North America Traceability Technical Committee Chapter

1. Meeting Summary and Minutes

**North America Standards SEMICON West 2015 Meetings**

Monday, July 13, 2015, 11:00 AM to 12:30 PM (1100-1230) Pacific Time

San Francisco Marriott Marquis Hotel in San Francisco, California

**TC Chapter Announcements**

*Next NA TC Chapter Meeting*

NA Standards Fall Meetings

Monday, November 2, 2015; 1100 – 1230 Pacific Time

SEMI Headquarters in San Jose, California

Exact meeting date and details will be announced when finalized and available at the SEMI Calendar of Events: <http://www.semi.org/Standards/CalendarEvents>

| Meeting Attendees**Cochairs:** Yaw Obeng (NIST), Win Baylies (BayTech-Resor)**SEMI Standards Staff:** David L. Bouldin |
| --- |
| Company | Last | First | Company | Last | First |
| BayTech-Resor | Baylies | Win | Self | Crispieri | Gino |
| *Intel* | *Brown* | *David* |  |  |  |
| *Materials & Metrology* | *Bullis* | *Murray* | SEMI | Trio | Paul |
| Korea Society of Semiconductor/ Display Equipment Technology | Kim | Kwang-sun | SEMI | Yanagisawa | Chie |
| NIST | Obeng | Yaw | SEMI | Tran | Michael |

*\*Italics indicate virtual participants*

| Leadership Changes |
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| Group | Previous Leader | New Leader |
| --- | --- | --- |
| None |  |  |

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Ballot Results

Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.
Passed ballots and line items with technical changes will be submitted to the ISC Audit & Review Subcommittee for initial procedural review and a Ratification Ballot will be issued.

Failed ballots and line items were returned to the originating task forces for rework and reballoting.

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| *Document #* | *Document Title* | *TC Chapter Action* |
| None |  |  |

Authorized Activities

Listing of all new TFOFs, SNARFs, and other activities approved by the TC Chapter.

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| --- | --- | --- | --- |
| *#* | *Type* | *SC/TF/WG* | *Details* |
| 5923 | SNARF | 5 Year Review TF | Reapproval of SEMI T8-1110: *Specification for Marking of Glass Flat Panel Display Substrates with a Two-dimensional Matrix Code Symbol* |
| 5924 | SNARF | 5 Year Review TF | Reapproval of SEMI T9-1110: *Specification for Marking of Metal Lead-frame Strips with a Two-dimensional Data Matrix Code Symbol* |
| 5918 | SNARF | 5 Year Review TF | Reapproval of SEMI T12-0710: *Specification for Tracing Jigs and Implements* |
| 5919 | SNARF | 5 Year Review TF | Reapproval of SEMI T13-1104 (Reapproved 0710): *Specification for Device Tracking: Concepts, Behavior, and Services* |
| 5920 | SNARF | 5 Year Review TF | Reapproval of SEMI T16-0310: *Specification for Use of Data Matrix Symbology for Automated Identification of Extreme Ultraviolet Lithography Masks* |
| 5921 | SNARF | 5 Year Review TF | Reapproval of SEMI T19-0311: *Specification for Device Marking* |
| 5922 | SNARF | 5 Year Review TF | Reapproval of SEMI T20-0710: *Specification for Authentication of Semiconductors and Related Products* |

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

| Authorized BallotsListing of documents approved by the TC Chapter for letter ballot. |
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| --- | --- | --- | --- |
| *#* | *When* | *SC/TF/WG* | *Details* |
| 5923 | Cycle 7, 2015 | 5 Year Review TF | Reapproval of SEMI T8-1110: *Specification for Marking of Glass Flat Panel Display Substrates with a Two-dimensional Matrix Code Symbol* |
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| New Action Items  |
| --- |
| Item # | Assigned to | Details |
| 2015Jul#01 | David Bouldin | Send a copy of this Standards Staff Report to Win Baylies. |
| 2015Jul#03 | David Bouldin | Create SNARFs for reapproval of T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710.  |
| 2015Jul#03 | David Bouldin | Create Reapproval Letter Ballots for T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710. |
| 2015Jul#04 | Win Baylies | Organize a Standards Workshop on *Security Requirement in ITRS 2.0* and how the SEMI Standards Program can support the ITRS 2.0.  |
| 2015Jul#05 | James Amano | Explore how the SEMI Standards Program can support the ITRS 2.0. |

| Old Action Items  |  |
| --- | --- |
| Item # | Assigned to | Details | Status |
| 2014Jul#01 | Win Baylies | To continue technical discussions regarding Traceability for 450 mm wafers. | Closed. Murray Bullis said not to allow backside marking on 450 mm wafers. Issue is to be discussed tomorrow. |
| 2014Jul#02 | Michael Tran | To coordinate with the Japan Traceability TC Chapter and Traceability GCS to adjudicate Document 5752 after Cycle 7, 2014. | Closed |

1. Welcome, Reminders, and Introductions

Yaw Obeng (NIST) called the meeting to order at 11:20 AM (PDT). Paul Trio presented the meeting reminders on program membership requirements, antitrust issues, intellectual property issues, and holding meetings with international attendance. Attendees introduced themselves.

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

1. Review of Previous Meeting Minutes
	1. The TC Chapter reviewed the minutes of the previous meeting during SEMICON West 2014.

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| --- | --- |
| **Motion:** | To approve the previous meeting minutes from SEMICON West 2014. |
| **By / 2nd:** | Win Baylies (BayTech-Resor) / David Brown (Intel) |
| **Discussion:**  | None. |
| **Vote:** | 3-0 in favor. Motion passed. |

**Attachment:** 02, NA Traceability Meeting Minutes (SEMICON West 2014)

1. Liaison Reports
	1. *Japan Traceability TC Chapter*
		1. Chie Yanagisawa (SEMI Japan) gave the Japan Traceability TC ChapterReport. The key items were as follows:
* TC Chapter Leadership
	+ TC Chapter cochairs
		- Yoichi Iga (Self)
		- Hirokazu Tsunobuchi (Keyence)
* Meeting Information
	+ Last Meeting
		- December 5, 2014 in conjunction with SEMICON Japan 2014 at Tokyo Big Sight Conference Tower, Tokyo, Japan
	+ Next Meeting
		- To be determined; the meeting originally scheduled for April 27, 2015 was cancelled.
* Ballot Review Summary
	+ Doc. 5752, Revision of SEMI T7-0303 (Reapproved 0709) “*Specification for Back Surface Marking of Double-Side Polished Wafers with a Two-Dimensional Matrix Code Symbol*” was passed with editorial changes.
		- Doc. #5752 was developed by the Traceability North America (NA) TC Chapter. The Traceability Japan TC Chapter reached the conclusion that it accepted the proposal by the Traceability NA TC Chapter that Ballot #5752 would be adjudicated at the next meeting of Traceability Japan TC Chapter in December 2014. After that the proposal was also approved by Traceability GCS on October 14, 2014. The ballot was reviewed and adjudicated at the Traceability Japan TC Chapter meeting held on December 5, 2014 in conjunction with SEMICON Japan 2014.
		- The document passed at A&R in Feb. 2015 and was published as SEMI T7-0415.
* Task Force Reports
	+ 5 years review Task Force
		- No Activity
	+ Japan PV Traceability TF
		- Doc. 5594, *New Standard: Guide for Smart Label for PV Traceability* was discontinued.
	+ Fiducial Mark Interoperability TF
		- T7-0415, “Specification for Back Surface Marking of Double-Side Polished Wafers with a Two-Dimensional Matrix Code Symbol” issues
			* Traceability Japan TC Chapter assigned following up activity for T7 to Fiducial Mark Interoperability TF.
				+ Section 2.1 (T7 adoption of non-silicon materials)
				+ Figure 3 small modification
				+ M20 coordinate system (based on negative to 5752 [withdrawn])
			* TF decided to delete all position specifications from SEMI T7 because position specifications are also described on SEMI M1 and other related Silicon Standard.
			* SNARF was made to revise T7 and agreed by TF members.
			* SNARF was already submitted for GCS approval and it has been approved as Doc. 5890.
			* Doc. 5890 to be submitted to Cycle 7, 2015 and to be adjudicated at the next Japan TC Chapter meeting of Traceability Global Technical Committee in conjunction with SEMICON Japan 2015.
* SEMI Japan Standards staff contact: Chie Yanagisawa, cyanagisawa@semi.org

**Discussion:** None.

**Attachment:** 03, Japan Traceability TC Chapter Report (West 2014)

* 1. *North America Standards Staff Report*

David Bouldin (SEMI) gave the SEMI Staff Report. The key items were as follows:

* 2015/2016 Global Calendar of Events
	+ SEMICON West (July 14-16, 2015, San Francisco, California, USA)
	+ SEMICON Taiwan (September 2-4, 2015, Taipei, Taiwan)
	+ European MEMS Summit (September 17-18, 2015, Milan, Italy)
	+ Strategic Materials Conference [SMC] (September 22-23, 2015, Mountain View, California, USA)
	+ SEMICON Europa (October 6-8, 2015, Dresden, Germany)
	+ SEMICON Japan (December 16-18, 2015, Tokyo, Japan)
	+ European 3D Summit (Jan 18-20, 2016, Grenoble, France)
	+ Advanced Semiconductor Manufacturing Conference [ASMC] (May 16-19, 2016, Saratoga Spring, New York, USA)
	+ SEMICON West (July 12-14, 2016 [tentative] San Francisco, California, USA)
* NA Standards SEMICON West 2015 Meetings (July 13 to 16)
	+ TC Chapters meeting at San Francisco Marriott Marquis Hotel (San Francisco, California, USA)
		- 3DS-IC | EH&S | Facilities & Gases | HB-LED | Information & Control | Liquid Chemicals | MEMS/NEMS | Metrics | Microlithography | PV Materials | Physical Interfaces & Carriers | Silicon Wafer | Traceability
* Upcoming North America Standards Meetings (2015/2016)
	+ 2015:
		- NA Standards Fall 2015 Meetings (November 2-5, SEMI HQ, San Jose, California)
	+ 2016:
		- NA Standards Spring 2016 Meetings (April 4-7, SEMI HQ, San Jose, California)
		- SEMICON West (July 11-14, 2016 [tentative] San Francisco, California)
* Letter Ballot Critical Dates for 2015 NA Fall Standards meetings
	+ Cycle 6: due to Standards staff on July 22 / Voting Period: July 29 – August 28
	+ Cycle 7: due to Standards staff on August 17 / Voting Period: August 31 – September 30
* Standards Publications Report

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cycle | New | Revised | Reapproved | Withdrawn |
| March 2015 | 1 | 5 | 2 | 0 |
| April 2015 | 3 | 2 | 0 | 0 |
| May 2015 | 1 | 5 | 1 | 0 |
| June 2015 | 4 | 3 | 15 | 0 |

* + Total in portfolio – 937 (includes 110 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.
			* One due in July 2016 listed for Traceability in Staff Report *{see Attachment 03 of these minutes}*
	+ 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.
	+ New SNARF & TFOF forms *{embedded in Staff Report, see Attachment 03 of these minutes}*
	+ 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.
			* None listed for Traceability in Staff Report *{see Attachment 03 of these minutes}*
	+ Traceability Standards needing Five-Year Review *{embedded in Staff Report, see Attachment 03 of these minutes}*

**Action Item:** 2015July #01, David Bouldin to send a copy of this Standards Staff Report to Win Baylies.

**Attachment:** 05, NA SEMI Standards Staff Report

1. Ballot Review

Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.
Passed ballots and line items with technical changes will be submitted to the ISC Audit & Review Subcommittee for initial procedural review and a Ratification Ballot will be issued.

Failed ballots and line items were returned to the originating task forces for rework and reballoting.

NOTE: TC Chapter adjudication on ballots reviewed is detailed in the Audits & Reviews (A&R) Subcommittee Forms for procedural review. The A&R forms are available as attachments to these minutes. The attachment number for each balloted document is provided under each ballot review section below.

|  |  |  |
| --- | --- | --- |
| *Document #* | *Document Title* | *TC Chapter Action* |
| None |  |  |

1. Subcommittee & Task Force Reports
	1. *Traceability Five Year Review TF*
		1. The TC Chapter looked at Traceability Documents that are due for five-year reviews by March 2016. These are T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710.

|  |  |
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| **Motion:** | To approve SNARFs for reapproval of T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710. |
| **By / 2nd:** | Yaw Obeng (NIST) / Gino Crispieri (self) |
| **Discussion:**  | T20-0710 will be considered later for possible revision or creation of a new Standard. |
| **Vote:** | 3-0 in favor. Motion passed. |
|  |  |
| **Motion:** | To authorize Reapproval Letter Ballots for T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710 for Cycle 7, 2015 for adjudication at the NA Traceability TC Chapter meeting associated with the NA Fall Standards meetings. |
| **By / 2nd:** | Yaw Obeng (NIST) / Gino Crispieri (self) |
| **Discussion:**  | None. |
| **Vote:** | 3-0 in favor. Motion passed. |

**Action Item:** 2015July #02, David Bouldin to create SNARFs for reapproval of T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710.

**Action Item:** 2015July #03, David Bouldin to create Reapproval Letter Ballots for T8-1110, T9-1110, T12-0710, T13-1104 (Reapproved 0710), T16-0310, T19-0311, and T20-0710.

1. Old Business
	1. Status update on action items generated from the previous meetings:

| Item # | Assigned to | Details | Status |
| --- | --- | --- | --- |
| 2014Jul#01 | Win Baylies | To continue technical discussions regarding Traceability for 450 mm wafers. | Closed. Murray Bullis said not to allow backside marking on 450 mm wafers. Issue is to be discussed tomorrow. |
| 2014Jul#02 | Michael Tran | To coordinate with the Japan Traceability TC Chapter and Traceability GCS to adjudicate Document 5752 after Cycle 7, 2014. | Closed |

1. New Business
	1. *ITRS 2.0*
		1. Yaw Obeng (NIST) presented a report on *Security Requirement in ITRS 2.0* based on his involvement in this activity. Opportunities exist for the Traceability Global Technical Committee to develop Standards to support the ITRS 2.0 activity.

**Action Item:** 2015July #04, Win Baylies organize a Standards Workshop on *Security Requirement in ITRS 2.0* and how the SEMI Standards Program can support the ITRS 2.0.

**Action Item:** 2015July #03, James Amano to explore how the SEMI Standards Program can support the ITRS 2.0.

* 1. *New TFOFs/SNARFs*

Listing of all new TFOFs, SNARFs, and other activities approved by the TC Chapter.

|  |  |  |  |
| --- | --- | --- | --- |
| *#* | *Type* | *SC/TF/WG* | *Details* |
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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>

* 1. *New Ballot Authorization*

|  |  |  |  |
| --- | --- | --- | --- |
| *#* | *When* | *SC/TF/WG* | *Details* |
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1. Action Item Review
	1. *Old Action Items*
		1. David Bouldin (SEMI NA) reviewed the old action items. These can be found in the Old Action Items table at the beginning of these minutes.
	2. *New Action Items*
		1. David Bouldin (SEMI NA) reviewed the new action items. These can be found in the New Action Items table at the beginning of these minutes.
2. Next Meeting and Adjournment

The next NA Traceability TC Chapter meeting is scheduled for November 2 in conjunction with the NA Standards Fall 2015 Meetings at SEMI HQ in San Jose, California. The tentative schedule is provided below:

**Fall NA Standards Meetings**

November 2-5, 2015

SEMI Headquarters

3081 Zanker Road

San Jose, CA 95134

U.S.A.

Monday, November 2

* 5 Year Review TF (9:00 AM to 11:00 AM)
* Traceability TC Chapter (11:00 AM to 12:30 PM)

Having no further business, a motion was made to adjourn the NA Traceability TC Chapter meeting on July 13, 2015 in conjunction with the N.A. Standards SEMICON West 2015 Meetings at the San Francisco Marriott Marquis Hotel in San Francisco, California. Adjournment was at 12:30 PM.

Respectfully submitted by:

David L. Bouldin

Contract Standards Engineer

SEMI North America

Phone: +1.972.965.0340

Email: dbouldin@semi.org

Minutes approved by:

|  |  |
| --- | --- |
| Yaw Obeng (NIST), Cochair | September 28, 2015 |
| Win Baylies (BayTech-Resor), Cochair | September 28, 2015 |

| Index of Available Attachments #1 |
| --- |
| # | Title | # | Title |
| 01 | SEMI Standards Required Meeting Elements | 04 | NA Standards Staff Report  |
| 02 | NA Traceability Meeting Minutes (SEMICON West 2014) | 05 | Security in ITRS 2.0 |
| 03 | Japan Traceability TC Chapter 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. For additional information or to obtain individual attachments, please contact David Bouldin at the contact information above.