperability Task Force

Sumio Masuchi (DISCO) reported the task force completed the Revision to SEMI T7-0415.

Attachment: 03, 20160224FMI-TF-Report_r1



6 Old Business

6.1 Proposal of Discharge of Electromagnetic Characterization Study Group

Since no report was submitted more than a year, it was suggested for this Study Group should be discharged. The proposal was made as following.

Motion:	To approve the discharge of Electromagnetic Characterization Study Group
By / 2nd:	Kazunori Kato (AiT) / Kaoru Sonobe (Micron Japan)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion passed.

6.2 Proposal of Discharge of 3D-IC Study Group

There has been no activity as 3D-IC Study Group due to the establishment of the 3DS-IC Japan TC Chapter in 2015. So, the proposal was made as following.

Motion:	To approve the discharge of 3D-IC Study Group
By / 2nd:	Masahiro Tsuruya (iNEMI) / Haruo Shimamoto (AIST)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

6.3 5 Year Review Check

6.3.1 Discussion on standardizing the unit and the criteria for lead-free and halogen-free descriptions on revising the published Standards

Kazunori Kato (AiT) mentioned that US unit was used in the old documents. He also added that the TC Chapter needs to discuss on standardizing description for lead-free and halogen-free related documents at the next TC Chapter meeting.

6.3.2 SEMI G20, SEMI G21 and SEMI G41 (Action Item: 20160205-#02)

6.3.2.1 Proposal of Withdrawal of SNARF 5878 (Line Item Revision to SEMI G20), SNARF 5879 (Line Item Revision to SEMI G21) and SNARF 5880 (Line Item Revision to SEMI G41)

These three SNARFs are for Line Item Revisions respectively to those Standards, however, through the preparation for the revisions, it is found that these Standards are not followed the documentation requirement per the Procedure Manual. So, the following proposal to withdraw these SNARFs was made, and then new SNARFs for Major Revisions to be proposed later at this meeting.

Motion:	To approve the withdrawal of SNARF 5878, SNARF 5879 and SNARF 5880
By / 2nd:	Kazunori Kato (AiT) / Mamoru Takahashi (Asahi Glass)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

6.3.2.2 New Proposal of Revision to SEMI G20, Revision to SEMI G21 and Revision to SEMI G41

As mentioned above, the Major Revisions to these Standards should be made. The drafts of new SNARFs for Revisions to those Standards had been provided for two weeks review in advance. The SNARFs and the ballot submissions are proposed as following.

- Revision to SEMI G20-96: Specification for Lead Finishes for Plastic Packages (Active Devices Only)

Motion:	To approve the SNARF for Revision to SEMI G20-96: Specification for Lead Finishes for Plastic Packages (Active Devices Only)
By / 2nd:	Kazunori Kato (AiT) / Mamoru Takahashi (Asahi Glass)



Discussion:	None
Vote:	8 in favor and 0 opposed. 1 abstains. Motion passed.

Motion:	To approve the submission of the ballot (Revision to SEMI G20-96: Specification for Lead Finishes for Plastic Packages (Active Devices Only)) for Cycle 6
By / 2nd:	Kazunori Kato (AiT) / Haruo Shimamoto (AIST)
Discussion:	None
Vote:	9 in favor and 0 opposed. 1 abstains. Motion passed.

- Revision to SEMI G21-94: Specification for Plating Integrated Circuit Leadframes

Motion:	To approve the SNARF for Revision to SEMI G21-94: Specification for Plating Integrated Circuit Leadframes
By / 2nd:	Kazunori Kato (AiT) / Mamoru Takahashi (Asahi Glass)
Discussion:	None
Vote:	8 in favor and 0 opposed. 1 abstains. Motion passed.

Motion:	To approve the submission of the ballot (Revision to SEMI G21-94: Specification for Plating Integrated Circuit Leadframes) for Cycle 6
By / 2nd:	Kazunori Kato (AiT) / Haruo Shimamoto (AIST)
Discussion:	None
Vote:	9 in favor and 0 opposed. 1 abstains. Motion passed.

- Revision to SEMI G41-87: Specification for Dual Strip SOIC Leadframe

Motion:	To approve the SNARF for Revision to SEMI G41-87: Specification for Dual Strip SOIC Leadframe
By / 2nd:	Kazunori Kato (AiT) / Mamoru Takahashi (Asahi Glass)
Discussion:	None
Vote:	8 in favor and 0 opposed. 1 abstains. Motion passed.

Motion:	To approve the submission of the ballot (Revision to SEMI G41-87: Specification for Dual Strip SOIC Leadframe) for Cycle 6
By / 2nd:	Kazunori Kato (AiT) / Haruo Shimamoto (AIST)
Discussion:	None
Vote:	9 in favor and 0 opposed. 1 abstains. Motion passed.

6.3.3 SEMI G31, SEMI G45 and SEMI G49 (Action Item: 20160205-#03)

The following three Standards do not require the major changes for technical contents. However, they shall be revised as major revision in order to meet the documentation requirement per Procedure Manual. The drafts of SNARFs will be prepared and distributed for two weeks review, and then will be proposed at the next Japan TC Chapter meeting.

- SEMI G31-0997: Test Method for Determining the Abrasive Characteristics of Molding Compounds
- SEMI G45-93: Recommended Practice for Flash Characteristics of Thermosetting Molding Compounds
- SEMI G49-93: Specification for Plastic Molding Preforms



6.3.4 Others

6.3.4.1 SEMI G44-94: Specification for Lead Finishes for Glass to Metal Seal Ceramic Packages (Active Devices Only)

Draft SNARF for Revision to SEMI G44-94 was distributed to the global TC members for two weeks review. However, the TC Chapter agreed to get this Standard inactive at this meeting as following.

Motion:	To approve getting SEMI G44-94 inactive
By / 2nd:	Masahiro Tsuruya (iNEMI) / Kaoru Sonobe (Micron Japan)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

6.3.4.2 SEMI G76-0299 (Reapproved 0706): Specification for Polyimide-Based Adhesive Tape Used in Tape Carrier Packages (TCP)

SEMI G76-0299 (Reapproved 0706) was further discussed through the emails and Masahiro Tsuruya (iNEMI) proposed it for reapproval. The draft SNARF was prepared by SEMI Staff and GCS voting for approval was requested later.

6.3.5 Review of Documents published in 2011

6.3.5.1 SEMI G86-0303 (Reapproved 0811): Test Method for Measurement of Chip (Die) Strength by Mean of 3-Point Bending

The following proposals for Line Item Revision to SEMI G86 were made.

Motion:	To approve the SNARF for Line Item Revision to SEMI G86-0303 (Reapproved 0811): Test Method for Measurement of Chip (Die) Strength by Mean of 3-Point Bending
By / 2nd:	Haruo Shimamoto (AIST) / Kazunori Kato (AiT)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

Motion:	To approve the submission of ballot (Line Item Revision to SEMI G86-0303 (Reapproved 0811): Test Method for Measurement of Chip (Die) Strength by Mean of 3-Point Bending) for Cycle 6
By / 2nd:	Haruo Shimamoto (AIST) / Kazunori Kato (AiT)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

6.3.5.2 SEMI G88-0211: Specification for Tape Frame for 450 mm Wafer

The following proposals for Reapproval of SEMI G88 were made.

Motion:	To approve the SNARF for Reapproval of SEMI G88-0211: Specification for Tape Frame for 450 mm Wafer
By / 2nd:	Sumio Masuchi (DISCO) / Kiyotaka Chiba (Tokyo Seimitsu)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

Motion:	To approve the submission of ballot (Reapproval of SEMI G88-0211: Specification for Tape Frame for 450 mm Wafer) for Cycle 6
By / 2nd:	Sumio Masuchi (DISCO) / Kiyotaka Chiba (Tokyo Seimitsu)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.



6.3.5.3 The other documents published in 2011

There are many documents published in 2011 other than SEMI G86 and SEMI G88 and they should be reviewed for five years. The list for the applicable documents will be distributed to the members in advance for the discussion at the next TC Chapter meeting.

Action Item: 20160610-01, SEMI Staff to distribute the list of Standards published in 2011 to all the members who attended the TC Chapter meetings held for the last 12 months and also to Noboru Hayasaka (TOWA CORPORATION)

Action Item: 20160610-02, Kazunori Kato (AiT) and Masahiro Tsuriya (iNEMI) to decide who review which document

Action Item: 20160610-03, the members requested to reply if they receive the requests to review the documents

6.4 SNARF Project Period Check

Currently, there are two SNARFs by the Assembly & Packaging Japan TC Chapter. The TC Chapter recognized the approval date as following.

- Doc. 5881: Reapproval of SEMI G83-0912: Specification for Bar Code Marking of Product Packages was initially approved on May 11, 2015.
- Doc. 5836: New Standard: Test Method for Adhesive Strength for Adhesive Tray Used for Thin Chip Handling was initially approved on January 20, 2015.

So, there was no SNARF that three year passed since its initial approval.

7 New Business

7.1 SEMI G97-0116: Specification for Adhesive Tray Used for Thin Chip Handling

The following proposals for Line Item Revision to SEMI G97 were made.

Motion:	To approve the SNARF for Line Item Revision to SEMI G97-0116: Specification for Adhesive Tray Used for Thin Chip Handling
By / 2nd:	Hideki Suzuki (Shin-Etsu Polymer) / Haruo Shimamoto (AIST)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

Motion:	To approve the submission of the ballot (Line Item Revision to SEMI G97-0116: Specification for Adhesive Tray Used for Thin Chip Handling) for Cycle 6
By / 2nd:	Hideki Suzuki (Shin-Etsu Polymer) / Haruo Shimamoto (AIST)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

7.2 Doc. 5881: Reapproval of SEMI G83-0912: Specification for Bar Code Marking of Product Packages

The following Proposal for ballot submission was made.

Motion:	To approve the submission of the ballot (#5881: Reapproval of SEMI G83-0912) for Cycle 6
By / 2nd:	Kazunori Kato (AiT) / Nobuhiro Shinozuka (Shin-Etsu Polymer)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion passed.

7.3 Discussion of the possibility of standardization for power devices

This topic will be discussed at the next meeting.



8 Action Item Review

8.1 Open Action Items

There was no open action item.

8.2 New Action Items

Chie Yanagisawa (SEMI Japan) reviewed the new action items. They are listed on the Table 6 above.

9 Next Meeting and Adjournment

The next meeting of the Assembly & Packaging Japan TC Chapter is scheduled for Tuesday, October 4, 2016, 3:30 p.m. – 5:30 p.m. at Japan Standards Fall Meetings at SEMI Japan office in Tokyo, Japan.

*Later date, the next meeting was rescheduled for Tuesday, October 18, 2016, 3:30 p.m. – 5:30 p.m. at SEMI Japan office in Tokyo, Japan.



Respectfully submitted by:
Chie Yanagisawa
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Minutes tentatively approved by:

Kazunori Kato (AiT), Co-chair	September 28, 2016
Masahiro Tsuruya (iNEMI), Co-chair	September 28, 2016

Table 8 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
01,Required_Elements_Reg_20150327_E+J	
02, SEMI Staff Report 20160608_v1.1	
03, 20160224FMI-TF-Report_r1	

#1 Due to file size and delivery issues, attachments must be downloaded separately. A .zip file containing all attachments for these minutes is available at www.semi.org. For additional information or to obtain individual attachments, please contact [SEMI Staff Name] at the contact information above.