3D Packaging & Integration North America TC Chapter

Meeting Summary and Minutes

NA Standards Fall Meetings 2025
Tuesday, October 14, 13:00 – 14:30 Pacific
Online via Official Virtual Technical Committee Chapter Meeting (OVTCCM)

TC Chapter Announcements

Next TC Chapter Meeting

NA Winter Meetings 2026

February TBD

Virtual

Table 1 Meeting Attendees

Co-Chairs: Bill Kerr (Evergreen Enhancement), Chris Moore (Consultant)
SEMI Staff: Laura Nguyen

Company	*Last*	*First*	*Company*	*Last*	*First*
Acteon	*Komatsu*	*Shoji*	*Nordson T&I*	*Martell*	*Steve*
Fritz Tech Consultant	*Fritz*	*Denny*	*WD Advanced*	*Ciraldo*	*John*
Intel	*Radloff*	*Stefan*	SEMI	Nguyen	Laura

Table 2 Leadership Changes

None

Table 3 Committee Structure Changes

None

Table 4 Ballot Results

Document #	*Document Title*	*Committee Action*
7368	Reapproval of SEMI 3D12-1020, Guide for Measuring Flatness and Shape of Low Stiffness Wafers	**Passed**, as balloted.

#1 **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

#2 **Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 5 Ratification Ballot Results

None

#1 **Passed** Ratification ballots will be submitted to SEMI publication for final processing.

#2 **Failed** Ratification ballots were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 6 Activities Approved by the GCS between meetings of the TC Chapter

None

Table 7 Authorized Activities

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

None

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

Table 8 Authorized Ballots

Listing of documents authorized by the Originating TC Chapter for Letter Ballot.

#	*When*	*TF*	*Details*
7331	Cycle 1-2026	3DP&I Inspection & Metrology	New Standard: Guide for Peel Testing of RDLs and Other Traces Used Within Advanced Packages and Structures

Table 9 SNARF(s) Granted a One-Year Extension

None

Table 10 SNARF(s) Canceled

None

Table 11 Standard(s) to receive Inactive Status

None

Table 12 New Action Items

Item #	*Assigned to*	*Details*
#01Oct2025	Laura (SEMI)	Coordinate 380 Taiwan 3DP&I request with NA 3DP&I and PIC.

Table 13 Previous Meeting Action Items

Item #	*Assigned to*	*Details*
#01June2025	Shoji/Steve/Rich	Coordinate with Japan PIC and NA PLP Panel TF meeting. Ongoing.

1 Welcome, Reminders, and Introductions

Steve Martell (Nordson T&I) stepped in as acting co-chair and called the meeting to order at 13:09 Pacific. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: SEMI Standards Required Elements

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion:	Approve the minutes as written.
By / 2nd:	By: John Ciraldo / WD Advanced Materials Second: Dennis Fritz / Fritz Technology Consulting
Discussion:	None.
Vote:	4-0 in favor. Motion passed.

Attachment: [2025Summer] 3DP&I NA TC Chapter Meeting Minutes

3 Liaison Reports

3.1 *3D Packaging & Integration Japan TC Chapter*

Laura Nguyen (SEMI HQ) reported for the Japan TC Chapter. Of note:

Meeting Information

- Last meeting: Monday, October 6, 2025, OVTCCM/ SEMI Japan, Tokyo, Japan (Hybrid)
- Next meeting: March 9, 2026, SEMI Japan, Tokyo, Japan (Hybrid)

Ballot Results

- 7359, Reapproval of SEMI G11-0519, Practice for RAM Follower Gel Time and Spiral Flow of Thermal Setting Molding Compounds) [Passed as balloted]
- 7360, Reapproval of SEMI G73-0519, Test Method for Pull Strength for Wire Bonding [Passed as balloted]
- 7361, Reapproval of SEMI G77-0699 (Reapproved 1020), Specification for Frame Cassette for 300 mm Wafers [Passed as balloted]

Authorized Activities

- SNARF xxxx, New Standard: Test method for Wafer Bond Strength Measurement by Double-Cantilever Beam [Wafer Bond Strength Measurement by Doublecantilever Beam TF]
- TFOF for Wafer Bonding Pressure Evaluation TF

Authorized Ballots for Cycle 1 or 2-2026

- XXXX, New Standard: Test method for Wafer Bond Strength Measurement by Double-Cantilever Beam

Staff Contact: Akiko Yoshida at ayoshida@semi.org

Attachment: JRSC Rport_October 2025_3DP&I

3.2 *3D Packaging & Integration Taiwan TC Chapter*

Laura Nguyen (SEMI HQ) reported for the Japan TC Chapter. Of note:

Meeting Information

- *Previous update was Summer 2022*
- Last meeting: August 14, 2025, OVTCCM/ SEMI Taiwan
- Next meeting: TBD

Leadership

- Wendy Chen – KYEC
- Roger Hwang – ASE
- Jerry, C.H. Wang – ITRI

Org Chart *{refer to attachment for details}*

Authorized Activities

- TFOF for 3D Packaging Smart Manufacturing Task Force
    - SNARF 7391: Guide for Trays Accommodating 380x380mm2 IC Packages [3D Packaging Smart Manufacturing Task Force]
        - Type ll Liaison proposal with JEDEC

Task Force Highlights

- Testing Task Force
    - No update
- Middle End Process Task Force
    - No update

Staff Contact: Nick Chen (nchen@semi.org), Cheryl Chuang (cchuang@semi.org)

Attachment: 3D P&I Taiwan Liaison Report_20250818_V1_distr

3.3 *SEMI Staff Report*

Laura Nguyen (SEMI) gave the SEMI Staff Report. Of note:

SEMI Global 2025 & 2026 Calendar of Events

- SEMCON West (Oct 7-9; Phoenix, Arizona)
- SEMICON Europa (Nov 18-21; Munich, Germany)
- SEMICON Japan (December 17-19; Tokyo, Japan)
- SEMICON Korea (Feb 11-13; Seoul, Korea)
- SEMICON China (March 25-27; Shanghai, China)
- SEMICON Southeast Asia (May 5-7, 2026; Kuala Lumpur, Malaysia)

SEMICON West 2025-2030

- 2025—October 7-9 | Phoenix Convention Center | Phoenix, AZ
- 2026—October 13-15 | Moscone Center | San Francisco, CA
- 2027—October 12-14 | Phoenix Convention Center | Phoenix, AZ
- 2028—October 10-12 | Moscone Center | San Francisco, CA
- 2029—October 9-11 | Phoenix Convention Center | Phoenix, AZ
- 2030—October 29-31 | Moscone Center | San Francisco, CA

Global Standards Summit (GSS) 2025 @ SEMICON West

- Date/Time: Tuesday, October 7 | 1:30 PM to 5:30 PM | North Building, 200 Level, Room 229A
- Theme: Future Standards for Connected & Sustainable Semiconductor Manufacturing
- Session Description: The Global Standards Summit is a strategic forum dedicated to identifying standards-critical areas and advancing an industry-wide standardization roadmap for the next 3- and 7-year horizons. Building on the momentum of the inaugural Summit—which spotlighted essential topics such as environmental sustainability—this year's gathering continues that dialogue while expanding focus to include emerging challenges like supply chain traceability.
- With increasing fragmentation across the global microelectronics supply chain driven by geopolitical and other disruptive forces, the need for unified standards is more critical than ever. This Summit provides a timely opportunity to convene, collaborate, and identify the standards that will address these challenges and foster greater industry alignment. We encourage you to join, engage, and help shape the future of standards.
- https://www.semiconwest.org/programs/global-standards-summit

Workshops @ SEMICON West 2025

- SEMI Liquid Chemicals Analytical Workshop
    - Description: Focusing on recent advances in analytical methodology and instrumentation
    - Wednesday, October 8, 09:00-11:30 (North Bldg | Room 229B)
- Enhancing Voltage Sag Immunity: SEMI F47 Standard Updates & Insights
    - Description: Delivering practical recommendations to enhance the SEMI F47 standard and increase tool resilience in future designs, with a focus on power quality conditions, equipment susceptibility, testing approaches, and mitigation strategies.
    - Wednesday, October 8, 14:30-16:30 (North Bldg | Room 229B)
- Semiconductor Device Manufacturing in a Cleanroom (Best Practices to Improve Product Reliability and Yield) [SEMIU]
    - Description: Provides the fundamentals and thought processes to improve your production reliability & yield.
    - Thursday, October 9, 8:00 AM - 4:00 PM (North Bldg | 200 Level)

Upcoming NA Meetings 2025 (Proposed)

- NA Standards Winter Meetings: Feb 23-26, 2026 (tentative), at SEMI HQ, Milpitas, California/USA
- NA Spring Meetings (in conjunction with ASMC): May 11-14, 2026, Hilton Albany, New York
    - *{refer to attachment for additional information on ASMC}*
- SEMICON West Meeting: Oct 12-15, 2026, at Moscone Center, San Francisco, CA/USA

2025 Critical Dates for SEMI Standards Ballots

- Cycle 8-2025: Ballot Submission Due: Sept 3/Voting Period: Sept 24 – Oct 24
- Cycle 9-2025: Ballot Submission Due: Oct 14/Voting Period: Oct 29 – Nov 28

2026 Critical Dates for SEMI Standards Ballots *(Tentative)*

- Cycle 1-2026: Ballot Submission Due: Dec 16/Voting Period: Jan 7 – Feb 6
- Cycle 2-2026: Ballot Submission Due: Jan 23/Voting Period: Feb 11 – Mar 13
- Cycle 3-2026: Ballot Submission Due: Mar 5/Voting Period: Mar 18 – Apr 17
- Cycle 4-2026: Ballot Submission Due: Mar 30/Voting Period: Apr 14 – May 14
- Cycle 5-2026: Ballot Submission Due: May 8/Voting Period: May 27 – June 26

https://www.semi.org/en/collaborate/standards/ballots

Standards Publications Report

Cycle	*New*	*Revised*	*Reapproved*	*Withdrawn*
May 2025	0	5	4	0
June 2025	1	0	0	0
July 2025	1	4	0	0
August 2025	0	1	0	0
September 2025	4	1	3	0

Total in portfolio – 1,107 (includes 373 Inactive Standards)

New Standards

Cycle	*Designation*	*Title*	*Committee*	*Region*
June 2025	SEMI M94	Specification for Silicon Carbide Engineered Substrates	Compound Semiconductor Materials	EU
July 2025	SEMI E194	Guide to Using a Liquid Particle Counter to Assess Particulate Surface Contamination on Critical Chamber Components and Coupons	Metrics	NA
September 2025	SEMI E195	Test Method Using Adhesive Replacement Substrates to Assess Particulate Surface Contamination on Critical Chamber Components	Metrics	NA

September 2025	SEMI E196	Guide for Equipment Edge Data Governance	Information & Control	TW
September 2025	SEMI M95	Test Method for Net Carrier Density and Resistivity of Silicon Epitaxial Layer by Capacitance-Voltage Measurements with an Evaporated Metal Schottky Diode	Silicon Wafer	JP
September 2025	SEMI T26	Specification for Electronic Supply Chain Traceability Using Distributed Ledger Technology	Traceability	NA

Educational Courses under Development

- {EDA} Everything You Need to Know about the SEMI Equipment Data Acquisition (EDA) Standards Suite
    - Objective: Introduce EDA standards, best practices for implementation, and addresses concerns about adoption through example use cases
    - Course Date: November 20, 2025, in conjunction with SEMICON Europa
    - Status: Confirmed, under development
- {Subfab} Intro to Sub-fab Course
    - Objective: Gain a comprehensive understanding of SubFAB operations, including system components, facility layouts, environmental and sustainability considerations, organizational structure, safety and maintenance best practices, and incident-response preparedness within the semiconductor manufacturing ecosystem.
    - Course Date: Early 2026 (2 sessions, EU & Asia friendly)
    - Status: Under development
- Other courses being considered: SECS/GEM, Seals, Cybersecurity
- *Interested in shaping future educational courses with us? Please reach out to SEMI staff.*

Regulations & Procedure Manual

- Regulations (Feb 20, 2024): https://www.semi.org/sites/semi.org/files/2024-02/Standards%20Regulations%20February%2020%202024.pdf
- Procedure Manual (July 7, 2025)
    - https://www.semi.org/sites/semi.org/files/2025-07/Procedure%20Manual%20July%2007%2C%202025%20v1.pdf
    - Noticeable updates:
        - Major revision to multiple Standards
            - New SNARF Form (July 2025)
        - Ballot checklist requirement for Revision to Primary Standard

Staff Contact: Laura Nguyen, Lnguyen@semi.org

Attachment: Staff_HQ Report Oct 2025 v4_distr

4 Ballot Review

NOTE 1: 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. The attachment file name for each balloted document is provided under each ballot review section below.

4.1 Document # 7368, Reapproval of SEMI 3D12-1020, Guide for Measuring Flatness and Shape of Low Stiffness Wafers

- The ballot passed TC Chapter review as balloted. Refer to attachment for ballot adjudication.

Attachment: 7368_ProceduralReview

5 Subcommittee and Task Force Reports

5.1 *Panel Level Packaging (PLP) Panel Task Force*

PLP Panel TF did not meet at this meeting set. The TF leaders continue to liaise with the PIC PLP activities to ensure both documents don't overlap and complement each other.

5.2 *3DP&I Inspection & Metrology and Bonded Wafer Stacks Task Force*

Task Force Leader Steve Martell (Nordson SONOSCAN) reported for both the 3DP&I Inspection & Metrology and 3DP&I Bonded Wafer Stacks Task Forces. Of note:

- TF reviewed ballot 7368. Refer to § 4 for results.
- 7331: New Standard, *Guide for Peel Testing of RDLs and Other Traces Used Within Advanced Packages and Structures*

Motion:	Authorize the Document for Letter Ballot in Cycle 1-2026: 7331, New Standard: Guide for Peel Testing of RDLs and Other Traces Used within HDI, WLP, and PLPs Structures
By / 2nd:	By: Dennis Fritz / Fritz Technology Consulting Second: John Ciraldo / WD Advanced Materials
Discussion:	None.
Vote:	4-0 in favor. Motion passed.

6 Old Business

6.1 *Upcoming Standards for Five-Year Review*

None

7 New Business

7.1 *3DP&I Co-chair Nomination*

Motion:	Proposal to nominate John Ciraldo as new 3DP&I NA Co-Chair
By / 2nd:	By: Shoji Komatsu / Acteon NEXT LLC Second: Dennis Fritz / Fritz Technology Consulting
Discussion:	None.
Vote:	4-0 in favor. Motion passed.

8 Action Item Review

8.1 New Action Items are noted in Table 11. Previous action items are noted in Table 12 in 'red' and for recent updates in 'blue'. There is no further business.

9 Next Meeting and Adjournment

9.1 The next meeting is tentatively scheduled for the week of February 9-11, 2026. Please check the SEMI Standards website for updates: https://www.semi.org/en/products-services/standards

Adjournment: 13:58.

Respectfully submitted by:

Laura Nguyen

Sr. Coordinator, International Standards

SEMI Global Headquarters

Phone: +1.408.943.7019

Email: lnguyen@semi.org

Minutes tentatively approved by:

Bill Kerr (Evergreen Enhancement), Co-chair	<Date approved>
Chris Moore (Consultant), Co-chair	<Date approved>

Minutes approved by: **3DP&I NA OVTCCM on XXXX.**

Table 14 Index of Available Attachments[#1]

Title	*Title*
SEMI Standards Required Elements	3D P&I Taiwan Liaison Report_20250818_V1_distr
[2025Summer] 3DP&I NA TC Chapter Meeting Minutes	Staff_HQ Report Oct 2025 v4_distr
JRSC Rport_October 2025_3DP&I	7368_ProceduralReview

#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.