Japan PV Automation Committee
Meeting Summary and Minutes

Japan Standards Spring 2014 Meetings
Conference Room 1, SEMI Japan Office, Tokyo, Japan

Next Committee Meeting
Friday, June 27, 2014, 13:30-15:30 <Japan Time>
Japan Standards Summer 2014 Meetings, Tokyo, Japan

Committee Announcements (optional)
None

**Table 1 Meeting Attendees**
*Italics indicates virtual participants*

<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>Atelier Ishikawa</td>
<td>Ishikawa</td>
<td>Emi</td>
<td>Nisshinbo Mechatronics</td>
<td>Ishikawa</td>
<td>Makoto</td>
</tr>
<tr>
<td>Hitachi Kokusai Electric</td>
<td>Matsuda</td>
<td>Mitsuhiro</td>
<td>Tokyo Electron</td>
<td>Asakawa</td>
<td>Terry</td>
</tr>
<tr>
<td>Mitsubishi Electric</td>
<td>Ito</td>
<td>Naoki</td>
<td>Tokyo Electron</td>
<td>Murakami</td>
<td>Takashi</td>
</tr>
<tr>
<td>Mitsubishi Electric</td>
<td>Yutani</td>
<td>Takashi</td>
<td>Tokyo Electron</td>
<td>Murata</td>
<td>Naoko</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>5697</td>
<td>Cycle 3-14</td>
<td>PV EIS TF</td>
<td>Line Item Revisions to SEMI PV35-0114, Specification for Horizontal Communication between Equipment for Photovoltaic Fabrication System</td>
</tr>
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<td>5698</td>
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**Table 5 Authorized Activities (or move to Section 7, New Business)**

<table>
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<tr>
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<td>PV EIS TF</td>
<td>Line Item Revisions to SEMI PV35-0114, Specification for Horizontal Communication between Equipment for Photovoltaic Fabrication System</td>
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Note: SNARFs and TFOFs are available for review on the SEMI Web site at: [http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF](http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF)
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>20140307-1</td>
<td>Makoto Ishikawa and Takashi Yutani</td>
<td>To prepare the Committee Charter and Scope for committees transformation by the end of March 2014</td>
</tr>
<tr>
<td>20140307-2</td>
<td>Terry Asakawa and Takashi Murakami</td>
<td>To discuss on committee transformation with EU Chapter of Global PV Automation Committee on by the end of March 2014</td>
</tr>
<tr>
<td>20140307-3</td>
<td>Terry Asakawa and SEMI Staff</td>
<td>To negotiate concerning committee transformation with SEMI HQ at NA Spring Meeting 2014</td>
</tr>
</tbody>
</table>

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

None

1 Welcome, Reminders, and Introductions

Makoto Ishikawa (Nisshinbo Mechatronics) called the meeting to order at 13:30. 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: To approve the minutes of the previous meeting with modifying to add Makoto Ishikawa (Nisshinbo Mechatronics) to the Table 1 Meeting Attendees.

By / 2nd: Mitsuhiro Matsuda (Hitachi Kokusai Electric) / Naoko Murata (Tokyo Electron)

Discussion: None

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

Attachment: 01, Meeting-Minutes_Japan-PVAuto_131024_Final

3 SEMI Staff Report

Chie Yanagisawa (SEMI Japan) gave the SEMI Staff Report. Of note:

- Global SEMI Events
- Global Standards Meetings Schedule
- Ballot Critical Dates
- Publication Update
- Contact Information

Attachment: 02, SEMI Staff Report 2014 Mar._R0.3a

4 Liaison Reports

4.1 Europe PV Automation Committee

Chie Yanagisawa (SEMI Japan) reported for the Europe PV Automation Committee. Of note:

- Leadership and Committee Organization Chart
- Meeting Information
- Upcoming Ballot

- The title has been changed.

Takashi Murakami pointed out that the actual title of ballot #5153 at Cycle 1-2014 was “New Standard: Data Definition Specification for a Horizontal Communication Between Equipment for Photovoltaic Fabrication System”.

(At a later date, Chie Yanagisawa (SEMI Japan) confirmed the official title of the SNARF #5153 was still “New Subordinate Standard: Data Definition specifications for a Horizontal Communication between equipment for crystalline photovoltaic fabrication system” and nothing concerned to the title change of #5153 was not recorded in the minutes of EU Chapter meeting of PV Automation TC held on October 7, 2013, which the ballot #5153 submission was approved at. )

Doc 5566: Line Item Revision to SEMI PV2-0709E “Guide for PV Equipment Communication Interfaces (PVECI)”, modify requirement [PV02-RQ-00007-00] to allow implementation of new namelist requests instead of required documentation.

- Postponed until E30 IP issue resolved.

Task Force Updates

Terry Asakawa pointed out that it was important for the PV Wafer Traceability Task Force to publicize its activity and get China PV Committee to draw attention to it, and also SEMI should activate it by leading this communication.

Attachment: 03, EU PV Automation Liaison Report Updated 20131021 v1

4.2 China PV Committee

Chie Yanagisawa (SEMI Japan) reported for the China PV Committee. Of note:

- Leadership and Committee Organization Chart
- Meeting Information
- Task Force Updates

Attachment: 04, China Photovoltaic Committee Liaison Report20131125

5 Ballot Review

None

6 Subcommittee & Task Force Reports

6.1 PV Equipment I/F Specification Task Force

Takashi Murakami (Tokyo Electron) reported for the PV Equipment I/F Specification Task Force. This report contained information on the items as follows.

- TF Operation
- TF Activities
  - Two New SNARFs to be proposed at the New Business Section later in the agenda.

Attachment: 05, JA_PV_EIS_TF_StatusReport20140307r1.0

7 Old Business

None
8 New Business

8.1 Proposal of New SNARFs for approval

Takashi Murakami, the task force co-leader, addressed the committee on the proposal of the two new SNARFs for approval as follows.

<table>
<thead>
<tr>
<th>Motion:</th>
<th>To approve the new SNARF: Line Item Revisions to SEMI PV35-0114, Specification for Horizontal Communication between Equipment for Photovoltaic Fabrication System</th>
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<td>By / 2nd:</td>
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8.2 Proposal of Ballots Submission for approval

Takashi Murakami, the task force co-leader, addressed the committee on the proposal of the two ballots submission for approval as follows.

<table>
<thead>
<tr>
<th>Motion:</th>
<th>To approve the submission for Cycle 3-2014 of the ballot: Line Item Revisions to SEMI PV35-0114, Specification for Horizontal Communication between Equipment for Photovoltaic Fabrication System</th>
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<td>Discussion:</td>
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8.3 Committee Transformation

Terry Asakawa addressed the committee on this topic with explaining as below.

- PV Automation activity is in very difficult situation.
  - Overall PV industry is not good
  - SEMI has already quit from PV Business
  - No end user participation as the end user doesn’t care about automation technologies so much as long as it works (Inappropriate industry tier assignment to standard activities. The reason is the next item)
  - Most of the automation requirements are not so business specific but generic, and assigning a committee to every area such as PV, FPD, HB-LED does not make sense (distributes interests and resources)
  - As a result, most of the members were faded out
- On the other hand, PV02, PV35, and PV35.1 developed by PV Automation Committee have been a topic in factory automation technology area that they are generic and applicable not only to PV but also to other
industries such as FPD, LED, battery etc. And, for automation suppliers such as PLC suppliers, the existence of the prefix “PV” is a barrier to expand the application of these standards.

- Also, these areas are hard to be covered by Information & Control Technical Committee which is very specific to complex Semiconductor factory with rich specifications.

- So, Terry Asakawa made a motion and Japan Chapter members agreed as above on the difficulties to continue the activities within the current scheme, and decided to move toward committee transformation which addresses:
  - Transfer current activities to a committee which covers “Factory Automation Technology” more generic manner (Either rename current PV Automation Committee or disband PV Automation Committee and form a new one such as “Factory Automation Technology Committee”)
  - Change “user - supplier” relationship from “PV user – PV equipment and Automation supplier” to “Equipment and Automation integrator – Automation component supplier”
  - Rename of PV Automation standards already developed from PVnn to other generic number such as FAnn

**Motion:** To start preparation activity which extends Japan PV Automation Committee Scope to generic Factory Automation Technology and transforms the committee accordingly.

**By / 2nd:** Terry Asakawa (Tokyo Electron) / Mitsuhiro Matsuda (Hitachi Kokusai Electric)

**Discussion:** Following Actions should be taken by North America Standards Spring 2014 Meetings.

1. to prepare Committee Charter / Scope
2. to discuss with EU Chapter of Global PV Automation Committee
3. to negotiate with SEMI Action Plan
   1. Makoto Ishikawa and Takashi Yutani
   2. Terry Asakawa and Takashi Murakami
   3. By the end of March
   4. Terry Asakawa and SEMI Staff at NA Spring Meeting 2014

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

9 **Action Item Review**

9.1 **Open Action Items**

None

9.2 **New Action Items**

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

10 **Next Meeting and Adjournment**

The next meeting of the Japan PV Automation TC Chapter is scheduled for Friday, June 27, 2014 at Japan Standards Summer Meetings in Tokyo.
Respectfully submitted by:
Chie Yanagisawa
Sr. Standards Coordinator
SEMI Japan
Phone: +81.3.3222.5863
Email: cyanagisawa@semi.org

Minutes approved by:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terry Asakawa (Tokyo Electron)</td>
<td>Co-chair</td>
<td>June 27, 2014</td>
</tr>
<tr>
<td>Makoto Ishikawa (Nisshinbo Mechatronics)</td>
<td>Co-chair</td>
<td>June 27, 2014</td>
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</table>

Table 8 Index of Available Attachments

<table>
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<tr>
<th>#</th>
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<tr>
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<td>China Photovoltaic Committee Liaison Report20131125</td>
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<td>02</td>
<td>SEMI Staff Report 2014 Mar._R0.3a</td>
<td>05</td>
<td>JA_PV_EIS_TF_StatusReport20140307r1.0</td>
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<tr>
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<td>EU PV Automation Liaison Report Updated 20131021 v1</td>
<td></td>
<td></td>
</tr>
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</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.