Silicon Wafer Japan TC Chapter

Meeting Summary and Minutes

Japan Standards Spring Meetings 2024
Friday, April 26, 2024 10:00 AM – 11:30 AM JST
Official Virtual TC Chapter Meeting

TC Chapter Announcements

Next TC Chapter Meeting

Thursday, August 29, 2024 2:00 PM – 4:00 PM JST

SEMI Japan Office, Tokyo, Japan/ Official Virtual TC Chapter Meeting (Hybrid)

Table 1 Meeting Attendees

Co-Chairs: Tetsuya Nakai (SUMCO), Ryuji Takeda (Global Wafers Japan)
SEMI Staff: Akiko Yoshida (SEMI Japan)

Company	*Last*	*First*	*Company*	*Last*	*First*
SELF	Kawai	Naoyuki	SUMIKA CHEMICAL ANALYSIS SERVICE,LTD.	Omata	Mikako
SELF	Yoshise	Masanori			
GlobalWafers Japan	Takeda	Ryuji	SEMI Japan	Osawa	Naoko
SUMCO	Nakai	Tetsuya	SEMI Japan	Sato	Hiroshi
Shin-Etsu Handotai Co., Ltd.	Tsunoda	Hitoshi	SEMI Japan	Yoshida	Akiko

Table 2 Leadership Changes

WG/TF/SC/TC Name	*Previous Leader*	*New Leader*
None		

Table 3 TC Chapter Structure Changes

Previous WG/TF/SC Name	*New WG/TF/SC Name or Status Change*
None	

Table 4 Ballot Results

Document #	*Document Title*	*Committee Action*
None		

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

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

Table 5 Ratification Ballot Results

Document #	*Document Title*	*ISC A&R Action*	*A&R Forms*
None			

Note 1: **Passed** Ratification ballots will be submitted to SEMI publication for final processing.

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

Table 6 Activities Approved by the GCS between meetings of the TC Chapter

#	*Type*	*SC/TF/WG*	*Details*
None			

Table 7 Authorized Activities

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

#	*Type*	*SC/TF/WG*	*Details*
None			

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

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

Table 8 Authorized Ballots

#	*When*	*TF*	*Details*
None			

Table 9 SNARF(s) Granted a One-Year Extension

#	*TF*	*Title*	*Expiration Date*
None			

Table 10 SNARF(s) Abolished

#	*TF*	*Title*
5772	Japan Test Method TF	Revision of MF391-0310: Test Methods for Minority Carrier Diffusion Length in Extrinsic Semiconductors by Measurement of Steady-state Surface Photovoltage

Table 11 Standard(s) to receive Inactive Status

Standard Designation	*Title*
None	

Table 12 New Action Items

Item #	*Assigned to*	*Details*
SW20240426-01	Ryuji Takeda (GlobalWafers Japan)	To communicate with Kevin Nguyen (SEMI NA Staff) to put SEMI MF391-0310 on 5-year review process.

Table 13 Previous Meeting Action Items

Item #	*Assigned to*	*Details*
SW20231214-01	Test Method TF	To review the contents of SMI M88 to decide whether it is reapproval ballot by next TC Chapter meeting. →Open
SW20231214-02	Tetsuya Nakai (SUMCO)	To inform the proposal and ask each TF leaders regarding M 52 and M73 to proceed the action. →Closed

1 Welcome, Reminders, and Introductions

Tetsuya Nakai (SUMCO), called the meeting to order at 10:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01_Meeting Reminders

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion: Approve the minutes as written.
By / 2nd: Ryuji Takeda (GlobalWafers Japan)/ Naoyuki Kawai (Self)
Discussion: None.
Vote: Result: 5-Y 0-N. **Motion Passed.**

Attachment: 02_20231214_Global Silicon Wafer Japan TC Chapter Meeting Minutes_approved

3 Liaison Report

3.1 *Japan Regional Standards Committee (JRSC)*

Ryuji Takeda (GlobalWafers Japan) reported for the JRSC. At the previous meeting held on April 9, the JRSC recommended that GoToMeeting, which has been used for many years as an official web conferencing system for audio and visual content for the Japan TC Chapter meetings, be replaced by Microsoft Teams due to recent connection problems.

3.2 *Global Coordinating Subcommittee (GCS)*

Ryuji Takeda (GlobalWafers Japan) reported for the GCS that there had been no voting or discussion in Silicon Wafer GCS between meetings of the Silicon Wafer Japan TC Chapter.

3.3 *Silicon Wafer Europe TC Chapter*

Tetsuya Nakai (SUMCO) reported that there had been no updates from the previous meeting.

Attachment: 03_EU Si Wafer TC Chapter Liaison Report Dec 2023 v1

3.4 *Silicon Wafer North America TC Chapter*

Tetsuya Nakai (SUMCO) reported for the Silicon Wafer North America TC Chapter. Of note:

- Doc.#7223, Reapproval of SEMI M35-1114 (Reapproved 1019) Guide for Developing Specifications for Silicon Wafer Surface Features Detected by Automated Inspection and Doc.#7224, Reapproval of SEMI MF1528-0413 (Reapproved 1018) Test Method for Measuring Boron Contamination in Heavily Doped N-Type Silicon

Substrates by Secondary Ion Mass Spectrometry will be submitted for Cycle 4 from Int'l Test Methods TF to be reviewed at SEMICON West.

- Doc.#7024, Line Item Revision to SEMI M1-0918, Specification for Polished Single Crystal Silicon Wafers (Re: 300mm wafer diameter tolerance reduction from ± 200um to ±100um) was submitted for Cycle 2 from Int'l Polished Wafer TF to be reviewed at SEMICON West.
- Int'l Automated Advance Surface Inspection TF will remove references to 450mm wafers from M52 to be consistent with changes being made to M49.

Attachment: 04_NA Si Wafer TC Chapter Liaison Report April 2024

4 SEMI Staff Report

Akiko Yoshida (SEMI Japan) gave the SEMI Staff Report. Of note:

- New online voting system went live for Cycle 3, 2024. This integrates and streamlines sign-in process with various SEMI/Standards member services, and improves data management for SEMI internal database. It is also expected to bring updated user interface while maintaining functionality that's familiar to voters.
- SEMI Standards Regulations and Procedure Manual were updated in February 2024. They are available at www.semi.org/standards (under Tools for Developing Standards).
- TFs have one year from 02/20/24 to implement use of Connect@SEMI (https://connect.semi.org) for TF management and document development depository. Once TFs have implemented use of Connect@SEMI, they shall use it to: maintain the TF member roster up to date, share the working drafts in PDF, and distribute the Draft Document at least one week before ballot submission to SEMI.
- Meeting Required Elements have been updated to include notice on confidential information.

Attachment: 05_Staff Report March 2024 v4.1

5 Ballot Review

None.

6 Subcommittee and Task Force Reports

6.1 *International Advanced Wafer Geometry Task Force*

Masanori Yoshise (Self) reported for the International Advanced Wafer Geometry Task Force. Of note:

- The TF preliminary reviewed the ballot result of Doc.#7163, REAPPROVAL OF SEMI MF1530-0707 (Reapproved 1018), which will be reviewed at SEMICON West.
- Siltronic and SUMCO will work together to incorporate both their techniques into the draft Doc.#7192, Revision of SEMI M73-1013 TEST METHOD FOR EXTRACTING RELEVANT CHARACTERISTICS FROM MEASURED WAFER EDGE PROFILES to be reviewed by the TF at SEMICON West.
- The TF is developing Doc.#6983A, Revision of SEMI M49-0918 With Title Change To: Guide for Specifying Geometry Measurement Systems for Silicon Wafers for the 130 nm to 3 nm Technology Generations.
- There was a discussion on Doc.#7024, Line Item Revision to SEMI M1-0918, Specification for Polished Single Crystal Silicon Wafers (Re: 300mm wafer diameter tolerance reduction from ± 200um to ±100um).

Attachment: 06_AWG NA Spring 2024 minutes draft

6.2 *International/ Japan Test Method Task Force*

Ryuji Takeda (GlobalWafers Japan) reported for the International/ Japan Test Method Task Force. Of note:

- The TF is drafting Doc.#6570B, New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scatter Tomography Technique. The TF wishes to present the draft document at the next TC meeting.
- The TF needs to reschedule the plan for developing of Doc.#6687 (Revision to M51) and Doc.#6702 (Revision to M60).
- M85 revision work will be started in May.
- The TF wishes to abandon SANRF#5772 (Revision to MF391-0310, Test Methods for Minority Carrier Diffusion Length in Extrinsic Semiconductors by Measurement of Steady-state Surface Photovoltage) as it is no longer applicable.

Motion:	Abandon SNARF #5772, Revision of MF391-0310: Test Methods for Minority Carrier Diffusion Length in Extrinsic Semiconductors by Measurement of Steady-state Surface Photovoltage.
By / 2nd:	Ryuji Takeda (GlobalWafers Japan) /Naoyuki Kawai (Self)
Discussion:	After abandoning this SNARF, the TF will put this matter on 5-year review process.
Vote:	Result: 4-Y 0-N. **Motion Passed.**

Attachment: 07_Japan Test Method TF meeting April 19 2024_R1

6.3 International Advanced Automated Surface Inspection Task Force

No report provided.

6.4 *International Polished Wafers Task Force*

Ryuji Takeda (GlobalWafers Japan) reported for the TF. He asked the TF leader, Hirofumi Okano (GlobalWafers Japan) to remove description on 450 mm. This will be discussed at SEMICON West and the ballot submission timing will be coordinated between TF and SEMI Staff.

6.5 *International Epitaxial Wafers Task Force*

Hitoshi Tsunoda (Shin-Etsu Handotai) reported for the TF that there had been no activities, but the work to remove 450 mm description would be started. Tetsuya Nakai (SUMCO) recommended to start working after M1 revision ballot passed the review at SEMICON West, and Hitoshi Tsunoda said that the TF would communicate with Dinesh Gupta (STA), NA leader of the TF, on this matter.

6.6 *International Annealed Wafers Task Force*

Ryuji Takeda (GlobalWafers Japan) reported for the TF that there had been no relevant document on 450 mm.

6.7 *International SOI Wafers Task Force*

Tetsuya Nakai (SUMCO) reported that there had been no updates.

6.8 *International Terminology Task Force*

Tetsuya Nakai (SUMCO) reported that there had been no updates.

7 Old Business

7.1 *Project Period Review*

None.

7.2 *5 Year Review Check*

- SEMI M88-0119, Practice for Sample Preparation Methods for Measuring Minority Carrier Diffusion Length in Silicon Wafers by Surface Photovoltage Methods

  It was confirmed that the Test Method TF will discuss this matter and the result will be reported at the next TC meeting.

- SEMI M85-0120, Guide for the Measurement of Trace Metal Contamination on Silicon Wafer Surface by Inductively Coupled Plasma Mass Spectrometry

  It was confirmed that the Test Method TF is drafting the document.

8 New Business

None.

9 Action Item Review

9.1 *Open Action Item*

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SW20231214-02	Tetsuya Nakai (SUMCO)	To inform the proposal and ask each TF leaders regarding M 52 and M73 to proceed the action. →Closed

9.2 *New Action Item*

Item #	*Assigned to*	*Details*
SW20240426-01	Ryuji Takeda (GlobalWafers Japan)	To communicate with Kevin Nguyen (SEMI NA Staff) to put SEMI MF391-0310 on 5-year review process.

10 Next Meeting and Adjournment

The next meeting is scheduled for Thursday, August 29, 2024 2:00 PM - 4:00 PM JST at SEMI Japan Office, Tokyo, Japan and via Official Virtual TC Chapter Meeting. See http://www.semi.org/standards-events for the current list of events.

Adjournment: 11:30 AM

Respectfully submitted by:

Akiko Yoshida

Sr. Coordinator

SEMI Japan

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Minutes tentatively approved by:

Tetsuya Nakai (SUMCO), Co-chair	May 7, 2024
Ryuji Takeda (Global Wafers Japan), Co-chair	May 8, 2024

Table 14 Index of Available Attachments[#1]

Title	*Title*
01_Meeting Reminders	05_Staff Report March 2024 v4.2
02_20231214_Global Silicon Wafer Japan TC Chapter Meeting Minutes_approved	06_AWG NA Spring 2024 minutes draft
03_EU Si Wafer TC Chapter Liaison Report Dec 2023 v1	07_Japan Test Method TF meeting April 19 2024_R1
04_NA Si Wafer TC Chapter Liaison Report April 2024	

#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 Akiko Yoshida at the contact information above.