



# Photovoltaic Taiwan TC Chapter

## Meeting Summary and Minutes

Taiwan Spring Standards Meeting  
 Tuesday, Jan 07, 2025 14:00 – 16:00  
 Online Meeting

### TC Chapter Announcements

Next TC Chapter Meeting  
 TBD

### Table 1 Meeting Attendees

Italics indicate virtual participants

**Co-Chairs:** Teng-Chun Wu (ITRI) / Ray Sung (UL)

**SEMI Staff:** *Nick Chen/ Cheryl Chuang*

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Mettler Toledo	Wai	Bryant			
King Design	Shih	Jason			

### Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None		

### Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
None	

### Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
7207A	Reapproval of SEMI PV23-1011 (Reapproved 0818), Test Method for Mechanical Vibration of Crystalline Silicon Photovoltaic (PV) Modules in Shipping Environment	<b>Passed</b>
7208A	Reapproval of SEMI PV38-0912 (Reapproved 0818), Test Method for Mechanical Vibration of c-Si PV Cells in Shipping Environmen	<b>Passed</b>
7209	Reapproval of SEMI PV72-0316, Test Method to Evaluate an Accelerated Thermo Humidity Resistance of Photovoltaic (PV) Encapsulation	<b>Failed</b>
7210A	Reapproval of SEMI PV84-0818, Test Method for Polymer Foil Dependent Discoloration of Silver Fingers on Photovoltaic Modules	<b>Passed</b>

#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 Activities Approved by the GCS between meetings of the TC Chapter**

#	Type	SC/TF/WG	Details
None			

**Table 6 Authorized Activities**

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

#	Type	SC/TF/WG	Details
7209	SNARF	PV Reliability Test Method TF	The ballot is failed in Cycle 4-24 with one reject comment by Michael Kempe (NREL), so PV Reliability Test Method TF will review. The content of reject : The use of pressure cooker tests is so highly accelerated that its utility is very questionable. This test is very likely to produce a lot of false negative results will cause the industry to unnecessarily use more costly materials.
TBD	SNARF	Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	SEMI PV56-1214 (Reapproved 0820), Test Method for Performance Criteria of Photovoltaic (PV) Cells and Modules Package is due to five year review plan, so Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF will discuss how to review

#1 SNARFs and TFOFs are available for review on the SEMI Web site at:

<http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

**Table 7 Authorized Ballots**

#	When	TF	Details
None			

**Table 8 SNARF(s) Granted a One-Year Extension**

#	TF	Title	Expiration Date
None			

**Table 9 SNARF(s) Abolished**

#	TF	Title
None		

**Table 10 Standard(s) to receive Inactive Status**

Standard Designation	Title
None	

**Table 11 New Action Items**

Item #	Assigned to	Details
Five Year Review	Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	SEMI PV56-1214 (Reapproved 0820), Test Method for Performance Criteria of Photovoltaic (PV) Cells and Modules Package is due to five year review plan, so Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF will discuss how to review
TF Leader Replacement	Co-Chair Teng-Chun Wu (ITRI)	Mina Hsieh (ITRI), leader of PV Reliability Test Method TF has job responsibility change. Co-Chair Teng-Chun Wu (ITRI) recommends Dr. Matt Tsai (ITRI) as new leader (approved by committee on Jan. 07, 2024). Therefore, Co-Chair Teng-Chun

	Wu (ITRI) will get the join approval from Dr. Matt Tsai.
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**Table 12 Previous Meeting Action Items**

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
Five Year Review #7209	PV Reliability Test Method	TF will discuss SEMI PV72-0316- Test Method to Evaluate an Accelerated Thermo Humidity Resistance of Photovoltaic (PV) Encapsulation because there is one reject by Michael Kempe (NREL). The content of reject : The use of pressure cooker tests is so highly accelerated that its utility is very questionable. This test is very likely to produce a lot of false negative results will cause the industry to unnecessarily use more costly materials.

**1 Welcome, Reminders, and Introductions**

Committee Co-Chairs Teng-Chun Wu (ITRI) called the meeting to order at 14:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

**Attachment:** Required Element Nov 2020

**2 Review of Previous Meeting Minutes**

The TC Chapter reviewed the minutes of the previous meeting.

**Motion:** Approve previous meeting minute.

**By / 2<sup>nd</sup>:** Jason Shih (King Design)/ Ray Sung (UL)

**Discussion:** None

**Vote:** 3-0 in favor. Motion passed

**Attachment:** PV Meeting Minutes 20240626 V2

**3 Liaison Reports**

**3.1 Photovoltaic and PV Materials China TC Chapter**

--Nick Chen (SEMI) gave the China TC Chapter

PV and PV Materials Joint Global Technical Committees Liaison Report, Of note:

Last meeting is held Nov 20th, Fall 2024 Meeting, Chengdu, Sichuan. Next meeting will be Spring Meeting, 2025.

Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None		

**Ballot Result**

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
None		

**Authorized Activities**

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
PV	SNARF	Crystalline Silicon Solar Cell Task Force	New Standard: Specification for Property requirements of finger pastes for TOPCon Cell with Laser assisted firing Process
PV	SNARF	PV Module Task Force	New Standard: Test Method for PV modules Intensify Aging in Cold Environmental Conditions
PVM	SNARF	PV Silicon Wafer Task Force	Reapproval of SEMI PV90-0319, Guide for Material Requirements of Internal Feeders Used in Mono-crystal Silicon Growers



Authorized Ballots

#	Type	SC/TF/WG	Details
7166	Cycle1-2025	Crystalline Silicon Solar Cell Task Force	Revision to SEMI PV79-0818, Test Method for Exposure Durability of Photovoltaic (PV) Cells to Acetic Acid Vapor
7249	Cycle1-2025	PV Equipment Task Force	Revision to SEMI PV81-0318, Guide for Specifying Low Pressure Horizontal Diffusion Furnace

SNARF(s) Abolished

#	TF	Title
None		

**Attachment:** China PV&PVM Committee Chapter Liaison Report

**3.2** Photovoltaic (PV) – Materials NA TC Chapter

No Update

**3.3** SEMI Staff Report

--Nick Chen (SEMI) gave the SEMI Staff Report. Of note: Action Item: SEMI Global 2025 Calendar of Events

2025 Critical Dates for SEMI Standards Ballots

**Attachment:** Staff Report\_PV TC Meeting\_ 20250107

**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 number for each balloted document is provided under each ballot review section below.



**4.1 Document # 7207A, Reapproval of SEMI PV23-1011 (Reapproved 0818), Test Method for Mechanical Vibration of Crystalline Silicon Photovoltaic (PV) Modules in Shipping Environment**

Motion: This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review

By / 2nd: By: Ray Sung (UL Taiwan) / Jason Shih (King Design)

Discussion: None

Vote: 3-Y 0-N. Motion passed..

**4.2 Document # 7208A, Reapproval of SEMI PV38-0912 (Reapproved 0818), Test Method for Mechanical Vibration of c-Si PV Cells in Shipping Environment**

Motion: This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review

By / 2nd: By: Ray Sung (UL Taiwan) / Jason Shih (King Design)

Discussion: None

Vote: 3-Y 0-N. Motion passed..

**4.3 Document # 7210A, Reapproval of SEMI PV84-0818, Test Method for Polymer Foil Dependent Discoloration of Silver Fingers on Photovoltaic Modules**

Motion: This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review

By / 2nd: By: Jason Shih (King Design) / Ray Sung (UL Taiwan)

Discussion: None

Vote: 3-Y 0-N. Motion passed.

**5 Subcommittee and Task Force Reports**

None

**6 Old Business**

None

**7 New Business**

Co-Chair Teng-Chun Wu (ITRI) recommends Dr. Matt Tsai (ITRI) as new leader (approved by committee on Jan. 07, 2024). Therefore, Co-Chair Teng-Chun Wu (ITRI) will get the join approval from Dr. Matt Tsai.



## **8 Next Meeting and Adjournment**

TBD

See <http://www.semi.org/standards-events> for the current list of events

Adjournment: 15:00

Respectfully submitted by:

Cheryl Chuang



Standards Coordinator

SEMI Taiwan

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Minutes tentatively approved by:

Co-chair	Date Approved
Teng-Chun Wu (ITRI)	Jan. 15 <sup>th</sup> , 2025
Ray Sung (UL)	Jan. 8 <sup>th</sup> , 2025
Jay Lin (PV Guider)	Jan. 16 <sup>th</sup> , 2025

**Table 13 Index of Available Attachments<sup>#1</sup>**

<i>Title</i>	<i>Title</i>
1 <u>Required Element Nov 2020</u>	4. <u>China PV&amp;PVM Committee Chapter Liaison Report</u>
2 <u>PV Meeting Minutes 20240626 V2</u>	
3 <u>Staff Report PV TC Meeting 20250107</u>	

#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.