



Global Silicon Wafer Japan TC Chapter

Meeting Summary and Minutes

Japan Standards Fall 2020 Meetings
 Tuesday, September 29,2020, 14:00 –17:00
 SEMI Japan office, Tokyo, Japan

TC Chapter Announcements

Next TC Chapter Meeting

Friday, January 15,2021, 13:30-17:00(JST)

SEMI Japan office, Tokyo, Japan

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: Naoyuki Kawai (Meiji University), Tetsuya Nakai (SUMCO)

SEMI Staff: Mami Nakajo/

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Meiji University	Kawai	Naoyuki	SUMCO	Nakai	Tetsuya
Wafer Information Service	Yoshise	Masanori	TEL	Mashiro	Supika
<i>Global Wafers Japan</i>	<i>Takeda</i>	<i>Ryuji</i>	<i>Kobelco Research Institute.INC</i>	<i>Sumie</i>	<i>Shingo</i>
<i>KOKUSAI ELECTRIC</i>	<i>Matsuda</i>	<i>Mitsuhiro</i>	<i>Hitachi High-Technologies</i>	<i>Oka</i>	<i>Kenji</i>
			SEMI Japan	Collins	Junko
SEMI Japan	Nakajo	Mami	SEMI Japan	Kanno	Hirofumi

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
International Polished Wafers TF	Yasutoshi Takamori (Global Wafers Japan) stepped down for the co-chair.	Hirofumi Okano (Global Wafers Japan) has been newly appointed

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>
None		

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>

#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 Activities Approved by the GCS between meetings of the TC Chapter

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
6680	SNARF	International Advanced Wafer Geometry Task Force	Reapproval of M77-1015 Test Method for Determining Wafer Near-Edge Geometry Using Roll-Off Amount, ROA
6680	Ballot Submission	International Advanced Wafer Geometry Task Force	Reapproval of M77-1015 Test Method for Determining Wafer Near-Edge Geometry Using Roll-Off Amount, ROA
6681	SNARF	Japan TC Chapter of Global Technical Committee	Reapproval of MF1451 Test Method for Measuring Sori on Silicon Wafers by Automated Noncontact Scanning
6681	Ballot Submission	Japan TC Chapter of Global Technical Committee	Reapproval of MF1451 Test Method for Measuring Sori on Silicon Wafers by Automated Noncontact Scanning

Table 6 Authorized Activities

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

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
None			

#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>
None			

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

#	TF	Title	Expiration Date
5772	Japan Test Method TF	SNARF for: Revision of MF391-0310: Test Methods for Minority Carrier Diffusion Length in Extrinsic Semiconductors by Measurement of Steady-state Surface photovoltage	2021/04/18
5981	Japan Test Method TF	SNARF for: NEW STANDARD: TEST METHOD FOR RECOMBINATION LIFETIME OF THE EPILAYER OF THE SILICON EPITAXIAL WAFER (p/p+, n/n+) BY THE SHORT WAVELENGTH EXCITATION MICROWAVE PHOTOCONDUCTIVE DECAY METHOD	2021/04/18

Table 9 SNARF(s) Abolished

#	TF	Title
5769	Japan Test Method TF	New Standard: Test Method for Nitrogen Content in Silicon by Infrared Absorption

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
SEMI M80-0116	Specification for Front-Opening Shipping Box Used to Transport and Ship 450 mm Wafers

Table 11 New Action Items

Item #	Assigned to	Details
20200929-01	SEMI Staff	To update SNARF#5769 data. →This SNARF was abolished
20200929-02	Co-chairs	To list up in-process ballots and consider how to process them.
20200929-03	Co-chairs	To get JRSC approval for the appointment of Ryuji Takeda (Global Wafers) as the third Co-chair.
20200929-04	SEMI Staff	To show the recommended OS for SVM

Table 12 Previous Meeting Action Items

Item #	Assigned to	Details
None		

1 Welcome, Reminders, and Introductions

Naoyuki Kawai (Meiji University), called the meeting to order at 14:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01-02_SEMI Standards Required Elements_June2020_E+J

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion: To approve the previous meeting minutes of the Silicon Wafer Japan TC Chapter on December 12, 2019 with editorial changes.

By / 2nd: Tetsuya Nakai (SUMCO) / Masanori Yoshise (Wafer Information Service)

Discussion: None

Vote: 3 in favor and 0 opposed. **Motion passed.**

Attachment: 02-01_Silicon Wafer Japan TC_201912.12_Draft_R1.1

3 Liaison Reports

3.1 *Silicon Wafer Europe TC Chapter*

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

Action Item: None

Attachment: 03-01_Europe Si Wafer Liaison Report Sept2020 v1

3.2 *Silicon Wafer North America TC Chapter*

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

Action Item: None

Attachment: 03-02_NA Silicon Wafer TC Liaison Report Sept 2020 v1

3.3 *GCS*

Tetsuya Nakai (SUMCO) reported for the GCS Of note:

Action Item: None

Attachment: 03-03_GCS Meeting Minutes 081120

3.4 *SEMI Staff Report*

Mami Nakajo (SEMI) gave the SEMI Staff Report. Of note:

- New Style Manual (September 2020)

Attachment: 04-01_Staff Report August 2020_v1,

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 # <Number>, <Ballot Title>

There is no ballot to review.

Action Item: None

Attachment: None,

5 Subcommittee and Task Force Reports

5.1 International Advanced Wafer Geometry Task Force/Japan Advanced Wafer Geometry Task Force

Masanori Yoshise (Wafer Information Service) reported for the International Advanced Wafer Geometry Task Force/Japan Advanced Wafer Geometry Task Force as follows.

Action Item: None

Attachment: 06-01_AWG TF Meeting Minutes,

5.2 International/Japan Test Method Task Force

Ryuji Takeda (Global Wafers Japan) reported for the Japan Test Method Task Force.

Action Item: Checking the status of the following documents,

Attachment: 06-02_Test Method TF Meeting Minutes_2020.9,24 (Rev 1),

The following documents are still on the "5-year Review Check" list, and the Test Method TF is checking the status.

- M51-1012: Test Method for Characterizing Silicon Wafer by Gate Oxide Integrity
- M60-1014: Test Method for Time Dependent Dielectric Breakdown Characteristics of SiO₂ Films for Si Wafer Evaluation

5.3 International Advanced Automated Surface Inspection Task Force

Kenji Oka (*Hitachi High-Technologies*) reported for the International Advanced Automated Surface Inspection Task Force.

Action Item: None,

Attachment: 06-03_IAASI TF Update Japan 2020 Fall.Rev1.5

5.4 International SOI Wafers Task Force

Tetsuya Nakai (SUMCO) reported for the *International SOI* Task Force.

Action Item: none,

Attachment: 06-08_Intl SOI TF Meeting 081120

5.5 International 450mm Shipping Box Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.6 International Polished Wafers Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.7 International Epitaxial Wafers Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.8 International Annealed Wafers Task Force

No special topic was reported at this meeting.

Action Item: None,

Attachment: None,

5.9 International Terminology Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

6 Old Business

6.1 Project Period Review

The following two SNARFs are active and granted a one year extension.

- #5772 SNARF for: Revision of MF391-0310: Test Methods for Minority Carrier Diffusion Length in Extrinsic Semiconductors by Measurement of Steady-state Surface photovoltage
 - By Japan Test Method TF
 - Expiration Date: 2021/04/18

- #5981 SNARF for: NEW STANDARD: TEST METHOD FOR RECOMBINATION LIFETIME OF THE EPILAYER OF THE SILICON EPITAXIAL WAFER (p/p+, n/n+) BY THE SHORT WAVELENGTH EXCITATION MICROWAVE PHOTOCONDUCTIVE DECAY METHOD
 - By Japan Test Method TF
 - Expiration Date: 2021/04/18

The following one SNARF is abolished.

- #5769 New Standard: Test Method for Nitrogen Content in Silicon by Infrared Absorption
 - By Japan Test Method TF

Action Item 20200929-01:SEMI Staff to update SNARF#5769 data

6.2 5-year Review Check

The following document to be proposed for Standards to receive Active Status and Activities Approved by the GCS between meetings of the TC Chapter.

- #6680: Reapproval of M77-1015 Test Method for Determining Wafer Near-Edge Geometry Using Roll-Off Amount, ROA
- #6681: Reapproval of MF1451 Test Method for Measuring Sori on Silicon Wafers by Automated Noncontact Scanning

The following document to be proposed for Standards to receive Inactive Status.

- M80-0116: Specification for Front-Opening Shipping Box Used to Transport and Ship 450 mm Wafers
- addressed the committee on this topic.

The following documents are still on the "5-year Review Check" list, and the Test Method TF is checking the status.

- M51-1012: Test Method for Characterizing Silicon Wafer by Gate Oxide Integrity
- M60-1014: Test Method for Time Dependent Dielectric Breakdown Characteristics of SiO₂ Films for Si Wafer Evaluation

Action Item 20200919-02: Co-chairs to list up in-process ballots and consider how to process them

Attachment: none,

7 New Business

7.1 Committee Leadership Change

Naoyuki Kawai (Meiji University) addressed the committee on this topic.

Motion: To recommend Ryuji Takeda(Global Wafers Japan) as the third Co-chair.

By / 2nd: Tetsuya Nakai (SUMCO) / Masanori Yoshise (Wafer Information Service)

Discussion: None

Vote: 3 in favor and 0 opposed. **Motion passed.**

Action Item 20200929-03: To get JRSC approval for the appointment of Ryuji Takeda (Global Wafers Japan) as the third Co-chair. (Co-chairs)

Attachment: None

7.2 Information Sharing

Masanori Yoshise (Wafer Information Service) addressed the committee on this topic.

Action Item: None

Attachment:07-01_M12 M13 Revision at Traceability Committee discussion purpose Sep29

7.3 Conduct a simulation of Official Virtual TC Chapter Meeting.

- Official Virtual Simulation was held and evaluated how SEMI Virtual Meeting (SVM) software works using svm.semi.org.
- Japan TC Chapter confirmed to opt in of the Official Virtual TC Chapter Meeting.



Naoyuki Kawai (Meiji University) addressed the committee on this topic.

- Motion:** To support approval of official Virtual Meeting.
- By / 2nd:** Tetsuya Nakai (SUMCO) / Masanori Yoshise (Wafer Information Service)
- Discussion:** None
- Vote:** 3 in favor and 0 opposed. **Motion passed.**

Action Item 20200919-04: To show the recommended OS for SVM (Semi Staff)

Attachment: None

8 Next Meeting and Adjournment

The next meeting is scheduled for Friday January15,2021 13:30-17:00(JST) SEMI Japan office & Web..

See <http://www.semi.org/standards-events> for the current list of events.

Adjournment: [17:00]>.

Respectfully submitted by:

Mami Nakajo
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Minutes tentatively approved by:

Tetsuya Nakai (SUMCO), Co-chair	<Date approved>
Naoyuki Kawai (Meiji University), Co-chair	<Date approved>

Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
01-02_SEMI Standards Required Elements_June2020_E+J	06-01_AWG TF Meeting Minutes
02-01_Silicon Wafer Japan TC_201912.12_Draft_R1.1	06-02_Test Method TF Meeting Minutes_2020.9,24 (Rev 1)
03-01_Europe Si Wafer Liaison Report Sept2020 v1	06-03_IAASI TF Update Japan 2020 Fall.Rev1.5
03-02_NA Silicon Wafer TC Liaison Report Sept 2020 v1	06-03_IAASI TF Update Japan 2020 Fall.Rev1.5
03-03_GCS Meeting Minutes 081120	06-08_Intl SOI TF Meeting 081120
04-01_Staff Report August 2020_v1	07-01_M12 M13 Revision at Traceability Committee discussion purpose Sep29

^{#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.