Physical Interfaces & Carriers North America TC Chapter

Meeting Summary and Minutes

SEMICON West 2016 Meetings
Wednesday, July 13, 2016, 09:00 – 12:00 Pacific Time
SF Marriott Marquis in San Francisco, California

TC Chapter Announcements

Next TC Chapter Meeting

NA Standards Fall 2016 Meetings
November 9, 2016, 09:00 – 12:00 Pacific Time
SEMI Headquarters in San Jose, California

Table 1 Meeting Attendees

*Italicics* indicate virtual participants

**Co-Chairs:** Matt Fuller (Entegris), Stefan Radloff (Intel)

**SEMI Staff:** Laura Nguyen

<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>Intel</td>
<td>Quinn</td>
<td>Thomas</td>
</tr>
<tr>
<td>Alan Crockett</td>
<td>Crockett</td>
<td>Alan</td>
<td>Murata Machinery</td>
<td>Tadamasa</td>
<td>Tominaga</td>
</tr>
<tr>
<td>Bay-Tech Resor</td>
<td>Baylies</td>
<td>Winthrop</td>
<td>Murata Machinery</td>
<td>KUCHIY</td>
<td>Masami</td>
</tr>
<tr>
<td>Brooks Automation</td>
<td>Babbs</td>
<td>Daniel</td>
<td>Shin-Etsu Polymer</td>
<td>HIROYUKI</td>
<td>Shida</td>
</tr>
<tr>
<td>Daifuku</td>
<td>Yamagata</td>
<td>Kenji</td>
<td>SUMCO Corporation</td>
<td>Nakai</td>
<td>Tetsuya</td>
</tr>
<tr>
<td>Entegris</td>
<td>Fuller</td>
<td>Matthew</td>
<td>TEL</td>
<td>Mashiro</td>
<td>Supika</td>
</tr>
<tr>
<td>Global 450mm Consortium</td>
<td>Christal</td>
<td>Lorn</td>
<td>U.A. Associates</td>
<td>Hartsough</td>
<td>Larry</td>
</tr>
<tr>
<td>Global Foundries</td>
<td>Rothe</td>
<td>Jan</td>
<td>Yamamoto</td>
<td>Yamamoto</td>
<td>Makoto</td>
</tr>
<tr>
<td>Intel</td>
<td>Radloff</td>
<td>Stefan</td>
<td>SEMI Japan</td>
<td>Yanagisawa</td>
<td>Chic</td>
</tr>
<tr>
<td>Intel</td>
<td>Jung</td>
<td>Melvin</td>
<td>SEMI</td>
<td>Nguyen</td>
<td>Laura</td>
</tr>
</tbody>
</table>

Table 2 Leadership Changes

<table>
<thead>
<tr>
<th>Group</th>
<th>Previous Leader</th>
<th>New Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIC NA Cochair</td>
<td>Stefan Radloff</td>
<td>Melvin Jung – pending NARSC approval</td>
</tr>
</tbody>
</table>

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>5817A</td>
<td>Revision to SEMI E72-0600 (Reapproved 0305), Specification and Guide for 300 mm</td>
<td>Passed, as balloted</td>
</tr>
<tr>
<td></td>
<td>Equipment Footprint, Height, and Weight with title change to: Specification and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guide for Equipment Footprint, Height, and Weight</td>
<td></td>
</tr>
<tr>
<td>5941</td>
<td>Line Item Revision to Add Related Information 2 to SEMI E111 and References to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEMI E112, E117, E19</td>
<td></td>
</tr>
<tr>
<td>Line Item 1</td>
<td>Add the following Related Information 2 section to SEMI E111</td>
<td>Failed</td>
</tr>
</tbody>
</table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Line Item 2</td>
<td>Add the reference to E111 in section 5.1 and Related Information 2 section in SEMI E19</td>
<td>Failed</td>
</tr>
<tr>
<td>Line Item 3</td>
<td>Add the reference to E111 in section 3.1 and Related Information 2 section in SEMI E112</td>
<td>Failed</td>
</tr>
<tr>
<td>Line Item 4</td>
<td>Add the following Related Information 2 section to SEMI E117</td>
<td>Failed</td>
</tr>
<tr>
<td></td>
<td>Addition of Related Information 2 to SEMI E111 and References to SEMI E112, E117, E19</td>
<td>Approve as editorial changes</td>
</tr>
</tbody>
</table>

Table 4 Authorized Activities

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>6053</td>
<td>SNARF</td>
<td>Global PIC</td>
<td>Line Item revisions for modifying the titles of SEMI E19, SEMI E19.1-E19.4 to conform with SEMI Standards regulations</td>
</tr>
<tr>
<td>6051</td>
<td>SNARF</td>
<td>Global PIC</td>
<td>Line Item revisions for modifying the titles of SEMI E111 to conform with SEMI Standards regulations</td>
</tr>
<tr>
<td>6052</td>
<td>SNARF</td>
<td>Global PIC</td>
<td>Line Item revisions for modifying the titles of SEMI E112 to conform with SEMI Standards regulations</td>
</tr>
</tbody>
</table>

NOTE 1: 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 5 Authorized Ballots

<table>
<thead>
<tr>
<th>#</th>
<th>When</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>6053</td>
<td>Cycle 7, 2016</td>
<td>Global PIC</td>
<td>Line Item Revisions to modifying the titles of SEMI E19, SEMI E19.1-E19.4 to conform with SEMI Standards Regulations</td>
</tr>
<tr>
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<tr>
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<td>Cycle 7, 2016</td>
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</tr>
</tbody>
</table>

Table 6 New Action Items

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016July#01</td>
<td>Larry Hartsough</td>
<td>Send PIP form for Doc 5817A to address the accept comment. CLOSED.</td>
</tr>
<tr>
<td>2016July#02</td>
<td>Laura Nguyen</td>
<td>Email Larry ballot results for Doc 5869A and Larry to email negative voters to request their participation</td>
</tr>
<tr>
<td>2016July#03</td>
<td>Stefan Radloff</td>
<td>Submit ISC RSC inactive proposal with background information. CLOSED.</td>
</tr>
<tr>
<td>2016July#04</td>
<td>Stefan Radloff</td>
<td>Email proposal of nominee and resignation to James Amano and copy Laura.</td>
</tr>
</tbody>
</table>

Table 7 Previous Meeting Action Items

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015Nov#05</td>
<td>Jan Rothe</td>
<td>Follow up on next steps for Doc 5869A (E84)</td>
<td>Document failed, return to TF to find somebody interested in working on the document.</td>
</tr>
</tbody>
</table>
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<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016April#01</td>
<td>Matt Fuller</td>
<td>Follow up with Komatsu-san to send out an invitation to committee and task force members to join in on this discussion (450 AUX doc).</td>
<td>On-going</td>
</tr>
<tr>
<td>2016April#02</td>
<td>Stefan Radloff</td>
<td>To draft a proposal to the RSC to clarify the definition of &quot;Inactive&quot; in the Regulations for West.</td>
<td>Closed.</td>
</tr>
</tbody>
</table>

1 Welcome, Reminders, and Introductions

Matthew Fuller called the meeting to order at 09:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: SEMI Standards Required Meeting Elements

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion:       To accept the previous meeting minutes as written.
By / 2nd:     Larry Hartsough (UA Associates) / Alan Crockett (Alan Crockett)
Discussion:   None.
Vote:         7-0 in favor. Motion passed.

Attachment:   [2016Spring] NA PIC Minutes FINAL

3 Liaison Reports

3.1 PIC Europe TC Chapter

Laura Nguyen (SEMI) reported for the PIC Europe TC Chapter. The key items were as follows:

- Leadership: A. Honold (InReCon), F. Petzold (Trustsec)
- Committee Organization [see attachment]
- Meeting Information
  - Last Meeting: Oct 7, 2015 – SEMICON Europa in Dresden, Germany
  - Next Meeting: Oct 25-27, 2016 - SEMICON Europa in Grenoble, France
- International Reticle SMIF Pod & Loadport Interoperability TF
  - The TF completed drafting of a ballot document
  - The TF submitted ballot document for cycle 5 2016
  - The ballot results will be discussed at the TF meeting at SEMICON West
- Next Europe PIC Meetings
  - Wednesday, October 26
  - Europe Joint PIC, I&C and Metrics TC Chapter Meeting (14:00 – 16:00 h)
    For meeting details, registration, the latest schedule, and travel information please visit http://www.semiconeuropa.org/node/3426
- Staff Contact: James Amano (jamano@semi.org)

Attachment: [2016West] Liaison Europe PIC July 2016
3.2 PIC Japan TC Chapter

Chie Yanagisawa (SEMI Japan) reported for the PIC Japan TC Chapter. The key items for the PIC Japan TC Chapter were as follows:

- Leadership
  - Committee Co-chairs: Tsuyoshi Nagashima (Miraial), Tsutomu Okabe (TDK), Kenji Yamagata (DAIFUKU)
  - Technical Architect: Shoji Komatsu (Acteon)
- Current Structure of Japan TC Chapter [See attachment]
- Meeting Information
  - Last meeting – Japan Spring 2016 Meetings, Thursday, April 14, 2016 13:30-17:00 at SEMI Japan office, Tokyo
  - Next meeting – Japan Summer 2016 Meetings, Thursday, July 28, 2016 13:30-17:00 at SEMI Japan office, Tokyo
- Doc Review Summary – Japan Standards Spring 2016 Meeting: Cycle 1
  - Doc 5869A, Line Item Revision to SEMI E84-1109, “Specification for Enhanced Carrier Handoff Parallel I/O Interface” – LI 1, Failed and Returned to the Task Force for Rework
- Task Force Updates
- Fiducial Mark Interoperability TF
  - The latest TF meeting on Nov. 18, 2015
  - T7 issues
    - SNARF 5890
      - Delete all position specifications from SEMI T7 because position specifications are also described on SEMI M1 and other related Silicon Standard.
    - Document 5890
      - Submitting to 2015 Cycle 7, passed with editorial changes at JA TC Chapter meeting of Traceability TC on Dec. 18, 2015, and passed A&R.
      - Published as SEMI T7–0516
    - Others
      - Assembly and Packaging: Discussing backend alignment issues with introducing fiducial mark wafer.
      - TF leaders to start discussion about disbanding this TF if the TF does not have further activity.
- Global PIC Standards Maintenance Task Force (JA Side)
  - #5869, Line Item Revision to SEMI E84-1109, “Specification For Enhanced Carrier Handoff Parallel I/O Interface”
    - Ballot was submitted for Cycle 1-2016
    - Rejects and comments was reviewed at the TF meeting during NA Standards Spring 2016 Meetings
    - Ballot result was reviewed at Japan TC Chapter meeting on April 14, 2016, and failed and returned to the TF for rework.
  - International 450 mm Physical Interfaces & Carriers Task Force (JA Side)
    - Issues related to a door closing have been raised from G450C.
      - ITG started the tests
    - To move KC chapter in SEMI E158 and E159 to SEMI E154 (Lord Port)
      - Waiting the next major revision for discussion, re-vote and volunteers.
    - SNARF #5974: New Auxiliary Information: “450mm PIC INTEROPERABILITY”
- Approved at the Japan TC Chapter meeting on December 16 in conjunction with 2015

- International Process Module Physical Interface (IPPI) TF (JA Side)
  - The document worked by this task force was published.
  - The disbandment of IPPI TF was approved, with pending the EU TC Chapter’s agreement, at the Japan TC Chapter meeting on April 15, 2015.
  - NA TC Chapter approved the disbandment of IPPI TF at the NA PIC TC Chapter meeting in conjunction with NA Standards Spring 2016 Meetings, so that the disbandment of this TF was completed.

- Staff Contact: Chie Yanagisawa (cyanagisawa@semi.org)

Attachment:  [2016West] Liaison PIC Japan

3.3 SEMI Staff Report

Laura Nguyen (SEMI) gave the SEMI Staff Report. The key items were as follows:

- SEMI Global 2016 Calendar of Events
  - SEMICON West (July 12-14, 2016, San Francisco, California)
  - SEMICON Taiwan (September 7-9, Taipei, Taiwan)
  - SEMICON Europa (October 25-27, Grenoble, France)
  - SEMICON Japan (December 14-16, Tokyo, Japan)

- Upcoming North America Standards Meetings
  - NA Standards Fall 2016 Meetings (November 7-10, 2016, SEMI HQ in San Jose, California)
  - NA Standards Spring 2016 Meetings (April 3-6 at SEMI HQ)
  - SEMICON West 2016 (July 10-13, 2016, San Francisco, California)

  - Fall 2016 adjudication
    - Cycle 6: ballot submission due: July 22/Voting Period: August 1 – September 1
    - Cycle 7: ballot submission due: August 17/Voting Period: August 31 – September 30
  - Spring 2017 adjudication

- Standards Publications Report

<table>
<thead>
<tr>
<th>Cycle</th>
<th>New</th>
<th>Revised</th>
<th>Reapproved</th>
<th>Withdrawn</th>
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<tr>
<td>December 2015</td>
<td>2</td>
<td>20</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>January 2016</td>
<td>0</td>
<td>8</td>
<td>10</td>
<td>0</td>
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<tr>
<td>February 2016</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>March 2016</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

- Total in portfolio – 964 (includes 141 Inactive Standards)

- New Requirements/Process Reminders for TC Chapter Meetings
  - Standards Document Development Project Period
    - Project period shall not exceed three years (Regulations ¶ 8.3.2).
    - SNARF approval to TC Chapter approval
- If Document development activity is found to be continuing, but cannot completed within the project period, TC Chapter may grant one-year extension at a time, as many times as necessary.
  
  o SNARF Review Period
    - A submitted SNARF for a new, or for a major revision to an existing, Standard or Safety Guideline is made available to all members of a TC Chapter’s parent global technical committee for two weeks for their review and comment. (Regulations ¶ 8.2.1).
      - If the SNARF is submitted at a TC Chapter meeting, the TC Chapter can review and approve, but the SNARF will need to be distributed for two weeks and then approved via GCS.
  
  o New SNARF & TFOF forms [embedded in Staff Report, see the attachments of these minutes]
  
  o Procedures for Correcting Nonconforming Titles of Published Standards Document (Procedure Manual Appendix 4)
    - Some Standards qualify for a special procedure where a line-item change can be used to correct the titles. Otherwise, the corrective action will likely require a major revision.
      - [See Attachment Slide 9 and 10 for full list]
  
  o PIC Standards needing Five-Year Review
    - [See Attachment Slide 11 and 12 for full list]
  
  o SNARF 3 Year Status
    - None
      - TC Chapter may grant a one-year extension

- Staff Contact: Laura Nguyen (lnguyen@semi.org)

Attachment: Staff Report June 2016 (PIC)

4 Ballot Review

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.

NOTE 2: 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.

4.1 Document 5817A, Revision to SEMI E72-0600 (Reapproved 0305), Specification and Guide for 300 mm Equipment Footprint, Height, and Weight with title change to: Specification and Guide for Equipment Footprint, Height, and Weight
  - The ballot passed as balloted. See attachment for ballot adjudication.

Attachment: Ballot 5817A A&R Forms -motions 2016071
Attachment: 5817AProceduralReview Ballot report for Doc 5817A

4.2 Document 5941, Line Item Revision to Add Related Information 2 to SEMI E111 and References to SEMI E112, E117, E19

4.2.1 Line Item #1: Add the following Related Information 2 section to SEMI E111
  - This Line Item failed committee review. See attachment for committee review.

4.2.2 Line Item #2: Add the reference to E111 in section 5.1 and Related Information 2 section in SEMI E19
  - This Line Item failed committee review. See attachment for committee review.

4.2.3 Line Item #3: Add the reference to E111 in section 3.1 and Related Information 2 section in SEMI E112
5 Subcommittee and Task Force Reports

5.1 International Reticle SMIF Pod and Load Port Task Force

Jan Rothe reported for the International Reticle SMIF Pod and Load Port Task Force. The key items were as follows:

- **Leadership:** Jan Rothe, GLOBALFOUNDRIES representing EU; No replacement of Ohyama san defined for Japan TF
- **Members:** 42 (18 companies: 2 IC makers, 5 pod suppliers, 4 load port suppliers, 5 equipment suppliers, 2 consultants)
- **Current Work Program**
  - TF Telecons preparing Ballot Document 5941 – adjudicated at Semicon West
    - ballot failed for procedural reasons due to non-confirming titles of main standards the related information was proposed to be added
  - This led to the creation of new SNARFs to correct titles of SEMI E19, E19.1-E19.4 as well as SEMI E111 and SEMI E112.
- **New Business**
  - TF does not intend to take up any other business after related information has been added to SEMI E111, E19, E112 and E117 - task for charter fulfilled:
    - 1. Charter: The task force will work on reticle SMIF pod and related LP standards to specify:
      - (1) Carrier Placement Sensing Pad locations, sizes and heights
      - (2) Info Pad for lockout features locations, sizes and
      - (3) Ports (e.g. used for purging) – locations, sizes
    - Furthermore, the task force will review the referenced documents of the LP and pod standards – a recent ballot comment has revealed missing or outdated references in the document.
    - It is the goal of the TF to make as small changes as possible to limit the impact of any of the changes for the industry. The intent is to affect future implementations, not existing implementations.
    - 2. Scope: The TF will work on the following documents: E100, E111, E112, E117, E19.3 to address the challenges described above.
    - To minimize impact to industry, TF will consider adding as appendices or RI sections as alternative to adding in main body.
    - Note that this does NOT include EUV reticle carriers.
- **Discussion**
  - TF plans to sunset at the Fall 2016 Meetings.

Motion: Motion to add related Information to E111, E19, E112, E117
By / 2nd: Jan Rothe (Global Foundries) / Alan Crockett (Alan Crockett)
Discussion: Reviewed Ballot Doc in TC meeting.
Vote: 10-0 in favor. Motion passed.
Attachment: 2016-07-13_RSP-LP-IO-TF_Material-for-PIC edits 20160713

5.2 Global PIC Maintenance Task Force

Larry Hartsough reported for the Global PIC Maintenance Task Force. The key items reported were as follows:
• Summary of meeting activity
  o Review of the three ballots failed at the NA PIC Spring meeting
    ▪ Doc. 5954, Reapproval of SEMI E15.1-0305 (Reapproved 1110) Specification for 300 mm Tool Load Port
    ▪ Doc. 5951, Reapproval of SEMI E100-1104 (Reapproved 0710) Specification for a Reticle SMIF Pod (RSP) Used to Transport and Store 6 Inch or 230 mm Reticles
    ▪ Doc. 5953, Reapproval of SEMI E131-0304 (Reapproved 0310) Specification for the Physical Interface of an Integrated Measurement Module (IMM) into 300 mm Tools Using Bolts-M
  o Discuss ballot and make recommendation for Doc. 5817A, revision to SEMI E72
  o Discuss JA PIC Spring meeting failure of Doc. 5869, Related Information for SEMI E84
  o Standards coming up for 5-year review
• Review of the three ballots failed at the NA PIC Spring 2016 meeting
  o TF decided to recommend no further support action at this time and let these Standards go Inactive.
  o Doc. 5954, E15.1
  o Doc. 5951, E100
  o Doc. 5953, E131
• Discuss ballot and make recommendation for Doc. 5817A, revision to SEMI E72
  o TF decided to recommend finding each negative not persuasive and pass the ballot.

Action Item: 2016July#01, Larry to send PIP form for Doc 5817A to address the accept comment.

• Discuss JA PIC Spring meeting failure of Doc. 5869, Related Information for SEMI E84
  o Awaiting further input from TF leader, Jan Rothe
  o Jan’s feedback
    ▪ A TF will try to find a solution that is not in conflict with the body of the document, and submit for later ballot
    ▪ Need to find expertise
    ▪ Larry to email the negative voters to request their participation

Action Item: 2016July#02, Laura to email Larry ballot results for Doc 5869A.

• Standards coming up for 5-year review
  o SEMI E1.9-1106E (Reapproved 0512) Mechanical Specification for Cassettes Used to Transport and Store 300 mm Wafers
  o SEMI E47.1-1106 (Reapproved 0512) Mechanical Specification for FOUPS Used to Transport and Store 300 mm Wafers
  o SEMI E62-1106 (Reapproved 0512) Specification for 300 mm Front-Opening Interface Mechanical Standard (FIMS)
  o SEMI E64-1105 (Reapproved 0512) Specification for 300 mm Cart to SEMI E15.1 Docking Interface Port
  o SEMI E119-0706 (Reapproved 0512) Mechanical Specification for Reduced-Pitch Front-Opening Box for Interfactory Transport of 300 mm Wafers
  o SEMI E144-0312 Specification for RF Air Interface Between RFID Tags in Carriers and RFID Readers in Semiconductor Production and Material Handling Equipment

Attachment: PIC MTF Report July 2016 edits 20160713

5.3 Int’l 450 mm PIC Task Force (IPIC TF)
Matt Fuller reported for the International 450 mm PIC Task Force in place of Shoji Komatsu. There is no report to report. The key item discussed was on the proposal for a 450AUX document. Some key items that revolved around the discussion are as follows:

- Matt: 10 areas that are being proposed by G450C for discussion
  - Maybe to document the lessons to be learned or has been learned
  - Could we reorganize some of the items?
  - Look at some of the titles and adjust anywhere that is needed
- Lorn: Maybe incorporate 300 mm AUX major headers to add more to the document
  - Some next steps is to change the template and cover all the action items that came out of the document.
  - Who will do what? Anything from Japan’s side? Japan’s next steps?
- Matt: When you are talking about going back to the 300 mm AUX doc and taking those headings into this document, is your goal still to keep this 450 doc as simple as possible for right now?
- Lorn: Yes. Kind of what Stefan was suggesting: publish what we have and keep it consistent with the background and impact.
- Shida: I think that the 450 AUX doc is not necessary to describe solution or countermeasure
  - Document should describe the problem/issue to protect press and variation in 450G or ITG because the 450 Standard is not completed so,
  - The solution or counter measure is not necessary in this stage
- Matt: Agrees with Shida-san’s statement
  - We want to find/define the problem and point some direction to give some insights to the designer/owners of the problem/product
  - Leave space for the industry to solve the problem
- Lorn: We personally want to stay away from the solution; present the issue to the supplier.
- Stefan: Agrees as well. That was the general consensus during the task force meeting
  - There is a lot of value in putting the problem/issue out there
  - Maybe as solutions are found/implemented, these should be documented as well and to show that the problem is out there
- Larry: I think that a greater value could be that there are different levels of problem description
  - Can also turn into a combination of problems
  - Allow collaboration/innovation between interests
- Matt/Shoji: Next steps for Japan committee plans to discuss this in upcoming meetings
- Discussion: Process of AUX documents

### 5.4 NA 450 mm Shipping Box Task Force

Tom Quinn reported for the NA 450mm Shipping Box Task Force. This task force meets internationally with Japan. There is no other current activity at this time.

### 5.5 450 mm Automated Test Die Prep (Inactive)

Stefan Radloff reported that the NA 450 ATDP TF is inactive. Most of the activities are being driven from Japan task force, under the Assembly and Packaging Committee. Until the activities become parallel, the NA side will remain inactive.

### 6 Old Business

6.1 Proposal for Inactive definition
Stefan Radloff presented on this topic. See attachment for “inactive” proposal. The committee discussed the topic and Stefan took an action item to submit the proposal for review to the ISC RSC.

**Attachment:** inactive July 2016 edits 20160713  
**Action Item:** 2016July#03, Stefan to submit ISC RSC inactive proposal with background information.

### 7 New Business

#### 7.1 New SNARF(s)

Jan Rothe presented three SNARF(s) for review.

**Motion:** Motion to approve SNARF for E19  
**By / 2nd:** Larry Hartsough (UA Associates) / Tom Quinn (Intel)  
**Discussion:** None.  
**Vote:** 8-0 in favor. Motion passed.

**Motion:** Motion to approve SNARF for E111  
**By / 2nd:** Larry Hartsough (UA Associates) / Tom Quinn (Intel)  
**Discussion:** None.  
**Vote:** 8-0 in favor. Motion passed.

**Motion:** Motion to approve SNARF for E112  
**By / 2nd:** Larry Hartsough (UA Associates) / Tom Quinn (Intel)  
**Discussion:** None.  
**Vote:** 8-0 in favor. Motion passed.

**Attachment:** SNARF-E19 edits 201600713  
**Attachment:** SNARF-E111  
**Attachment:** SNARF-E112

#### 7.2 Leadership Changes

Stefan Radloff (Intel) is stepping down as cochair and nominated Melvin Jung to take over his position, pending NARSC approval at Fall 2016 Meetings.

**Motion:** Proposal to nominate Melvin Jung as PIC NA cochair, pending NARSC approval  
**By / 2nd:** Stefan Radloff (Intel) / Larry Hartsough (UA Associates)  
**Discussion:** None.  
**Vote:** 8-0 in favor. Motion passed.

**Action Item:** 2016July#04, Stefan to email proposal of nominee and resignation to James Amano and copy Laura.

### 8 Next Meeting and Adjournment

The next meeting is scheduled for Wednesday, November 8, 2016 for the Fall North America 2016 Standards Meetings at the SEMI Headquarters in San Jose, California. See [http://www.semi.org/en/events](http://www.semi.org/en/events) for the current list of meeting schedules.

The tentative schedule(s) are provided below:

- Tuesday, November 8
  - International Reticle SMIF Pod and Load Port TF (TBD)
  - Global PIC Maintenance TF (13:00 to 15:00)
  - Int’l 450 mm PIC TF (15:00 to 17:00)
Wednesday, November 9

- NA PIC TC Chapter (9:00 to 12:00)

Having no further business, a motion was made to adjourn. Adjournment was at 12:20.

Respectfully submitted by:

Laura Nguyen
SEMI International Standards Coordinator
Phone: +1.408.943.7019
Email: lnguyen@semi.org

Minutes approved by:

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<td>Matt Fuller (Entegris), Co-chair</td>
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<td>Stefan Radloff (Intel), Co-chair</td>
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#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 Laura Nguyen at the contact information above.