

**Korea I&C Committee  
Meeting Summary and Minutes**

13:30 – 16:30  
Thursday 31 January, 2013  
#304, Conference Room (South), Coex

**Next Committee Meeting**  
Friday April 19, 2013  
SEMI Korea Office, Seoul

**Committee Announcements**  
None

**Table 1 Meeting Attendees**

**Co-Chairs:** Chul Hong Ahn (SK hynix), Hyungsu Kim (Samsung SDS), Kevin Lee (Miracom)

**SEMI Staff:** Natalie Shim

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
ASM	Jong Sub	Shim	Samsung SDS	Hyungsu	Kim
Choong Ahng University	Jae Hoon	Lee	SEMES	Chang Yul	Cho
Chung Ahng University	You-Jin	Park	SK Hynix	Chul Hong	Ahn
IT Innovation	Wontae	Kim	SK Hynix	Yoo Ho	Choi
KISA	Ji-Hyun	Lee	TEL Korea	Byoung Min	Im
Kodi-S	Jin Soo	Jung			
Miracom	Kevin	Lee	DNS (Via-teleconference)	Nisimura	Takayuki
PSK	Ray	Eom	Hitachi Kokusai Electric (Via-teleconference)	Matsuda	Mitsuhiro
Samsung Electronics	Yun Kyung	Cho	TEL (Via-teleconference)	Sakamoto	Mitch

**Table 2 Leadership Changes**

None

**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.

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
<b>*Cycle 7-12 Ballot</b>		
5320A	Line Item Revision to SEMI E116, Specification for Equipment Performance Tracking	<b>Failed</b> and sent to TF for rework.

**Table 4 Authorized Ballots**

#	When	SC/TF/WG	Details
5320B	Cycle 3, 2013	GEM300 TF	Line Item Revision to SEMI E116, Specification for Equipment Performance Tracking

**Table 5 Authorized Activities**

None

**Table 6 New Action Items**

Item #	Assigned to	Details
20130131-1	Natalie Shim	Two documents which all related to E94 revision and issuing at cycle 2, 2013 were detected. Technical duplication needs to be checked.
20130131-2	Natalie Shim	Kevin Lee requested to schedule I&CC meetings away from other standards programs so that committee members can attend them from next year.
20130131-3	Natalie Shim	Kevin Lee and Wontae Kim raised SEMI Standard Program's new log-in system issues such as password reset, ID reset and etc. Natalie Shim needs to check new system.
20130131-4	Natalie Shim	Matsuda Mitsuhiro requested EU Equipment Automation liaisons report to SEMI. Natalie Shim will contact EU staff for it.

**Table 7 Previous Meeting Actions Items**

None

**1 Welcome, Reminders, and Introductions**

Chul Hong Ahn (SK Hynix) 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.

**Attachment:** 01, SEMI Standards Required Meeting Elements

**2 Review of Previous Meeting Minutes**

The committee reviewed the minutes of the previous meeting.

- Motion:** Approve the minutes with editorial changes
- By / 2<sup>nd</sup>:** Hyungsu Kim(Samsung SDS)/ Kevin Lee (Miracom)
- Discussion:** None
- Vote:** 12-0, Motion Carried
- Attachment:** 02, Korea I&CC previous meeting minutes

### 3 Liaison Reports

Natalie Shim (SEMI Korea) updated liaison reports from North America and Japan. Of note;

#### 3.1 Japan Information & Control Committee

- Meeting Information
  - Last Meeting: December 7, 2012 @ Makuhari Messe, Chiba, Japan
  - Next Meeting: April 25, 2013 @ SEMI Japan Office, Tokyo, Japan
  - Estimated 2013 Meeting Schedule: April 25/ June/ September/ December 6
- Leadership and Structure Changes
  - Yuko Toyoshima (Hitachi High-Technologies) was newly appointed to a Predictive Carrier Logistics (PCL) TF co-leader.
- New Activities
  - SNARF 5538 (New Standard, Specification for Production Recipe Cache mechanism to Be Used for Production Recipe Protection and Synchronization between Factory System and Equipment)
  - SNARF 5367 (Line item revision to E87, Specification for Carrier Management (CMS). Load Port Transfer Error Indication. **\*Revised SNARF**)
- Ballot Review
  - Doc.5423 (Revision to SEMI E40.1-1106 and SEMI E5-0611E, Add mapping to PPID for RecID) was failed and returned to TF
- Ballot Plan for Cycle 2, 2013
  - Doc.5423A (Revision to SEMI E40.1-1106 SECS- II Support for Processing Management Standards and SEMI E5-0712 SEMI Equipment Communication Standard 2 Message Content (SECS- II); Add mapping to PPID for RecID)
  - Doc.5422 (New Standard, Guide for Equipment Information System Security)
  - Doc.5486 (New Standard, Specification for Predictive Carrier Logistics Information from Equipment to be used for Predictive Carrier Logistics Management)
- Task Force Updates
  - Equipment Information System Security (EISS) task force
    - Planning to issue Doc.5422 (New Guide for Equipment Information System Security) at cycle 2, 2013
  - Sensor Bus task force
    - No major update
  - GEM300 task force
    - Doc.5423 (Revision to SEMI E40.1-1106 and SEMI E5-0611E; Add mapping to PPID for RecID) was failed and returned to TF at Winter Meeting in conjunction with SEMICON Japan 2012. #5423A was approved to be submitted to Cycle 2 at Winter Meeting in conjunction with SEMICON Japan 2012.
    - SNARF 5367 “Line item revision to E87-0709, Specification for Carrier Management (CMS). Load Port Transfer Error Indication.” was revised and approved at Winter Meeting in conjunction with SEMICON Japan 2012.

- SNARF 5538 (New Standard: Specification for Production Recipe Cache mechanism to Be Used for Production Recipe Protection and Synchronization between Factory System and Equipment) was newly proposed and approved at Winter Meeting in conjunction with SEMICON Japan 2012.
- Collaboration with NA GEM300 TF
  - Doc.5454 (Revisions to SEMI E30, Alarm Category)
  - Doc.5508 1(Revisions to SEMI E5, E90 and E90.1, Batch Object)
- Predictive Carrier Logistics (PCL) task force
  - Doc.5486 (New Standard, Specification for Predictive Carrier Logistics Information from Equipment to be used for Predictive Carrier Logistics Management) was approved to be submitted to at cycle 2, 2013.
- AMHS task force
  - None

### 3.2 North America Information & Control Committee

- Meeting Information
  - Last Meeting: October 21, 2012 @ San Francisco, California
  - Next Meeting: April 3, 2013 @ San Jose, California
- No Leadership Changes
- New Activities
  - SNARF 5507 (Revisions to SEMI E120, E120.1, E125, E125.1, E128, E132, E132.1, E134.1, E138 and E139.1)
  - SNARF 5508 (Revisions to SEMI E5, SEMI Equipment Communications Standard 2 Message Content (SECS-II)), SEMI E90, Specification for Substrate Tracking and SEMI E90.1, Specification for SECS-II Protocol Substrate Tracking
  - SNARF 5509 (Revision to SEMI E94, Specification for Control Job Management)
  - SNARF 5510 (Revision to SEMI E157, Specification for Module Process Tracking)
  - SNARF XXXX (Revision to SEMI E30, Generic Model for Communications and Control of Manufacturing Equipment (GEM). Reorganization of introductory sections per the SEMI Standards Procedure Guide and Style Manual) \*Note: This SNARF and letter ballot to be submitted to the I&C GCS for approval)
  - Revised SNARF 5454 (Revision to SEMI E30, Specification for Generic Equipment Model (GEM) Standard and SEMI E5, SEMI Equipment Communications Standards 2 Message Content (SECS-II)
  - 5-Year Review SNARF 5512 (Reviewed SEMI 87.1, Provisional Specification for SECS-II Protocol for Carrier Management (CMS) and recommended to reapprove.
- Ballot Review
  - Passed ballots (cycle 5 and 6 of 2012)
    - 5 reapproval ballots were passed. (E37.1, E54.1, E126 and E139.2)
    - Doc.5177C (Line Item Revisions to SEMI E145-1111, Classification for Measurement Unit Symbols in XML)
      - Line Item 1: Improve readability of combined unit symbols
    - Doc.5452 (Line Item Revisions to SEMI E134-0710, Specification for Data Collection Management and SEMI E134.1-0710, Specification for SOAP Binding of Data Collection Management (DCM)

- Line Item 1: Editorial Changes
- Doc.5481 (Line Item Revision to SEMI E30-0611, Generic Model for Communications and Control of Manufacturing Equipment (GEM). Addition of New Messages)
  - Line Item 1:
    - a. Add new namelist request capabilities to section 4.2 Data Collection.
    - b. Complete Section 7 SECS-II Message Subset.
    - c. Complete Table 10 Section References for GEM Capabilities.
    - d. Add these new capabilities to Table 11 GEM Compliance Statement under “ADDITIONAL CAPABILITIES”
- Doc.5480 (Line Item Revisions to SEMI E164-0712, Specification for EDA Common Metadata Line Item 1: E164-0712 Conceptual Diagrams)
  - Line Item 2: E164-0712 XML File Instructions
  - Line Item 3: E164-0712 Object Attributes
  - Line Item 4: E164-0712 SimpleEvent Names
  - Line Item 5: E164-0712 E94 PRJobStatus TypeDefinition
  - Line Item 6: E164-0712 Errata
  - Line Item 7: E164-0712 E94 PRJobCtrlSpec OutputRule
  - Line Item 8: E164-0712 MaterialStatus in Both SEMI E90 and SEMI E94
- Failed Ballots (cycle 5 and 6 of 2012)
  - Doc.5411 (New Standard, Specification for Equipment Energy Saving Mode, EESM)
  - Doc.5452 (Line Item Revisions to SEMI E134-0710, Specification for Data Collection Management and SEMI E134.1-0710, Specification for SOAP Binding of Data Collection Management (DCM))
    - Line Item 2: Clarify conditionValue for Start Triggers and Stop Triggers
    - Line Item 3: Clarify InvalidExceptionRequest for an isDuplicate special case
  - Doc.5454 (Line Item Revision to SEMI E30-0611, Specification for Generic Equipment Model (GEM) Standard. Modifications to the definition of Alarms)
    - Line Item 1: Modifications to the definition of Alarms
- Ballot Plan
  - Cycle 2, 2013
    - Doc.5452A (Revisions to SEMI E134, Specification for Data Collection Management and SEMI E134.1, Specification for SOAP Binding of Data Collection Management (DCM))
    - Doc.5507 (Revisions to
      - SEMI E120, Specification for the Common Equipment Model (CEM),
      - SEMI E120.1, XML Schema for the Common Equipment Model (CEM),
      - SEMI E125, Specification for Equipment Self Description (EqSD),
      - SEMI E125.1, Specification for SOAP Binding for Equipment Self Description (EQSD),
      - SEMI E128, Specification for XML Message Structures,
      - SEMI E132, Specification for Equipment Client Authentication and Authorization

- SEMI E132.1, Specification for SOAP Binding for Equipment Client Authentication and Authorization (ECA),
- SEMI E134.1, Specification for SOAP Binding of Data Collection Management (DCM),
- SEMI E138, XML Semiconductor Common Components
- SEMI E139.1, XML Schema for the RaP PDE)
- Doc.5411A (New Standard: Specification for Equipment Energy Saving Mode Capability)
- Doc.5453 (New Subordinate Standard: Specification for SECS-II Protocol for Equipment Energy Saving Mode \*Note: This proposal will result in a subordinate standard under the “Specification for Equipment Energy Saving Mode Capability” (i.e., Revision to 5411A))
- Doc.5454A (Revision to SEMI E30, Specification for Generic Equipment Model (GEM) Standard. Modifications to the definition of Alarms)
- Doc.5508 (Revisions to:
  - SEMI E5, SEMI Equipment Communications Standard 2 Message Content (SECS-II)
  - SEMI E90, Specification for Substrate Tracking
  - SEMI E90.1, Specification for SECS-II Protocol Substrate Tracking)
- Doc.5509 (Revision to SEMI E94, Specification for Control Job Management)
- Doc.5510 (Revision to SEMI E157, Specification for Module Process Tracking)
- Doc. TBD (Revision to SEMI E30, Generic Model for Communications and Control of Manufacturing Equipment (GEM) \*Note Reorganization of introductory sections per the SEMI Standards Procedure Guide and Style Manual. Request for ballot authorizations to be approved via I&C Global Coordinating Subcommittee (GCS). May be balloted for Cycle 1, 2013)
- Doc.4507A (Revision to SEMI E133.1, Provisional Specification for XML Messaging for Process Control Systems (PCS). For fault detection enhancements)
- Doc.5274A (New SEMI E54 Subordinate Standard: Specification for Sensor/Actuator Network Specific Device Model for Generic Equipment add-on Sensor (ADDON))
- Doc.5511 (Reapproval of SEMI E54.20, Standard for Sensor/Actuator Network Communications for EtherCAT. \*Note: May be balloted for Cycle 1, 2013)
- Doc.5512 (Reapproval of SEMI E87.1, Provisional Specification for SECS-II Protocol for Carrier Management (CMS) \*Note: May be balloted for Cycle 1, 2013)
- Task Force Updates
  - Diagnostic Data Acquisition (DDA) task force
    - SNARF 5507 (Revisions to SEMI E120, E120.1, E125, E125.1, E128, E132, E132.1, E134.1, E138, E139.1 \*Note: These changes will not affect the respective schema files)
    - Ballots 5507 and 5452A (E134 and E134.1 revision) will be submitted for C2, 2013
  - GEM300 task force
    - SNARF 5508 (Revisions to SEMI E5, SEMI Equipment Communications Standard 2 Message Content (SECS-II)), SEMI E90, Specification for Substrate Tracking and SEMI E90.1, Specification for SECS-II Protocol Substrate Tracking
      - Scope: Provide generalized support for multiple substrate groups such as those used in HB-LED’s material management approach.
    - SNARF 5509 (Revision to SEMI E94, Specification for Control Job Management)

- Scope: Modify the entry for OutputRule in Table 2 and section 8.4.6.1 of E94 such that it is in alignment with E94.1 Table 6. The ballot may also modify other sections that pertain to OutputRule.
- SNARF 5510 (Revision to SEMI E157, Specification for Module Process Tracking)
  - Scope: The ballot plans to make corrections and include more detail explanation to improve future implementations of SEMI E157. Areas that the ballot plans to address are:
  - Mapping of recipe and process program names for the Process module state model, use of recipe parameter for reporting, pre and post processing correction, and any other sections that may be related to the listed topics.
- SNARF XXXX (Revision to SEMI E30, Generic Model for Communications and Control of Manufacturing Equipment (GEM). Reorganization of introductory sections per the SEMI Standards Procedure Guide and Style Manual) \*Note: This SNARF and letter ballot to be submitted to the I&C GCS for approval)
  - In order to give proper notification as well as to provide a formal means of obtaining industry feedback, the committee decided to submit a ballot in early 2013 event the revision is not a technical.
  - Intercommittee ballots issued to the appropriate committees
- Revised SNARF 5454 (Revision to SEMI E30, Specification for Generic Equipment Model (GEM) Standard and SEMI E5, SEMI Equipment Communications Standards 2 Message Content (SECS-II)
- 5-Year Review SNARF 5512 (Reviewed SEMI 87.1, Provisional Specification for SECS-II Protocol for Carrier Management (CMS) and recommended to reapprove.
- Process Control System (PCS) task force
  - E133.1 revision (#4507A) for fault detection enhancements
- To be included during the C1 or C2-13 voting period and reviewed at the NA Standards Spring 2012 meetings
- Sensor Bus task force
  - 5-Year Review
    - Reviewed E54.20 (EtherCAT) and recommended to reapprove. Doc. 5511 to be balloted for C1 or C2-13
  - Doc. 5274 (New E54 subordinate standard for Generic Equipment add-on Sensor (ADDON)) to be reballoted for C1 or C2-13

**Attachment:** 03, Japan I&CC Liaison Report  
04, NA I&CC Liaison Report

### 3.3 SEMI Staff Report

Natalie Shim gave the SEMI Standards Staff Report. The key items were as follows:

- 2013 Global Calendar of Events (through July)
  - European 3D TSV Summit (January 22-23, Grenoble, France)
  - SEMICON/LED Korea 2013 (January 30-February 1, Seoul)
  - ISS Europe 2013 [Industry Strategy Symposium] (February 24-16, Milan, Italy)
  - 7<sup>th</sup> PV Fab Manager Forum (March 10-12, Berlin, Germany)

- SEMICON/FPD/SOLARCON China (March 19-21, Shanghai)
- SEMICON Singapore (May 7-9, Marina Bay Sands)
- SEMICON Russia (June 5-6, Moscow)
- Intersolar Europe (June 19-21, Munich, Germany)
- SEMICON West (July 9-11, San Francisco, California)
- Technical Ballot Critical Dates for Korea Spring 2013 Meetings
  - Cycle 2: due February 4 / February 18 – March 20
- Standards Publication report
  - September 2012 Cycle
    - New Standards-10, Revised Standards-18, Reapproved Standards-7, Withdrawn Standards-0, Total in portfolio-860 (Includes 92 Inactive Standards).
- New Standards Ballot and Membership Systems. Key changes:
  - User interface
  - Log-in
    - One-time log-in per session to vote on ballots
    - Same log-in for SEMI Members
  - Functionality
    - Retrieve and edit submitted votes for current cycle
    - Text field and attachment option for each ballot or line item
  - Integration
    - Linked to new membership application/ profile management
    - Access to other SEMI products & services
    - Total Global Program Members: 4,367
    - The largest committee by Global TC members: PV
- Revised SEMI Regulations and Procedure Guide
  - Major Items
    - Global Technical Committee structure
    - Formation and Disbandment of Global Technical Committee
    - Formation and Disbandment of Technical Committee Chapter under existing Global Technical Committee
    - Elimination of Regional Standards
    - IP Section (section 15)
    - Redefine Supplementary Materials
  - Future Tasks
    - Virtual Meetings
    - Addition of a new official material similar to an Appendix published separately with a different file format
    - Official Liaisons with other SDOs



- Redefine Interest Categories of Technical Committee Members -- currently based on IC, include PV/FPD/MEMS
- Inclusion of regulatory requirement in SEMI Standards / Safety Guidelines

**Attachment:** 05, Staff Report

#### 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 1: Committee adjudication on Cycle 7 is detailed in the Audits & Reviews (A&R) Subcommittee Forms for procedural review. This A&R form is available as attachments to these minutes. The attachment number for each document is provided below the summary table.

##### 4.1 Cycle 7 Ballot

Document #	Document Title	Committee Action
5320A	Line Item Revision to SEMI E116, Specification for Equipment Performance Tracking	<b>Failed</b> and sent to TF for rework.

**Attachment:** 06, 5320A A&R report

#### 5 Subcommittee & Task Force Reports

##### 5.1 GEM300 TF

- The task force leaders summarized the GEM300 task force meeting result. Of note:
  - The task force reviewed Doc.5320A (Line Item Revision to SEMI E116, Specification for Equipment Performance Tracking) cycle 7 ballot result and decided to recommend failing it. Task force also submitted Doc.5320B ballot authorization at cycle 3, 2013.

**Motion:** Approve 5320B at cycle 3, 2013

**By / 2<sup>nd</sup>:** You-Jin Park (Chung Ahng University)/ Jin Soo Jung (Kodi-S)

**Discussion:** None

**Vote:** 11-0, Motion Carried

- 4946A and 5386 will be discussed at the next GEM300 task force meeting.

**Attachment:** 07, GEM300 task force Report

##### 5.2 DDA TF

None

#### 6 Old Business

None

#### 7 New Business

None



## **8 Action Item Review**

### *8.1 Open Action Items*

None

### *8.2 New Action Items*

None

## **9 Next Meeting and Adjournment**

The next meeting of the Korea I&C committee is scheduled for April 19, 2013 at SEMI Korea office, Seoul



Respectfully submitted by:  
 Natalie Shim  
 Standards Specialist  
 SEMI Korea  
 Phone: 81.2.531.7808  
 Email: eshim@semi.org

Minutes approved by:

Chul Hong Ahn (SK Hynix), Co-chair	<Date approved>
Kevin Lee (Miracom), Co-chair	<Date approved>
Hyungsu Kim (Samsung SDS), Co-chair	<Date approved>

**Table 8 Index of Available Attachments #1**

#	<i>Title</i>	#	<i>Title</i>
01	SEMI Standards Required Meeting Elements	05	SEMI Staff Report
02	Korea I&CC previous meeting minutes	06	5320A A&R Report
03	Japan I&CC liaison report	07	GEM 300 task force report
04	NA I&CC liaison report		

#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](http://www.semi.org). For additional information or to obtain individual attachments, please contact [SEMI Staff Name] at the contact information above.