Japan TC Chapter of
Physical Interfaces & Carriers Global Technical Committee
Meeting Summary and Minutes

Japan Standards Spring 2015 Meetings
Wednesday, April 15, 2015, 1:30 p.m. – 4:40 p.m.
SEMI Japan office, Tokyo, Japan

Next Committee Meeting
Thursday, July 30, 2015, 1:30 p.m. – 5:00 p.m. <Japan Standard Time>
Japan Standards Summer 2015 Meetings
SEMI Japan office, Tokyo, Japan

Committee Announcements (optional)
None

Table 1 Meeting Attendees
* Italics indicate virtual participants
Co-Chairs: Tsuyoshi Nagashima (Miraial), Tsutomu Okabe (TDK), Kenji Yamagata (Daifuku)
SEMI Staff: Chie Yanagisawa (SEMI Japan)
Attendee: 14 + SEMI: 1

<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>Acteon</td>
<td>Komatsu</td>
<td>Shoji</td>
<td>Nihon Entegris</td>
<td>Fukunaga</td>
<td>Tsukasa</td>
</tr>
<tr>
<td>Daifuku</td>
<td>Yamagata</td>
<td>Kenji</td>
<td>Sinfonia Technology</td>
<td>Otani</td>
<td>Mikio</td>
</tr>
<tr>
<td>Kumai Consulting</td>
<td>Kumai</td>
<td>Sadao</td>
<td>SUMCO</td>
<td>Nakai</td>
<td>Tetsuya</td>
</tr>
<tr>
<td>GUDENG</td>
<td>Lu</td>
<td>Leo</td>
<td>TDK</td>
<td>Okabe</td>
<td>Tsutomu</td>
</tr>
<tr>
<td>GUDENG</td>
<td>Ondieki</td>
<td>Kennedy G., Tokyo Electron</td>
<td>Kobayashi</td>
<td>Sensho</td>
<td></td>
</tr>
<tr>
<td>Hitachi Kokusai Electric</td>
<td>Matsuda</td>
<td>Mitsuhiro</td>
<td>Tokyo Electron</td>
<td>Mashiro</td>
<td>Supika</td>
</tr>
<tr>
<td>Miraial</td>
<td>Nagashima</td>
<td>Tsuyoshi</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murata Machinery</td>
<td>Murata</td>
<td>Masanori</td>
<td>SEMI Japan</td>
<td>Yanagisawa</td>
<td>Chie</td>
</tr>
</tbody>
</table>

* alphabetical order by company name

Table 2 Leadership Changes
None

Table 3 Ballot Results (or move to Section 4, Ballot Review)
None

Table 4 Authorized Ballots (or move to Section 7, New Business)

<table>
<thead>
<tr>
<th>#</th>
<th>When</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>5869</td>
<td>Cycle 5-2015</td>
<td>Global PIC</td>
<td>Line Item Revision to SEMI E84-1109, Specification for Enhanced Carrier Handoff</td>
</tr>
<tr>
<td></td>
<td>Maintenance TF</td>
<td>Maintenance TF</td>
<td>Parallel I/O Interface</td>
</tr>
</tbody>
</table>

* Ballot #5869 submission was approved at the NA PIC TC Chapter meeting on April 1, 2015. As SEMI E84 was originated from Japan region, however, the decision should have been made by JA PIC TC Chapter with additional GCS Agreement per P.M. 2.7.1.2.3.1. Accordingly, the Japan PIC TC Chapter made a decision to authorize this ballot submission at the Japan PIC TC Chapter meeting on April 15, 2015.

Table 5 Authorized Activities (or move to Section 7, New Business)
None
Table 6 New Action Items (or move to Section 8, Action Item Review)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>150415-1</td>
<td>SEMI Staff</td>
<td>To get SEMI NA Staff send out the email to PIC GCS members reporting the three SNARFs, #5867 (Line item revision to SEMI E21-94 (Reapproved 0309), with title change to: Specification for Cluster Tool Module Interface: Mechanical Interface and Wafer Transport), #5868 (Line item revision to SEMI E22-0697 (Reapproved 0309), with title change to: Specification for Cluster Tool Module Interface: Transport Module End Effector Exclusion Volume), #5869 (Line Item Revision to SEMI E84-1109, Specification for Enhanced Carrier Handoff Parallel I/O Interface), proposed by Global PIC Maintenance TF were approved at the NA TC Chapter meeting on April 1, 2015 per Procedure Manual ¶6.4.6.4.3.</td>
</tr>
<tr>
<td>150415-2</td>
<td>SEMI Staff</td>
<td>To send the email to PIC GCS members to ask for their agreement of Ballot #5869 (Line Item Revision to SEMI E84-1109) submission for Cycle 5-2015 due to the Japan TC Chapter’s authorization of the ballot submission at the Japan PIC TC Chapter meeting on April 15, 2015.</td>
</tr>
<tr>
<td>150415-3</td>
<td>Supika Mashiro</td>
<td>To get approval disbandment of IPPI TF from EU TC Chapter.</td>
</tr>
</tbody>
</table>

Table 7 Previous Meeting Actions Items (or move to Section 8, Action Item Review)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>141204-1</td>
<td>SEMI Staff</td>
<td>To convey the message that Japan PIC members would ask to change the week of the North America Standards Spring meeting from the end of March to as least one week earlier or one week later in order that Japan members would be available to attend the meetings in person because fiscal year ends March at most of the companies in Japan.</td>
</tr>
</tbody>
</table>

1 Welcome, Reminders, and Introductions

Tsuyoshi Nagashima (Miral), co-chair, called the meeting to order at 2:00 p.m. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

2 Review of Previous Meeting Minutes

The committee reviewed the minutes of the previous meeting.

Motion: Approve the previous meeting minutes as written
By / 2nd: Kenji Yamagata (DAIFUKU) / Sensho Kobayashi (Tokyo Electron)
Discussion: None
Vote: 7 in favor and 0 opposed. Motion passed.

3 Liaison Reports

3.1 Europe TC Chapter of PI&C Global Technical Committee

Chie Yanagisawa (SEMI Japan) reported there was no report from the Europe TC Chapter of Global Technical Committee.

3.2 North America TC Chapter of PI&C Global Technical Committee

Tsuyoshi Nagashima (Miral) reported for the North America TC Chapter of PI&C Global Technical Committee as attached.

Attachment: 01 NA PIC Report Spring 2015 MT
3.3 SEMI Staff Report

Chie Yanagisawa (SEMI Japan) gave the SEMI Staff Report as attached.

Attachment: 02_SEMI Staff Report 2015 April R0.4a, 03_Regs_SC_to_JRSC2015_0416_rev0.2

4 Ballot Review

None

5 Subcommittee & Task Force Reports

5.1 Global PIC Standards Maintenance Task Force

Shoji Komatsu, co-leader, reported for Global PIC Maintenance Task Force. Of note:

- The activity is included in the NA TC Chapter liaison report. SNARF #5869 (Line Item Revision to SEMI E84-1109) and #5869 ballot submission were approved at the NA TC Chapter meeting on April 1, 2015.
- According to the NA TC Chapter liaison report, the three SNARFs, #5867, #5868, #5869, proposed by Global PIC Maintenance TF were approved at the NA TC Chapter meeting on April 1, 2015. So, the global TF must report the approval of those SNARFs per P.M. 6.4.6.4.3.
  
  - #5867 (Line item revision to SEMI E21-94 (Reapproved 0309), with title change to: Specification for Cluster Tool Module Interface: Mechanical Interface and Wafer Transport),
  - #5868 (Line item revision to SEMI E22-0697 (Reapproved 0309), with title change to: Specification for Cluster Tool Module Interface: Transport Module End Effector Exclusion Volume),
  - #5869 (Line Item Revision to SEMI E84-1109, Specification for Enhanced Carrier Handoff Parallel I/O Interface)

“6.4.6.4.3 The global TF, in addition to its normal duties, must report the following items in the consensus process to the GCS:

- establishment of a global TF and submission of a SNARF,
- decision on TC Chapter where the Letter Ballot will be reviewed,
- approval for Letter Ballot submission by the TC Chapter, and
- results of Letter Ballot discussion.”

Action Item 1: SEMI Japan Staff to get SEMI NA Staff send out the email to PIC GCS members reporting the three SNARFs, #5867, #5868, #5869, proposed by Global PIC Maintenance TF were approved at the NA TC Chapter meeting on April 1, 2015 per Procedure Manual ¶6.4.6.4.3.

Supika Mashiro (Tokyo Electron) stated that, as SEMI E84 was originated from Japan region, however, the decision should have been made by JA PIC TC Chapter with additional GCS Agreement per P.M. 2.7.1.2.3.1. Accordingly, the Japan PIC TC Chapter made a decision to authorize this ballot submission at the Japan PIC TC Chapter meeting on April 15, 2015.

Motion: Approve Ballot #5869 (Line Item Revision to SEMI E84-1109: Specification for Enhanced Carrier Handoff Parallel I/O Interface) to be submitted for Cycle 5-2015

By / 2nd: Shoji Komatsu (Acteon) / Kenji Yamagata (DAIFUKU)

Discussion: None

Vote: 8 in favor and 0 opposed. Motion passed.

Action Item 2: SEMI Japan staff to send the email to PIC GCS members to ask for their agreement of Ballot #5869 (Line Item Revision to SEMI E84-1109) submission for Cycle 5-2015 due to the Japan TC Chapter’s authorization of the ballot submission at the Japan PIC TC Chapter meeting on April 15, 2015.
Supika Mashiro mentioned that this GCS voting message should be with the explanation that although this fails to follow the right procedure per P.M. ¶2.7.1.2.3.1 the PIC TC Chapter in Japan region authorizes this letter ballot as agreed by the PIC GCS.

“2.7.1.2.3.1 When the Originating Region or Locale Is Obvious — When a Draft Document originated by a global TF is the clear responsibility of a particular TC Chapter in a Region or Locale, as agreed by the responsible GCS, the TC Chapter in that Region or Locale authorizes the Letter Ballot.”

5.2 International 450 mm Physical Interfaces & Carriers (IPIC) Task Force

Shoji Komatsu (Acteon) reported for the task force as attached. Of note:

- ITG input
- Move KC chapter to E154(LP)

**Attachment:** 04_450mmIPIC-TF_Report_150415, 05_Attachment-to-450mmIPIC-TF_Report_150415

5.3 International Process Module Physical Interface (IPPI) Task Force

The document worked by this task force was published. The disbandment could be proposed.

<table>
<thead>
<tr>
<th>Motion:</th>
<th>Approve disbandment of IPPI TF, pending EU Chapter agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>By / 2nd:</td>
<td>Supika Mashiro (Tokyo Electron) / Tsutomu Okabe (TDK)</td>
</tr>
<tr>
<td>Discussion:</td>
<td>None</td>
</tr>
<tr>
<td>Note:</td>
<td>7 in favor and 0 opposed. Motion passed.</td>
</tr>
</tbody>
</table>

**Action Item 3:** Supika Mashiro to get approval disbandment of IPPI TF from EU TC Chapter.

5.4 Int'l Reticle SMIF Pod & Load Port Interoperability Task Force

No report was made.

5.5 450 mm AMHS Task Force

Kenji Yamagata (DAIFUKU) reported for the task force as attached.

**Attachment:** 06_20150415 JA 450mm AMHS TF Report R0.0(E)

5.6 Fiducial Mark Interoperability Task Force

Mitsuhiro Matsuda (Hitachi Kokusai Electric) reported for the task force as attached. Of note:

- Ballot #5752 (Revision to SEMI T7) passed with editorial change at the Japan TC Chapter of Traceability Global Technical Committee on December 5, 2014.

**Attachment:** 07_20150413FMI-TF-Report_r0

5.7 International 450mm Shipping Box Task Force and JA Shipping Box Task Force (under Silicon Wafer Global Technical Committee)

Tsuyoshi Nagashima (Mirial) reported for those two task forces as attached. Of note:

- Rework the 450 FOSB(M80) Ballot and New SNARF
- 450mm Wafer Shipping System(Doc.5069B)

**Attachment:** 08_450mm SB-TF_Report_150415

5.8 International 450mm related activities under Silicon Wafer Global Technical Committee

Tetsuya Nakai (SUMCO) reported for the 450mm related activities under Silicon Wafer Global Technical Committee as attached. Of note:

Tsuyoshi Nagashima (Mirial) mentioned the report was included at the section 5.7 above.
6 Old Business

6.1 Proposal of Submission of Ballot 5524A for Cycle 5

The submission of Ballot 5524A (Revision to SEMI E156) was approved for Cycle 4-2015 at the Japan TC Chapter meeting on December 4, 2014. Kenji Yamagata proposed the change of the Cycle to Cycle 5-2015 for the ballot submission.

7 New Business

None

8 Action Item Review

8.1 Open Action Items

None

8.2 New Action Items

Chie Yanagisawa (SEMI Japan) reviewed the new action item. This can be found in the New Action Items table at the beginning of these minutes.

9 Next Meeting and Adjournment

The next meeting of the Japan TC Chapter of PI&C Global Technical Committee is scheduled for Wednesday, July 30, 1:30 p.m. – 5:00 p.m. at Japan Standards Summer 2015 Meetings at SEMI Japan office in Tokyo.
Respectfully submitted by:
Chie Yanagisawa
Senior Standard Coordinator
SEMI Japan
Phone: +81.3.3222.5863
Email: cyanagisawa@semi.org

Minutes approved by:
Tsuyoshi Nagashima (Miraial), Co-chair
June 26, 2015
Tsutomu Okabe (TDK), Co-chair
June 26, 2015
Kenji Yamagata (DAIFUKU), Co-chair
June 26, 2015

Table 8 Index of Available Attachments #1

<table>
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<tr>
<th>#</th>
<th>Title</th>
<th>#</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>NA PIC Report Spring 2015 MT</td>
<td>05</td>
<td>Attachment-to-450mmIPIC-TF_Report_150415</td>
</tr>
<tr>
<td>02</td>
<td>SEMI Staff Report 2015 April R0.4a</td>
<td>06</td>
<td>20150415 JA 450mm AMHS TF Report R0.0(E)</td>
</tr>
<tr>
<td>03</td>
<td>Regs_SC_to_JRSC2015_0416_rev0.2</td>
<td>07</td>
<td>20150413FMI-TF-Report_r0</td>
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<tr>
<td>04</td>
<td>450mmIPIC-TF_Report_150415</td>
<td>08</td>
<td>450mm SB-TF_Report_150415</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 [SEMI Staff Name] at the contact information above.