Japan Silicon Wafer TC Chapter
Meeting Summary and Minutes

Japan Summer Standards Meeting
Thursday, March 11, 2015, 13:30-16:00
Conference Tower, Tokyo Big Sight, Tokyo, Japan

Next TC Chapter Meeting
Friday, June 10, 2016, 13:30-17:00,
Meeting Room, SEMI Japan Office, Tokyo, Japan

Table 1 Meeting Attendees
Co-Chairs: Naoyuki Kawai (Self), Tetsuya Nakai (SUMCO)
SEMI Staff: Junko Collins (SEMI Japan)

<table>
<thead>
<tr>
<th>Company</th>
<th>Last</th>
<th>First</th>
<th>Company</th>
<th>Last</th>
<th>First</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>Kawai</td>
<td>Naoyuki</td>
<td>GlobalWafers Japan</td>
<td>Takeda</td>
<td>Ryuji</td>
</tr>
<tr>
<td>Kumai Consulting</td>
<td>Kumai</td>
<td>Sadao</td>
<td>Shin’etsu-Handotai</td>
<td>Toda</td>
<td>Naohisa</td>
</tr>
<tr>
<td>SUMCO</td>
<td>Nakai</td>
<td>Tetsuya</td>
<td>-</td>
<td>Yoshise</td>
<td>Masanori</td>
</tr>
<tr>
<td>HST Vision</td>
<td>Sasaki</td>
<td>Kunichiko</td>
<td>Kuroda Precision</td>
<td>Ito</td>
<td>Shinju</td>
</tr>
<tr>
<td>Miraial</td>
<td>Nagashima</td>
<td>Tsuyoshi</td>
<td>SEMI Japan</td>
<td>Collins</td>
<td>Junko</td>
</tr>
</tbody>
</table>

Table 2 Leadership Changes

Table 3 Ballot Results

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.

<table>
<thead>
<tr>
<th>Document #</th>
<th>Document Title</th>
<th>Committee Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>5976</td>
<td>REAPPROVAL OF SEMI M45-1110, SPECIFICATION FOR 300mm WAFER SHIPPING SYSTEM</td>
<td>Passed as balloted</td>
</tr>
</tbody>
</table>

Table 4 Authorized Ballots

<table>
<thead>
<tr>
<th>Document #</th>
<th>When</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
</table>
| 5737A      | Cycle 4, or 6 2016 | International Test Method TF | SEMI Draft Document 5737A
REVISON OF SEMI MF1391-1107 (Reapproved 0912)
TEST METHOD FOR SUBSTITUTIONAL ATOMIC CARBON CONTENT OF SILICON BY INFRARED ABSORPTION |
Table 5 Authorized Activities

<table>
<thead>
<tr>
<th>Document #</th>
<th>Type</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBD</td>
<td>SNARF Int’l Advanced Automated Surface Inspection TF</td>
<td>Revision of SEMI MF1811-xxxx GUIDE FOR ESTIMATING THE POWER SPECTRAL DENSITY FUNCTION AND RELATED FINISH PARAMETERS FROM SURFACE PROFILE DATA</td>
<td></td>
</tr>
</tbody>
</table>

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

Table 6 New Action Items

<table>
<thead>
<tr>
<th>Item #</th>
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<tbody>
<tr>
<td>SiW160311-01</td>
<td>Junko Collins</td>
<td>To report Shipping Box Task Force leaders SEMI M26-0304 (Reapproved 1110) and SEMI M29-1296 (Reapproved 1110) to be the documents for five year review.</td>
</tr>
<tr>
<td>SiW160311-02</td>
<td>Masami Ikota</td>
<td>To get ballot approval of ballot submission of Revision to SEMI MF1811 at NA Spring TC Chapter Meeting.</td>
</tr>
</tbody>
</table>

Action Items from Previous meetings

<table>
<thead>
<tr>
<th>Item #</th>
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</table>
| SiW150306-01 | Junko Collins    | 1 To forward the modified charter in Agenda 5.1 to GCS for getting approval (including ISC approval)  
2 To change the charter on the website. | 1 done  
2 open |
| SiW151217-02 | Junko Collins    | To send the request for approval to withdraw the SNARF 5069 for New Standards: Specification for 450mm Wafer Shipping System | Open |
| SiW151217-04 | Junko Collins    | To request Global TC members of 2 weeks review on the SNARF for NEW STANDARD: Test method for nitrogen content in silicon by charged particle activation analysis | Open |
1 Welcome, Reminders, and Introductions
Naoyuki Kawai, committee co-chair, called the meeting to order at 13:40. 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 Naoyuki Kawai.

Attachment: Required_Elements_Reg_20150327_E+J_2016StdTemplate

3 Review of Previous Meeting Minutes
The committee reviewed the minutes of the previous meeting held on March 6, 2015.

Motion: To approve the minutes of the previous meeting with editorial changes.
By / 2nd: Tetsuya Nakai (SUMCO) / M. Yoshise (Self)
Discussion: None
Vote: 7 in favor and 0 opposed. Motion passed.

Attachment: Minutes_150918_SiW_R1.0

4 SEMI Staff Report
Junko Collins gave the SEMI staff report. This report included Global SEMI Events, Global Standards Meetings Schedule, Ballot Critical Dates, Publication Update, A&R Ballot Review and Contact Information and SEMI Japan Standards Award recipients. Of note, Mitsuhiro Matsuda (Hitachi Kokudai Electric) has stepped down from JRSC co-chair due to termination of a term. New co-chair will be Kenji Yamagata (Daifuku).

Attachment: SEMI Staff Report 20160308_v1.0
5 Liaison Reports

5.1 Japan Regional Standards Committee (JRSC)

Some high light were included in the staff report and no other special report from the last JRSC meeting.

Attachment: None

5.2 Global Coordinating Subcommittee (GCS)

Nao Kawai reported for the Global Coordinating Subcommittee (GCS). No special report at this meeting.

Attachment: None

5.3 North America Silicon Wafer TC Chapter

North America Silicon Wafer TC Chapter did not have any meeting since SEMICON West 2016 however, all attendees reviewed attached report quickly.

Attachment: Silicon Wafer NA TC Chapter Liaison Report Feb 2016

5.4 Europe Silicon Wafer Committee

Europe Silicon Wafer TC Chapter did not have any meeting since last fall. However, all attendees reviewed the attached liaison report quickly.

Attachment: Silicon Wafer EU TC Chapter Liaison Report March 2016

5.5 JEITA Report

Naoyuki Kawai reported JEITA activities.

- In 2013, JEITA decided to disband Silicon Technology Committee, which was established in 1958 and have had good cooperation with SEMI since then, and at that point, the committee quitted to develop new JEITA standards. Since then, the cleanup committee was established to settle all the remaining business associated with the Committee, and started discussion with JSNM (Japan Society of Newer Metals), an industrial association including silicon material and wafer manufacturers. Silicon Technology Committee will sunset at the end of this fiscal year, March 31st.

JSNM will take over the functionality of the Committee, including the management related to JIS standards based on JEITA standards.

Although JAIDA/JEITA Standards will be abolished, the documents will be available on JEITA website for 10 years in future. JSNM will also put them on its website with JEITA's agreement. JAITA also transfers JSNM their standard specimens used for standardization.

JSNM Material Standards Study Group for Semiconductor Supply-Chain(M4S) will be established on April 1, 2016 to take over JETTA Silicon Wafer Technology Committee. It aims to establish JSNM semiconductor related standards, and want to have good relation with SEMI, and SEMI liaison position at this Study Group will be discussed by the Study Group after its establishment.

Attachment: None
6 Ballot Review

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Attachment: 5975_Ballot report_2016.03.11a

7 Subcommittee & Task Force Reports

7.1 International 450mm Shipping Box Task Force / JA Shipping Box Task Force

Shoji Komatsu reported for the International 450mm Shipping Box Task Force / JA Shipping Box Task Force. Of note:

- See the attachment with respect to other activities. Please see the attached report.

Attachment: 450mm SB-TF_Report_160311a

7.2 International Advanced Wafer Geometry Task Force / Japan AWG Task Force

Masanori Yoshise reported for the International Advanced Wafer Geometry Task Force / the Japan AWG Task Force. Please see the attachment for details.

Attachment: AWG TF Report 160311

7.3 International Epitaxial Wafers Task Force

There was no meeting and no particular report.

7.4 International Annealed Wafers Task Force

There was no meeting and no particular report.

7.5 International Terminology Task Force

There was no meeting and no particular report.

7.6 International SOI Wafers Task Force

There was no meeting and no particular report.
7.7 International Test Method Task Force / Japan Test Method Task Force

Ryuji Takeda reported for the International Test Method Task Force.

- Doc5737A for Cycle4, it will be reviewed at SEMICON West Meeting in July.
  - M by Takeda S by Nakai,
  - Vote: 6/0 Motion passed.

Motion: To submit Doc.5737A as shown to Cycle 4

By / 2nd: Ryuji Takeda (GWJ)/ Testuya Nakai (SUMCO)

Discussion: Review will be held during SEMICON West 2016 in San Francisco

Vote: 6/0 in favor and 0 opposed. Motion passed.

Attachment: Doc_5737A_rev1_1_JV

Meeting Agenda of Japan Test Method TF on Mar 9th 2016_v0

7.8 International Advanced Surface Inspection Task Force

Junko Collins on behalf of Masami Ikota reported for the International Advanced Surface Inspection Task Force. Of note,

- The Global TC Members two weeks review of Revision of SEMI MF1811-xx1y GUIDE FOR ESTIMATING THE POWER SPECTRAL DENSITY FUNCTION AND RELATED FINISH PARAMETERS FROM SURFACE PROFILE DATA was done.
- It will be submitted to Cycle 4 to review the document at the NA TC chapter meeting in July 2016.
- Due to this document is Guide, “must” should be changed to “should”

7.9 International Polished Wafer Task Force / International 450mm Wafer Task Force

There is no special report.

7.10 Fiducial Mark Interoperability Task Force

Tetsuya Nakai reported for the Fiducial Mark Interoperability Task Force. See the details in the attachment.

- The task force will be disbanded if no necessary to develop standards for backend-area.

Attachment: 20160224FMI-TF-Report_r1

7.11 TC Chapter Project

The following items are reviewed at the meeting.

- 3-year Project Period
  No documents to be expanded the project period.
- Consideration of 5-year review
  SEMI M26-0304 (Reapproved 1110) and SEMI M29-1296 (Reapproved 1110) will be discussed by the task force.
8  Old Business

8.1 Previous Meeting Action Items

Junko Collins reviewed the previous meeting action items.

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Motion: To approve revised SNARF 5911 “Line Item Revision of SEMI M62-0515, Specifications for Silicon Epitaxial Wafers” to major revision, “Revision of SEMI M62-0515, Specifications for Silicon Epitaxial Wafers”.

By / 2nd: Naoshisa Toda (SHE)/ Ryuji Takeda (GWJ)

Discussion: Two weeks Global TC members review has been done

Vote: 6 in favor and 0 opposed. Motion passed.

Motion: To approve the SNARF for Revision of SEMI MF1811-xx1y GUIDE FOR ESTIMATING THE POWER SPECTRAL DENSITY FUNCTION AND RELATED FINISH PARAMETERS FROM SURFACE PROFILE DATA

By / 2nd: Tetsuya Nakai (SUMCO)/ Ryuji Takeda (GWJ)

Discussion: Two weeks Global TC members review has been done

Vote: 6 in favor and 0 opposed. Motion passed.

9  New Business

No new business

10  Action Item Review

10.1 New Action Items

Junko Collins 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 Chapter of Global Silicon Wafer Technical Committee is scheduled for Friday June 10 2016, 13:30-17:00, SEMI Japan, Tokyo Japan

Having no further business, a motion was made to adjourn the Japan Chapter of Global Silicon Wafer Technical Committee meeting on March 11 in conjunction with the Japan Standards Spring Meeting. Adjournment was at 16:00.
Minutes respectfully submitted by:
Junko Collins
Director, Standards & EHS
SEMI Japan
jcollins@semi.org

Minutes approved by:

<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Naoyuki Kawai (The University of Tokyo), Co-chair</td>
<td></td>
</tr>
<tr>
<td>Tetsuya Nakai (SUMCO), Co-chair</td>
<td></td>
</tr>
</tbody>
</table>

#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 Junko Collins at the contact information above.