



Assembly and Packaging Japan TC Chapter

Meeting Summary and Minutes (Draft)

Japan Standards Fall 2016 Meetings

Tuesday, October 18, 2016, 15:00–17:30

SEMI Japan office, Tokyo, Japan

TC Chapter Announcements

Next TC Chapter Meeting

Monday, March 13, 2017, 15:00–17:00

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)

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

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None		

Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
None	

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
6031	Revision to SEMI G21-94: SPECIFICATION FOR PLATING INTEGRATED CIRCUIT LEADFRAMES	Passed as balloted Superclean
6032	Revision to SEMI G41-87: SPECIFICATION FOR DUAL STRIP SOIC LEADFRAME	Passed as balloted Superclean
6027	Line Item Revision to SEMI G86-0303 (Reapproved 0811): TEST METHOD FOR MEASUREMENT OF CHIP (DIE) STRENGTH BY MEAN OF 3-POINT BENDING	

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
Line Item 1	Add SEMI G96 to § 3 as a referenced Standard	Passed as balloted Superclean
Line Item 2	Add a note to ¶ 8.2 in order to clarify the conditions of the procedure	Passed as balloted Superclean
6029	Reapproval of SEMI G88-0211: SPECIFICATION FOR TAPE FRAME FOR 450 mm WAFER	Passed as balloted
6028	Line Item Revision to SEMI G97-0116: SPECIFICATION FOR ADHESIVE TRAY USED FOR THIN CHIP HANDLING	
Line Item 1	Modify the Figure 3, Figure 9 and Table 2 in order to clarify the original drawings	Passed as balloted Superclean

Note 1: **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

Note 2: **Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 5 Activities Approved by the GCS prior to the Originating TC Chapter meeting

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
6063	SNARF	Packaging 5 Year Review Task Force	Reapproval of SEMI G76-0299 (Reapproved 0706): SPECIFICATION FOR POLYIMIDE – BASED ADHESIVE TAPE USED IN TAPE CARRIER PACKAGES (TCP) *Although it was approved by the GCS, the TC Chapter agrees to get this Standard inactive at this meeting.

Table 6 Authorized Activities

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

<i>#</i>	<i>SC/TF/WG</i>	<i>Details</i>
6093	5 Year Review TF	Revision to SEMI G31-0997: TEST METHOD FOR DETERMINING THE ABRASIVE CHARACTERISTICS OF MOLDING COMPOUNDS
6094	5 Year Review TF	Revision to SEMI G45-93: RECOMMENDED PRACTICE FOR FLASH CHARACTERISTICS OF THERMOSETTING MOLDING COMPOUNDS, with title change to PRACTICE FOR FLASH CHARACTERISTICS OF THERMOSETTING MOLDING COMPOUNDS
6095	5 Year Review TF	Revision to SEMI G49-93: SPECIFICATION FOR PLASTIC MOLDING PREFORMS

Note 1: SNARFs and TFOFs are available for review on the SEMI Web site at:

<http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

Table 7 Authorized Ballots

<i>#</i>	<i>When</i>	<i>TF</i>	<i>Details</i>
6093	Cycle 1-2017	5 Year Review TF	Revision to SEMI G31-0997: TEST METHOD FOR DETERMINING THE ABRASIVE CHARACTERISTICS OF MOLDING COMPOUNDS
6094	Cycle 1-2017	5 Year Review TF	Revision to SEMI G45-93: RECOMMENDED PRACTICE FOR FLASH CHARACTERISTICS OF THERMOSETTING MOLDING COMPOUNDS, with title change to PRACTICE FOR FLASH CHARACTERISTICS OF THERMOSETTING MOLDING COMPOUNDS
6095	Cycle 1-2017	5 Year Review TF	Revision to SEMI G49-93: SPECIFICATION FOR PLASTIC MOLDING PREFORMS

Table 8 SNARF(s) Granted a One-Year Extension

#	TF	Title	Expiration Date
None			

Table 9 SNARF(s) Abolished

#	TF	Title
None		

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
SEMI G76-0299 (Reapproved 0706)	SPECIFICATION FOR POLYIMIDE – BASED ADHESIVE TAPE USED IN TAPE CARRIER PACKAGES (TCP)

Table 11 New Action Items

Item #	Assigned to	Details
20161018-01	Sumio Masuchi (DISCO)	To ask the members concerned for comments and to have a conclusion of the task force, whether or not it does not have further activity.
20161018-02	Kazunori Kato (AiT)	To ask SPI TF for comments to standardize the criteria for lead-free and halogen-free descriptions on revising the published Standards
20161018-03	The members on the list, Masahiro Tsuruya (iNEMI), Kazunori Kato (AiT) and Noboru Hayasaka (TOWA)	(1) To ask proper parties for reviewing each document, to be revised, reapproved, withdrawn or inactivated and (2) to get reply from them by the end of 2016.

Table 12 Previous Meeting 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) => CLOSE
20160610-02	Kazunori Kato (AiT) and Masahiro Tsuruya (iNEMI)	To decide who review which document => CLOSE
20160610-03	The members requested	To reply if they receive the requests to review the documents => CLOSE

1 Welcome, Reminders, and Introductions

Masahiro Tsuruya (iNEMI) called the meeting to order at 15:00. 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 TC Chapter reviewed the minutes of the previous meeting.

Motion: To approve the minutes of the previous meeting as written.

By / 2nd: Kazunori Kato (AiT) / Kaoru Sonobe (Micron Japan)

Discussion: None

Vote: 7 in favor and 0 opposed. **Motion passed.**

3 Liaison Reports

There is no other TC Chapter.

3.1 SEMI Staff Report

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

- SEMI Global 2016 Calendar of Events
- 2016 SEMI Standards Excellence Award
- Global Standards Meeting Schedule
- 2016 Critical Dates for SEMI Standards Ballots
- A&R Ballot Review
- SEMI Standards Publications
- JRSC Topics
- Standards articles of SEMI Japan mail magazine
- Staff update

Attachment: 02_SEMI Staff Report 20161014_v1.3

4 Ballot Review

NOTE 1: TC Chapter adjudication on ballots reviewed is detailed in the Audits & Review (A&R) Subcommittee Forms for procedural review. The A&R forms are available as attachments to these minutes. The attachment number for each balloted document is provided under each ballot review section below.

4.1 Document #6031, Revision to SEMI G21-94: SPECIFICATION FOR PLATING INTEGRATED CIRCUIT LEADFRAMES

Passed as balloted, Superclean

Attachment: 03_#6031_LetterBallotReview_G21

4.2 Document #6032, Revision to SEMI G41-87: SPECIFICATION FOR DUAL STRIP SOIC LEADFRAME

Passed as balloted, Superclean

Attachment: 04_#6032_LetterBallotReview_G41

4.3 Document #6027, Line Item Revision to SEMI G86-0303 (Reapproved 0811): TEST METHOD FOR MEASUREMENT OF CHIP (DIE) STRENGTH BY MEAN OF 3-POINT BENDING

4.3.1 Line Item 1: Add SEMI G96 to § 3 as a referenced Standard

Passed as balloted, Superclean

4.3.2 Line Item 2: Add a note to ¶ 8.2 in order to clarify the conditions of the procedure

Passed as balloted, Superclean

Attachment: 05_#6027_LineItemLetterBallotReview_G86

4.4 Document #6029, Reapproval of SEMI G88-0211: SPECIFICATION FOR TAPE FRAME FOR 450 mm WAFER

Passed as balloted

Attachment: 06_#6029_LetterBallotReview_G88

4.5 Document #6028, Line Item Revision to SEMI G97-0116: SPECIFICATION FOR ADHESIVE TRAY USED FOR THIN CHIP HANDLING

4.5.1 Line Item 1: Modify the Figure 3, Figure 9 and Table 2 in order to clarify the original drawings

Passed as balloted, Superclean

Attachment: 07_#6028_LineItemLetterBallotReview_G97

5 Subcommittee and Task Force Reports

5.1 GCS

Chie Yanagisawa (SEMI Japan) reported for the GCS as following.

- SNARF (Doc. 6063) for Reapproval of SEMI G76-0299 (Reapproved 0706) “SPECIFICATION FOR POLYIMIDE-BASED ADHESIVE TAPE USED IN TAPE CARRIER PACKAGES (TCP)” and the ballot submission for Cycle 7-2016 were approved by the GCS on July 28, 2016. However, getting SEMI G76 inactive will be proposed at the Old Business section of this TC Chapter meeting.

5.2 Thin Chip Handling Task Force

Shinozuka Nobuhiro (Shin-Etsu Polymer) reported for the Thin Chip Handling Task Force as following.

- #6028, Line Item Revision to SEMI G97-0116: SPECIFICATION FOR ADHESIVE TRAY USED FOR THIN CHIP HANDLING passed as balloted with superclean at the Ballot Review of this TC Chapter meeting.
- The task force is working on #5836, New Standard: Test Method for Adhesive Strength for Adhesive Tray Used for Thin Chip Handling.

5.3 Packaging 5 Year Review Task Force

Kazunori Kato (AiT), the co-leader, reported for the Packaging 5 Year Review Task Force as following.

- #6031, Revision to SEMI G21-94: SPECIFICATION FOR PLATING INTEGRATED CIRCUIT LEADFRAMES passed as balloted with superclean at the Ballot Review of this TC Chapter meeting.
- #6032, Revision to SEMI G41-87: SPECIFICATION FOR DUAL STRIP SOIC LEADFRAME passed as balloted with superclean at the Ballot Review of this TC Chapter meeting.
- The other Standards to be reviewed will be discussed at the Old Business/New Business sections of this TC Chapter meeting.

5.4 Fiducial Mark Interoperability Task Force

Sumio Masuchi (DISCO), the co-leader, reported for the Fiducial Mark Interoperability Task Force as attached. Of note:

- There has been no task force meeting since November 18, 2015, discussing the ballot result of #5890 (Revision to SEMI T7), which passed Traceability Japan TC Chapter in December 2015 and was published as SEMI T7-0516.
- Assembly and Packaging: Discussing backend alignment issues with introducing fiducial mark wafer.
- TF leaders to start discussion about disbanding this TF if the TF doesn't have further activity.

Action Item: 20161018-01, Sumio Masuchi (DISCO) to ask the members concerned for comments and to have a conclusion of the task force, whether or not it does not have further activity.

Masahiro Tsuruya (iNEMI) proposed that the Assembly & Packaging TC Chapter will make a conclusion for the task force disbandment at the next Assembly & Packaging TC Chapter meeting on March 13, 2017 after the task force reports the conclusion.

Attachment: 08_20161118FMI-TF-Report_r1

5.5 450 mm Assembly & Test Die Preparation (ATDP) Task Force

Sumio Masuchi (DISCO), the co-leader, reported for the 450 mm Assembly & Test Die Preparation (ATDP) Task Force that there is no update.

6 Old Business

6.1 5 Year Review Check

6.1.1 To standardize the unit on revising the published Standards

Chie Yanagisawa (SEMI Japan) showed that SEMI S2-0715a has the following description for unit in the document.

“NOTE 17: The official values in this guideline are expressed in The International System of Units (SI). Values that:

- are expressed in Inch-Pound (also known as ‘US Customary’ or ‘English’) units,*
- are enclosed in parentheses,*
- directly follow values expressed in SI units, and*
- are not official, are provided for reference only, and might not be exact conversions of the SI values.”*

Masahiro Tsuruya (iNEMI) stated that the TC Chapter adds this note to Assembly & Packaging documents, so that unit description should be standardized.

6.1.2 To standardize the criteria for lead-free and halogen-free descriptions on revising the published Standards

Kazunori Kato (AiT) suggested that he will ask SPI TF for comments to standardize the criteria for lead-free and halogen-free descriptions on revising the published Standards before discussion at the TC Chapter meeting.

Action Item: 20161018-02, Kazunori Kato (AiT) to ask SPI TF for comments to standardize the criteria for lead-free and halogen-free descriptions on revising the published Standards

6.1.3 Proposal of inactivating SEMI G76

Masahiro Tsuruya (iNEMI) addressed this topic as following.

Motion:	To approve getting SEMI G76 inactive.
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

6.1.4 Review of Documents published in 2011

The TC Chapter looked over the documents list published in 2011 as attached and considered to assign which document to whom.

- Haruo Shimamoto (AIST) gave a message to Chie Yanagisawa (SEMI Japan) in advance that he would work on SEMI G63, SEMI G64 and SEMI G69.
- The 16 documents on the list are not assigned to any party for review at this meeting.
 - The members on the list will ask proper parties for reviewing each document to be revised, reapproved, withdrawn or inactivated.

Action Item: 20161018-03, The members on the list, Masahiro Tsuruya (iNEMI), Kazunori Kato (AiT) and Noboru Hayasaka (TOWA), (1) to ask proper parties for reviewing each document, to be revised, reapproved, withdrawn or inactivated and (2) to get reply from them by the end of 2016.

- For all cases except for inactivating those documents, SNARFs and ballots to be drafted during January and February in 2017 and SNARFs and ballots submission to be proposed at the next TC Chapter meeting on March, 2017.

7 New Business

7.1 Proposal of New SNARFs and Ballot Submission

7.1.1 SEMI G31-0997: Test Method for Determining the Abrasive Characteristics of Molding Compounds

Masahiro Tsuruya (iNEMI) addressed the committee on this topic.

Motion:	To approve the SNARF for Revision to SEMI G31-0997
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

Motion:	To approve the submission of the ballot #6093 (Revision to SEMI G31-0997) for Cycle 1-2017
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

7.1.2 SEMI G45-93: Recommended Practice for Flash Characteristics of Thermosetting Molding Compounds

Masahiro Tsuruya (iNEMI) addressed the committee on this topic.

Motion:	To approve the SNARF for Revision to SEMI G45-93
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

Motion:	To approve the submission of the ballot #6094 (Revision to SEMI G45-93) for Cycle 1-2017
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

7.1.3 SEMI G49-93: Specification for Plastic Molding Preforms

Masahiro Tsuruya (iNEMI) addressed the committee on this topic.

Motion:	To approve the SNARF for Revision to SEMI G49-93
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

Motion:	To approve the submission of the ballot #6095 (Revision to SEMI G49-93) for Cycle 1-2017
By / 2nd:	Masahiro Tsuruya (iNEMI) / Eiji Yoshino (Hitachi High-Technologies)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

8 Next Meeting and Adjournment

The next meeting is scheduled for Monday, March 13, 2017 at SEMI Japan office, Tokyo. See <http://www.semi.org/en/events> for the current list of meeting schedules.

Having no further business, a motion was made to adjourn. Adjournment was at 17:30.

Respectfully submitted by:

Chie Yanagisawa

Manager

SEMI Japan

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Email: cyanagisawa@semi.org

Minutes tentatively approved by:

Kazunori Kato (AiT), Co-chair	February 19, 2017
Masahiro Tsuruya (iNEMI), Co-chair	March 1, 2017

Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
01_Required_Elements_Reg_20150327_E+J	05_#6027_LineItemLetterBallotReview_G86
02_SEMI Staff Report 20161014_v1.3	06_#6029_LetterBallotReview_G88
03_#6031_LetterBallotReview_G21	07_#6028_LineItemLetterBallotReview_G97
04_#6032_LetterBallotReview_G41	08_20161118FMI-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.