



Packaging Japan TC Chapter Meeting Summary and Minutes

SEMI Japan Standards Spring 2014 Meetings Thursday, September 29, 2014, 15:00-17:00 SEMI Japan, Tokyo, Japan

Next Committee Meeting

SEMI Japan Standards Summer 2014 Meetings Tuesday, January 20, 2015, 15:00-17:00 SEMI Japan, Tokyo, Japan

Table 1 Meeting Attendees

Co-Chairs: Kazunori Kato (AiT), Yutaka Koma (Consultant), Masahiro Tsuriya (iNEMI)

SEMI Staff: Naoko Tejima (SEMI Japan)

Company	Last	First	Company	Last	First
Tokyo Seimitsu	Chiba	Kiyotaka	Shin-Etsu Polymer	Ohde	Shoko
AiT	Kato	Kazunori	AIST	Shimamoto	Haruo
AET	Kiyono	Mikio	Shin-Etsu Polymer	Shinozuka	Nobuhiro
Shin-Etsu Polymer	Maekawa	Mitsunori	Micron Memory Japan	Sonobe	Kaoru
Hitachi Kokusai Electronics	Matsuda	Mitsuhiro	iNEMI	Tsuriya	Masahiro
Canon Anelva	Matsuki	Nobuo	Miraial	Umeda	Toshiya
Disco	Masuchi	Sumio	SEMI Japan	Tejima	Naoko
Consultant	Nakamura	Kazuhiko			

^{*} alphabetical order by last name

Table 2 Leadership Changes

None.

Table 3 Ballot Results

Passed ballots and line items will be forwarded 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.

Document #	Document Title	Committee Action
5753	Reapproval of SEMI G74-0699 (Reapproved 0706) - Specification for Tape Frame for 300 mm Wafers	Passed as balloted
5754	Reapproval of SEMI G77-0699 (Reapproved 0706) - Specification for Frame Cassette for 300 mm Wafers	Passed as balloted
5755	Reapproval of SEMI G81-0307 Specification for Map Data Items	Passed as balloted
5756	Reapproval of SEMI G81.1-0307 - Specification of Grand Concept of Map Data for Characteristics of Dice on Substrate	Passed as balloted
5757	Reapproval of SEMI G87-1108 Specification for Plastic Tape Frame for 300 mm Wafer	Passed as balloted
G92	Specification for Tape Frame Cassette for 450 mm Wafer	Passed





Table 4 Authorized Ballots

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#	When	SC/TF/WG	Details
5780	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75-0698 (Reapproved 0706) Standard Test Method of the Properties of Leadframe Tape
5781	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.1-0698 (Reapproved 0706)Test Method for Measurement of Ionic Impurities in Leadframe Tape
5782	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.2-0698 (Reapproved 0706)Test Method for Measurment of Adhesive Strength of Leadframe Tape
5783	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.3-0698 (Reapproved 0706) Test Method for Measurment of The Peel Strength of Protective Film on Leadframe Tape
5784	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.4-0698 (Reapproved 0706) Test Method for Measurment of Water Absorption of Leadframe Tape
5785	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.5-0698 (Reapproved 0706) Test Method for Measurment of Weight Loss of Leadframe Tape
5786	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.6-0698 (Reapproved 0706) Test Method for Measurment of the Shrinkage Factor of Leadframe Tape
5787	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.7-0698 (Reapproved 0706) Test Method for Measurment of Thermal Decomposition Temperature of Leadframe Tape and Aehesive
5788	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.8-0698 (Reapproved 0706) Test Method for Measurment of the Coefficient of Thermal Expansion and Glass Transition Temperature of Leadframe Tape
5789	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.9-0698 (Reapproved 0706) Test Method for Measurment of Tensile Strength
5790	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.10-0698 (Reapproved 0706) Test Method for Measurment of Volume and Surface Resistivity of the Leadframe Tape
5791	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.11-0698 (Reapproved 0706) Test Method for Measurment of the Dielectric Constant and Dissipation Factor of the Leadframe Tape
5792	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.12-0698 (Reapproved 0706) Test Method for Measurment of Breakdown Strength of Leadframe Tape
5793	C7-14	Packaging 5 Year Review Task Force	Reapproval of G75.13-0698 (Reapproved 0706) Test Method for Measurment of the Leakage Current in Leadframe Tape





Table 5 Authorized Activities

#	Туре	SC/TF/WG	Details
5780		Packaging 5 Year Review Task Force	Reapproval of G75-0698 (Reapproved 0706) Standard Test Method of the Properties of Leadframe Tape
5781	SNARF	Packaging 5 Year Review Task Force	Reapproval of G75.1-0698 (Reapproved 0706)Test Method for Measurement of Ionic Impurities in Leadframe Tape
5782		Packaging 5 Year Review Task Force	Reapproval of G75.2-0698 (Reapproved 0706)Test Method for Measurment of Adhesive Strength of Leadframe Tape
5783		Packaging 5 Year Review Task Force	Reapproval of G75.3-0698 (Reapproved 0706) Test Method for Measurment of The Peel Strength of Protective Film on Leadframe Tape
5784		Packaging 5 Year Review Task Force	Reapproval of G75.4-0698 (Reapproved 0706) Test Method for Measurment of Water Absorption of Leadframe Tape
5785		Packaging 5 Year Review Task Force	Reapproval of G75.5-0698 (Reapproved 0706) Test Method for Measurment of Weight Loss of Leadframe Tape
5786		Packaging 5 Year Review Task Force	Reapproval of G75.6-0698 (Reapproved 0706) Test Method for Measurment of the Shrinkage Factor of Leadframe Tape
5787	SNARF	Packaging 5 Year Review Task Force	Reapproval of G75.7-0698 (Reapproved 0706) Test Method for Measurment of Thermal Decomposition Temperature of Leadframe Tape and Aehesive
5788	SNARF	Packaging 5 Year Review Task Force	Reapproval of G75.8-0698 (Reapproved 0706) Test Method for Measurment of the Coefficient of Thermal Expansion and Glass Transition Temperature of Leadframe Tape
5789	SNARF	Packaging 5 Year Review Task Force	Reapproval of G75.9-0698 (Reapproved 0706) Test Method for Measurment of Tensile Strength
5790		Packaging 5 Year Review Task Force	Reapproval of G75.10-0698 (Reapproved 0706) Test Method for Measurment of Volume and Surface Resistivity of the Leadframe Tape
5791		Packaging 5 Year Review Task Force	Reapproval of G75.11-0698 (Reapproved 0706) Test Method for Measurment of the Dielectric Constant and Dissipation Factor of the Leadframe Tape
5792	SNARF	Packaging 5 Year Review Task Force	Reapproval of G75.12-0698 (Reapproved 0706) Test Method for Measurment of Breakdown Strength of Leadframe Tape
5793		Packaging 5 Year Review Task Force	Reapproval of G75.13-0698 (Reapproved 0706) Test Method for Measurment of the Leakage Current in Leadframe Tape

Table 6 New Action Items (or move to Section 8, Action Item Review)

Item #	Assigned to	Details
PKG140508-4	Thin Chip Handling TF	To prepare SNARF and submit it at the next JA TC Chapter Meeting.
PKG140929-1	SEMI Staff	To forward adjudication result of Doc.#5753-5757 to the ISC A&R Subcommittee for procedural
PKG140929-2	SEMI Staff	To forward adjudication the correction of G92 Related Information to the ISC A&R Subcommittee for procedural review.
PKG140929-3	SEMI Staff	To prepare SNARF for SEMI G75-G75.13 Reapproval ballot and submit them for Cycle 7, 2014.
PKG140929-4	Haruo Shimamoto	To check their intention if they will participate in the activities of the Tape Adhensive Strength Measurement TF to Furukawa Electronics and Hitachi Chemical
PKG140929-5	Masahiro Tsuriya	To prepare TFOF of the Adhensive Strength Measurement TF and submit it GCS via SEMI staff.





1 Welcome, Reminders and Introductions

Masahiro Tsuriya, committee co-chair, called the meeting to order at 15:00. Self-introductions were made followed by the agenda review.

2 Required Meeting Elements

The meeting reminders on program membership requirement, antitrust issues, intellectual property issues and international effective meeting guidelines, were reviewed by SEMI staff, Naoko Tejima.

3 Review of Previous Meeting Minutes

The committee reviewed the minutes of the previous meeting held on July 14, 2014.

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

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

Discussion: None

Vote: 10 in favor and 0 opposed. **Motion passed.**

Attachment: 01_JA_PKG_Previous_Mtg_Minutes_140929

4 SEMI Staff Report

Naoko Tejima gave the SEMI staff report. This report included PV Automation TC Transformation to Automation Technology TC, New Task Force Operation Guideline, SEMI Global 2014 & 2015 Calendar of Events, Global Standards Meeting Schedule, SEMICON Europa 2014 Meetings, NA Fall Standards Meetings, SEMICON Japan 2014 Information, 2014 Critical Dates for SEMI Standards Ballots, SEMI Standards Publication, A&R Ballot Review and Contact Information.

Attachment: 02_SEMI_Staff_Report_140929

Attachment: 03_Task_Force_Operation_Guideline_140929

5 Liaison Reports

5.1 North America 3DS-IC Committee Report

Naoko Tejima briefly reported for the North America 3DS-IC Committee. This report included Leadership, Organization Chart, Task Force Overview, Meeting Information, Document Review Summary, SNARFs, Issued NA 3DS-IC Ballots, NA 3DS-IC Meeting Schedule and Contact information.

Attachment: 04_NA_3DS-IC_Report_140929

5.2 Taiwan 3DS-IC Committee Report

No report was provided.





6 Ballot Review

- 6.1 The following documents passed committee review and will be forwarded to the ISC A&R SC for procedural review.
 - Doc.#5753, Reapproval of SEMI G74-0699 (Reapproved 0706) Specification for Tape Frame for 300 mm Wafers.
 - Doc.#5754, Reapproval of SEMI G77-0699 (Reapproved 0706) Specification for Frame Cassette for 300 mm Wafers
 - Doc.#5755, Reapproval of SEMI G81-0307 Specification for Map Data Items
 - Doc.#5756, Reapproval of SEMI G81.1-0307 Specification of Grand Concept of Map Data for Characteristics of Dice on Substrate
 - Doc.#5757, Reapproval of SEMI G87-1108 Specification for Plastic Tape Frame for 300 mm Wafer

Action Item: SEMI staff to forward adjudication result of Doc.#5753-5757 to the ISC A&R Subcommittee for procedural

review.

 Attachment:
 05_5753_Ballot_Report_140929

 Attachment:
 06_5754_Ballot_Report_140929

 Attachment:
 07_5755_Ballot_Report_140929

 Attachment:
 08_5756_Ballot_Report_140929

 Attachment:
 09_5757_Ballot_Report_140929

7 Task Force Reports

7.1 Global Coordinating Subcommittee (GCS)

Kazunori Kato reported for the Global Coordinating Subcommittee (GCS) that there were no activities between the previous committee meeting and today.

7.2 Electromagnetic Characterization Study Group

Mikio Kiyono reported for Electromagnetic Characterization Study Group. Of note:

 A face-to-face meeting with JEITA LPB (LSI Package and Board) Working Group will be held in October, and future activities will be discussed.

7.3 DFM Study Group

No report was provided by the Task Force.

7.4 450mm Japan Assembly & Test Die Preparation Task Force

Sumio Masuchi reported for 450mm Japan Assembly & Test Die Preparation Task Force. Of note:

- Regarding "Figure R1-1, Bottom view of 450TFC, KCP Locations" of G92 (Doc. 5636), it was turned out that it had
 not replaced to the revised one. This correction was submitted to committee review and passed. It will be forwarded
 to the ISC A&R SC for procedural review.
- The next TF meeting will be held in October or November to discuss about notchless matter.

Action Item: SEMI staff to forward adjudication the correction of G92 Related Information to the ISC A&R Subcommittee for procedural review.

Attachment: 10_ATDP_TF_Report_140929

Attachment: 11_Procedural_Review_Voting_Sheet_for_G92_RI_140929





7.5 Fiducial Mark Interoperabiltiy Task Force

Mitsuhiro Matsuda reported for the Fiducial Mark Interoperabiltiy Task Force. The Task Force met earlier in the day. Of note:

• "SEMI T7-0709, Specification for Back Surface Marking of Double-Side Polished Wafers with a Two-Dimensional Matrix Code Symbol" was reviewed. TF basically agreed to the proposed draft, however, there are some issues and they should be sent to NA Traceability 5 Year TF.

Attachment: 12_Fiducial_Mark_Interoperability_TF_Report_140929

7.6 Thin Die Bending Strength Measurement Method Task Force

Haruo Shimamoto reported on progress for the Thin Chip Die Bending Strength Measurement Method Task Force. Of note:

- Doc.#5691, New Standard: Test Method for Measurement of Chip (Die) Strength by Mean of Cantilever Bending, passed A&R and was published as SEMI G96-0914.
- TF is planning to submit the technical paper to JIEP Proceedings.

7.7 Thin Chip Handling Task Force

Nobuhiro Shinozuka reported on progress for the Thin Chip Handling Task Force. The Task Force met earlier in the day. Of note:

- TF is working for the contents of SNARF. The 1st draft of the following 2 items were submitted. But, they should be discussed more.
 - ✓ Adhesive Strength Test Method for Adhesive Tray Used for 3D-IC Manufacturing and Shipping
 - ✓ Specification for adhesive Tray Used for 3D-IC Manufacturing and Shipping

7.8 5-Year-Review Task Force

Masahiro Tsuriya reported for the 5-Year-Review Task Force. The Task Force met earlier in the day. The following 14 documents will be submitted for Cycle 7 as reapproval documents.

Motion: To submit SEMI G75-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 12 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.1-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.2-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. Motion passed.

Motion: To submit SEMI G75.3-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**





Motion: To submit SEMI G75.4-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.5-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.6-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.7-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.8-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.9-0698 Reapproval ballot for Cycle 7, 2014.

 $By / 2^{nd}$: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. Motion passed.

Motion: To submit SEMI G75.10-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.11-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. **Motion passed.**

Motion: To submit SEMI G75.12-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. Motion passed.

Motion: To submit SEMI G75.13-0698 Reapproval ballot for Cycle 7, 2014.

By / 2nd: Kazunori Kato (AiT) / Haruo Shimamoto (AIST)

Discussion: None.

Vote: 11 in favor and 0 opposed. Motion passed.

JA Packaging Committee Meeting Minutes





Action Item: SEMI staff to prepare SNARF for SEMI G75-G75.13 Reapproval ballot and submit them for Cycle 7, 2014.

13_SNARF_of_SEMI-G75_140929 **Attachment:** 14_SNARF_of_SEMI-G75.1_140929 **Attachment: Attachment:** 15_SNARF_of_SEMI-G75.2_140929 **Attachment:** 16_SNARF_of_SEMI-G75.3_140929 **Attachment:** 17_SNARF_of_SEMI-G75.4_140929 18_SNARF_of_SEMI-G75.5_140929 **Attachment: Attachment:** 19_SNARF_of_SEMI-G75.6_140929 **Attachment:** 20_SNARF_of_SEMI-G75.7_140929 **Attachment:** 21_SNARF_of_SEMI-G75.8_140929 22_SNARF_of_SEMI-G75.9_140929 **Attachment:** 23_SNARF_of_SEMI-G75.10_140929 **Attachment:** 24_SNARF_of_SEMI-G75.11_140929 **Attachment: Attachment:** 25_SNARF_of_SEMI-G75.12_140929 **Attachment:** 26_SNARF_of_SEMI-G75.13_140929

7.9 3D-IC Study Group

Masahiro Tsuriya reported on progress for the 3D-IC Study Group. The Task Force met earlier in the day. Of note:

- TF is discussing about setting up "Tape Adhesive Strength Measurement TF". TFOF will be submitted to GCS or the next committee meeting.
- The Global Meeting with NA and TW members will be held during SEMICON Japan 2014. Meeting Notification and Agenda will be soon
 - ✓ 13:30-17:00, December 3, 2014
 - ✓ Room 605, 6F, Conference Tower, Tokyo Big Sight

Action Item: Haruo Shimamoto to check their intention if they will participate in the activities of the Tape Adhesive Strength Measurement TF to Furukawa Electronics and Hitachi Chemical.

Action Item: Masahiro Tsuriya to prepare TFOF of the Adhesive Strength Measurement TF and submit it GCS via SEMI staff.





8 Old Business

8.1 Previous Meeting Action Items

Naoko Tejima reviewed the previous meeting action items.

Table 7 Previous Meeting Actions Items

Item #	Assigned to	Details
PKG140508-3	Masahiro Tsuriya	To draft the consensus opinion of JA PKG Committee to the organization corresponding to the NA 3DS-IC Committee. Close
PKG140508-4	Thin Chip Handling TF	To prepare SNARF and submit it at the next JA TC Chapter Meeting. Open
PKG140714-1	SEMI staff	To prepare SNARF for SEMI G81, G81.1, G74, G77 and G87 Reapproval ballot and submit them for Cycle 5, 2014. Close
PKG140714-2	SEMI staff	To submit the revised committee charter to co-chairs of JRSC. Close
PKG140714-3	Kazunori Kato	To report the revised committee charter at JRSC. Close

9 New Business

9.1 Event during SEMICON Japan 2014

The Global Meeting of 3D-IC SG will be held as follows.

- ✓ 13:30-17:00, December 3, 2014
- ✓ Room 605, 6F, Conference Towere, Tokyo Big Sight

10 Action Item Review

10.1 New Action Items

Naoko Tejima reviewed the new action items. These can be found in the New Action Items table at the beginning of these minutes.

11 Next Meeting and Adjournment

The next meeting of the Japan Packaging Committee is scheduled for Tuesday, 20, 2015, 15:00-17:00, at SEMI Japan, Tokyo, Japan.





Respectfully submitted by: Naoko Tejima Manager, Standards SEMI Japan

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Minutes approved by:

Kazunori Kato (AiT), Co-chair	November 13, 2014
Masahiro Tsuriya (iNEMI), Co-chair	Novemver 14, 2014

Table 8 Index of Available Attachments #1

#	Title
1	JA_PKG_Previous_Mtg_Minutes_140929
2	SEMI_Staff_Report_140929
3	Task_Force_Operation_Guideline_140929
4	NA_3DS-IC_Report_140929
5	5753_Ballot_Report_140929
6	5754_Ballot_Report_140929
7	5755_Ballot_Report_140929
8	5756_Ballot_Report_140929
9	5757_Ballot_Report_140929
10	ATDP_TF_Report_140929
11	Procedural_Review_Voting_Sheet_for_G92_RI_140929
12	Fiducial_Mark_Interoperability_TF_Report_140929
13	SNARF_of_SEMI-G75_140929
14	SNARF_of_SEMI-G75.1_140929
15	SNARF_of_SEMI-G75.2_140929
16	SNARF_of_SEMI-G75.3_140929
17	SNARF_of_SEMI-G75.4_140929
18	SNARF_of_SEMI-G75.5_140929
19	SNARF_of_SEMI-G75.6_140929
20	SNARF_of_SEMI-G75.7_140929
21	SNARF_of_SEMI-G75.8_140929
22	SNARF_of_SEMI-G75.9_140929
23	SNARF_of_SEMI-G75.10_140929
24	SNARF_of_SEMI-G75.11_140929
25	SNARF_of_SEMI-G75.12_140929
26	SNARF_of_SEMI-G75.13_140929

^{#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 Naoko Tejima at the contact information above.