



# FPD Materials & Components and FPD Metrology Japan Joint TC Chapter Meeting Summary and Minutes

Japan Standards Autumn Meetings 2025

Wednesday, October 15, 2025, 3:00PM – 5:00PM JST

SEMI Japan, Tokyo, Japan / Official Virtual TC Chapter Meeting (Hybrid)

## TC Chapter Announcements

### Next TC Chapter Meeting

FPD Materials & Components Japan TC Chapter and FPD Metrology Japan TC Chapter joint meeting will be held on Thursday, March 19, 2026, 3:00PM - 5:00PM JST via OVTCCM and at SEMI Japan, Tokyo, Japan.

## Table 1 Meeting Attendees

*Italics indicate virtual participants*

FPD Materials & Components TC Co-Chairs: Tadahiro Furukawa (Yamagata University), Ryoichi Watanabe (Self), Toshimasa Eguchi (Sumitomo Bakelite)

FPD Metrology TC Co-Chairs: Ryoichi Watanabe (Self), Akira Kawaguchi (Otsuka Electronics)

**SEMI Staff:** Nahoko Koga (SEMI Japan)

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
<i>MORESCO</i>	<i>Uehigashi</i>	<i>Atsushi</i>	<i>FUJIFILM</i>	<i>Ishizuka</i>	<i>Hiroshi</i>
Self	Watanabe	Ryoichi	<i>FUJIFILM</i>	<i>Shibahara</i>	<i>Yoshi</i>
Nippon steel Chemical & Material	Nakatsuka	Jun	<i>SK-Electronics</i>	<i>Yagi</i>	<i>Toshifumi</i>
Nippon steel Chemical & Material	Takata	Rie	<i>SK-Electronics</i>	<i>Miyazaki</i>	<i>Shohei</i>
Yamagata University	Furukawa	Tadahiro	ITRI	Pong	Bao-Jen
<i>Hoya Corporation</i>	<i>Kondo</i>	<i>Keitaro</i>	SEMI Japan	Yoshida	Akiko
<i>Otsuka Electronics</i>	<i>Kawaguchi</i>	<i>Akira</i>	SEMI Japan	Koga	Nahoko
<i>Sumitomo Bakelite</i>	<i>Eguchi</i>	<i>Toshimasa</i>			

## Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
None		
<i>FPD Metrology Japan TC Chapter</i>		
None		

## Table 3 TC Chapter Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>	
None	
<i>FPD Metrology Japan TC Chapter</i>	
None	

**Table 4 Ballot Results**

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
None		
<i>FPD Metrology Japan TC Chapter</i>		
None		

#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**

<i>Document #</i>	<i>Document Title</i>	<i>ISC A&amp;R Action</i>	<i>A&amp;R Forms</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>			
None			
<i>FPD Metrology Japan TC Chapter</i>			
None			

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

Note 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**

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>			
None			
<i>FPD Metrology Japan TC Chapter</i>			
None			

**Table 7 Authorized Activities**

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

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>			
7403	SNARF	FPD Mask Task Force	Revision to SEMI D53-0421, Specification for Flat Panel Display (FPD) Pellicles
7404	SNARF	FPD Materials & Components Maintenance Task Force	Line Item Revision to SEMI D9-0303, Terminology for Flat Panel Display (FPD) Substrates
<i>FPD Metrology Japan TC Chapter</i>			
None			

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

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

**Table 8 Authorized Ballots**

<i>#</i>	<i>When</i>	<i>TF</i>	<i>Details</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>			

**Table 8 Authorized Ballots**

#	When	TF	Details
7383	Cycle1-2026	FPD Mask Task Force	Reapproval of SEMI D20-0706, Terminology for FPD Mask Defect
7384	Cycle1-2026	FPD Mask Task Force	Reapproval of SEMI D21-0706, Terminology for FPD Mask Pattern Accuracy
7403	Cycle1-2026	FPD Mask Task Force	Revision to SEMI D53-0421, Specification for Flat Panel Display (FPD) Pellicles
7404	Cycle1-2026	FPD Materials & Components Maintenance Task Force	Line Item Revision to SEMI D9-0303, Terminology for Flat Panel Display (FPD) Substrates
<i>FPD Metrology Japan TC Chapter</i>			
None			

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

#	TF	Title	Expiration Date
<i>FPD Materials &amp; Components Japan TC Chapter</i>			
None			
<i>FPD Metrology Japan TC Chapter</i>			
None			

**Table 10 SNARF(s) Cancelled**

#	TF	Title
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
None		
<i>FPD Metrology Japan TC Chapter</i>		
None		

**Table 11 Standard(s) to receive Inactive Status**

Standard Designation	Title
<i>FPD Materials &amp; Components Japan TC Chapter</i>	
None	
<i>FPD Metrology Japan TC Chapter</i>	
None	

**Table 12 New Action Items**

Item #	Assigned to	Details
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
FPDM&C_20251015_01	Flexible Display Task Force	To prepare SNARF for Revision to D80, and to submit ballot for GCS Approval for Cycle 1.
FPDM&C_20251015_02	SEMI Staff	To send SNARF for Revision to D80 to Global TC members for 2 weeks review.

**Table 12 New Action Items**

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
FPDM&C_202 51015_03	Flexible Display Task Force and SEMI Staff	To submit D80 Revision ballot for Cycle 1.
FPDM&C_202 51015_04	FPD Mask TF	To prepare SNARF for Revision to D42, and to submit ballot for GCS Approval for Cycle 1.
FPDM&C_202 51015_05	FPD Mask TF and SEMI Staff	To submit SEMI D20 Reapproval ballot (Doc.#7383), SEMI D21 Reapproval ballot (Doc.#7384), SEMI D53 Revision ballot (Doc.#7403), SEMI D42 Revision ballot for Cycle1.
FPDM&C_202 51015_06	FPD Materials & Components Maintenance TF and SEMI Staff	To submit Line Item Revision to D9-0303 (Doc.#7404) for ballot Cycle 1.
<i>FPD Metrology Japan TC Chapter</i>		
None		

**Table 13 Previous Meeting Action Items**

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
FPDM&C_202 50718_01	Flexible Display Task Force	To propose SNARF for Major Revision to SEMI D80-0421.→Open
FPDM&C_202 50718_02	FPD Materials & Components Maintenance Task Force	To propose SNARF for Line Item Revision to SEMI D9-0303.→Closed
FPDM&C_202 50718_03	FPD Mask Task Force	To propose SNARF for Revision to SEMI D42-0421.→Open To propose SNARF for Revision to SEMI D53-0421.→Closed
FPDM&C_202 50718_04	SEMI Staff	To prepare Reapproval Ballots for SEMI D20-0706 and SEMI D21-0706.→Closed
<i>FPD Metrology Japan TC Chapter</i>		
None		

## 1 Welcome, Reminders, and Introductions

Toshimasa Eguchi (Sumitomo Bakelite) called the meeting to order at 3:00PM. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

**Attachment:** 01\_Required Meeting Elements March 2024\_J

## 2 Review of Previous Meeting Minutes

The FPD Materials & Components Japan TC Chapter and the FPD Metrology Japan TC Chapter reviewed the minutes of the previous meeting.

**Motion:** Approve the minutes as written.  
**By / 2<sup>nd</sup>:** By: Ryoichi Watanabe / Self  
Second By: Jun Nakatsuka / NIPPON STEEL Chemical & Material  
**Discussion:** None.  
**Vote:** 8-Y 0-N Motion Passed.  
**Attachment:** 02\_FPD M&C+FPD Met\_JA\_Mins\_20250718\_v1.0

### 3 Liaison Reports

#### 3.1 Japan Regional Standards Committee (JRSC)

Nahoko Koga (SEMI Japan) reported for the JRSC that the meeting was held on Thursday, August 28, 2025. Topics included:

- SEMI Standards Award Selection Committee for 2025 has been launched, and preparations are now underway for the Award Ceremony scheduled to take place at the Friendship Party during SEMICON Japan.
- The Planning Meeting was held on Thursday, August 28, 2025 inviting all the TF leaders as well as TC co-chairs to deepen knowledge related to standardization. The theme this year was “Gaps in Supply Chain Transparency and SEMI Standards.”

**Attachment:** 03\_JRSC Liaison Report\_202510

#### 3.2 Global Coordinating Subcommittee (GCS)

Nahoko Koga (SEMI Japan) reported for GCS that there had been no updates from the previous meeting.

#### 3.3 FPD Metrology Korea TC Chapter

Nahoko Koga (SEMI Japan) reported for the FPD Metrology Korea TC Chapter. Of note:

- Last meeting was held on August 28, 2025 (Hybrid) and the next meeting will be held on January 15, 2026 (Hybrid).
- Doc.#7154A, New Standard, Test Method for Flicker of Flat Panel Displays failed ballot review.
- Doc.#7358, Reapproval of SEMI D76-0318, Test Method for Viewing Angle Characteristic Using Reference Color on Visual Display passed as balloted.
- Doc.#7155, New Standard, Test Method for Optical Switchable Properties of Automotive Display was approved for Ballot Cycle 7, 2025 by the GCS.
- Doc.#7154B, New Standard, Test Method for Flicker of Flat Panel Displays was authorized for Ballot Cycle9, 2025 and Doc.#7394, New Standard, Test Method for Accurate Color Performance of Flat Panel Display was authorized for Ballot Cycle1, 2026.
- SNARF for New Standard, Test Method for Accurate Color Performance of Flat Panel Display was authorized.

**Attachment:** 04\_Liaison report\_KR\_FPDM\_Oct2025\_v2\_20251015

#### 3.4 FPD Metrology Taiwan TC Chapter

Bao-Jen Pong (ITRI) reported for the FPD Metrology Taiwan TC Chapter. Of note:

- Last meeting was held on October 3, 2025 (Hybrid) and the next meeting will be held on May 22, 2026.
- The following four SNARFs for Reapproval Ballots due to 5-year review were approved by the TC Chapter.
  - Reapproval of SEMI D69-0520, Test Method of FPD-Based Stereoscopic Display with Active Glasses

- Reapproval of SEMI D70-0520, Test Method of FPD-Based Stereoscopic Display with Passive Glasses
- Reapproval of SEMI D72-0520, Test Method for Color Properties of Electronic Paper Displays
- Reapproval of SEMI D73-1020, Reapproval of SEMI D73-1020 - Test Method for Positional Accuracy of Capacitive Touchscreen Panel
- Doc. #7352, Major Revision to SEMI D056-00-0519 Test Method for Measurement for Ambient Contrast of Flat Panel Displays, was approved by the TC Chapter.

**Attachment:** 05\_FPD-M Taiwan Liaison Report\_20251003\_V1

#### 4 SEMI Staff Report

Nahoko Koga (SEMI Japan) gave the SEMI Staff Report. Of note:

- SEMICON West 2025 was held in Phoenix, Arizona for the first time. From now on, SEMICON West will alternate each October between Phoenix and San Francisco.
- The second Global Standards Summit (GSS) took place at SEMICON West. GSS aims to identify areas relevant to standards and develop strategies for industry standardization over the next 3- and 7-year periods. This year's event continued discussions from previous meetings and included new topics such as supply chain traceability.
- The locations and dates for the NA Winter Meeting and NA Spring Meeting are under discussion. Once they are finalized, further information will be provided.
- SEMICON Japan is scheduled for December 17-19 at Tokyo Big Site. Due to renovation work at Tokyo Big Sight, Standards Meetings will take place in the TFT Building.

**Attachment:** 06\_Staff Report Oct 2025 v4\_202510

#### 5 Ballot Review

None

#### 6 Subcommittee and Task Force Reports

##### 6.1 FPD Materials & Components Japan TC Chapter

###### 6.1.1 Flexible Display Task Force

Tadahiro Furukawa (Yamagata University) reported that the Flexible Display Task Force met on October 15, 2025, prior to the TC Chapter meeting, to review document D80-0421 for its 5-year Review.

###### 6.1.2 FPD Mask Task Force

Shohei Miyazaki (SK Electronics) reported that FPD Mask Task Force is discussing continuously about a new mask case development.

###### 6.1.3 FPD Materials & Components Maintenance Task Force

Tadahiro Furukawa (Yamagata University) reported that the FPD Materials & Components Maintenance Task Force met on October 15, 2025, prior to the TC Chapter meeting, to discuss on the SNARF for D9-0303, for its 5 year-Review.

##### 6.2 FPD Metrology Japan TC Chapter

###### 6.2.1 FPD Metrology Maintenance Task Force

Ryoichi Watanabe (Japan Display) reported that the FPD Metrology Maintenance Task Force met on June 9, 2025, and September 3, 2025 to discuss on the following three ballot documents.

- Doc.#7154A, New Standard: Test Method for Flicker of Flat Panel Displays
- Doc.#7358, Reapproval of SEMI D76-0318, Test Method for Viewing Angle Characteristic Using Reference Color on Visual Display
- Doc.#7155, New Standard: Test Method for Optical Switchable Properties of Automotive Display

**Attachment:** 07\_FPD Metrology Maintenance TF Report\_20251015

## 7 Old Business

### 7.1 FPD Materials & Components Japan TC Chapter

#### 7.1.1 Project Period Review

No SNARF will be expiring soon.

#### 7.1.2 5-year Review

The following six documents will be due for 5-year Review.

- SEMI D80-0421, Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time
- SEMI D53-0421, Specification for Flat Panel Display (FPD) Pellicles
- SEMI D42-0421, Specification for Ultra Large Size Mask Substrate Case
- SEMI D9-0303 (Reapproved 0321), Terminology for FPD Substrates
- SEMI D21-0706 (Reapproved 0221), Terminology for FPD Mask Pattern Accuracy
- SEMI D20-0706 (Reapproved 0221), Terminology for FPD Mask Defect

The FPD Materials & Components Japan TC Chapter reviewed SNARFs for Major Revision to SEMI D53-0421 and Line Item Revision to SEMI D9-0303. The SNARFs were proposed by the responsible Task Forces.

- SEMI D53-0421: Specification for Flat Pane Display (FPD) Pellicles

**Motion:** Approve the SNARF for Major Revision to SEMI D53-0421: Specification for Flat Pane Display (FPD) Pellicles

**By / 2<sup>nd</sup>:** By: Yagi Toshifumi / SK-Electronics CO.,LTD.  
Second By: Keitaro Kondo / HOYA Corporation

**Discussion:** None.

**Vote:** 7-Y 0-N Motion Passed.

- SEMI D9-0303: Terminology for Flat Panel Display (FPD) Substrates

**Motion:** Approve the SNARF for Line Item Revision to SEMI D9-0303: Terminology for Flat Panel Display (FPD) Substrates

**By / 2<sup>nd</sup>:** By: Hiroshi Ishizuka / FUJIFILM Corporation  
Second By: Jun Nakatsuka / NIPPON STEEL Chemical & Material Co., Ltd.

**Discussion:** None.

**Vote:** 8-Y 0-N Motion Passed.

The FPD Materials & Components Japan TC Chapter submitted the four documents under 5 year review for Ballot Authorization.

- SEMI D20-0706, Terminology for FPD Mask Defect

**Motion:** Authorize Reapproval of SEMI D20-0706: Terminology for FPD Mask Defect for Letter Ballot Cycle 1-2026.

**By / 2<sup>nd</sup>:** By: Shohei Miyazaki / SK-Electronics CO.,LTD

Second By: Keitaro Kondo / HOYA Corporation

**Discussion:** None.

**Vote:** 9-Y 0-N Motion Passed.

● SEMI D21-0706, Terminology for FPD Mask Pattern Accuracy

**Motion:** Authorize Reapproval of SEMI D21-0706, Terminology for FPD Mask Pattern Accuracy for Letter Ballot Cycle 1-2026.

**By / 2<sup>nd</sup>:** By: Shohei Miyazaki / SK-Electronics CO.,LTD

Second By: Keitaro Kondo / HOYA Corporation

**Discussion:** None.

**Vote:** 7-Y 0-N Motion Passed.

● SEMI D53-0421: Specification for Flat Pane Display (FPD) Pellicles

**Motion:** Authorize Document for Major Revision to SEMI D53-0421: Specification for Flat Pane Display (FPD) Pellicles for Letter Ballot Cycle 1-2026.

**By / 2<sup>nd</sup>:** By: Shohei Miyazaki / SK-Electronics CO.,LTD.

Second By: Keitaro Kondo / HOYA Corporation

**Discussion:** None.

**Vote:** 8-Y 0-N Motion Passed.

● SEMI D9-0303: Terminology for Flat Panel Display (FPD) Substrates

**Motion:** Authorize Document for Line Item Revision to SEMI D9-0303: Terminology for Flat Panel Display (FPD) Substrates for Letter Ballot Cycle 1-2026.

**By / 2<sup>nd</sup>:** By: Hiroshi Ishizuka / FUJIFILM Corporation

Second By: Jun Nakatsuka / NIPPON STEEL Chemical & Material Co., Ltd.

**Discussion:** None.

**Vote:** 8-Y 0-N Motion Passed.

**Attachment:** 08\_SNARF\_D53\_MajorRevision\_Specification for FPD Pellicles

09\_SNARF\_D9\_Line Item Revision\_Terminology for Flat Panel Display(FPD) Substrates

## 7.2 FPD Metrology Japan TC Chapter

### 7.2.1 Project Period Review

No SNARF will be expiring soon.

### 7.2.2 5-year Review

No document is subject to 5-year Review within this year.

## 8 New Business

### 8.1 FPD Materials & Components Japan TC Chapter

None.

### 8.2 FPD Metrology Japan TC Chapter

None.

## 9 Action Item Review

### 9.1 Open Action Items

Item #	Assigned to	Details
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
FPDM&C_202 50718_01	Flexible Display Task Force	To propose SNARF for Major Revision to SEMI D80-0421.→Open
FPDM&C_202 50718_02	FPD Materials & Components Maintenance Task Force	To propose SNARF for Line Item Revision to SEMI D9-0303.→Closed
FPDM&C_202 50718_03	FPD Mask Task Force	To propose SNARF for Revision to SEMI D42-0421.→Open To propose SNARF for Revision to SEMI D53-0421.→Closed
FPDM&C_202 50718_04	SEMI Staff	To prepare Reapproval Ballots for SEMI D20-0706 and SEMI D21-0706.→Closed
<i>FPD Metrology Japan TC Chapter</i>		
None		

### 9.2 New Action Items

Item #	Assigned to	Details
<i>FPD Materials &amp; Components Japan TC Chapter</i>		
FPDM&C_202 51015_01	Flexible Display Task Force	To prepare SNARF for Revision to D80, and to submit ballot for GCS Approval for Cycle 1.
FPDM&C_202 51015_02	SEMI Staff	To send SNARF for Revision to D80 to Global TC members for 2 weeks review.
FPDM&C_202 51015_03	Flexible Display Task Force and SEMI Staff	To submit D80 Revision ballot for Cycle 1.
FPDM&C_202 51015_04	FPD Mask TF	To prepare SNARF for Revision to D42, and to submit ballot for GCS Approval for Cycle 1.
FPDM&C_202 51015_05	FPD Mask TF and SEMI Staff	To submit SEMI D20 Reapproval ballot (Doc.#7383), SEMI D21 Reapproval ballot (Doc.#7384), SEMI D53 Revision ballot (Doc.#7403), SEMI D42 Revision ballot for Cycle1.
FPDM&C_202 51015_06	FPD Materials & Components Maintenance TF and SEMI Staff	To submit Line Item Revision to D9-0303 (Doc.#7404) for ballot Cycle 1.
<i>FPD Metrology Japan TC Chapter</i>		
None		

## 10 Next Meeting and Adjournment

The next FPD Materials & Components Japan TC Chapter and FPD Metrology Japan TC Chapter joint meeting is scheduled for Thursday, March 19, 2026, 3:00PM – 5:00PM JST via OVTCCM and at SEMI Japan, Tokyo, Japan. See <https://www.semi.org/en/expositions-events/calendar> for the current list of events.

Adjournment: [5:00 PM JST]>.



Respectfully submitted by:

Nahoko Koga

Standards & EHS

SEMI Japan

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Minutes tentatively approved by:

<i>FPD Materials &amp; Components Japan TC Chapter</i>	
Tadahiro Furukawa (Yamagata University), Co-chair	October 23, 2025
Ryoichi Watanabe (Self), Co-chair	October 23, 2025
Toshimasa Eguchi (Sumitomo Bakelite), Co-chair	October 24, 2025
<i>FPD Metrology Japan TC Chapter</i>	
Ryoichi Watanabe (Self), Co-chair	October 23, 2025
Akira Kawaguchi (Otsuka Electronics), Co-chair	October 23, 2025

**Table 14 Index of Available Attachments<sup>#1</sup>**

<i>Title</i>	<i>Title</i>
01_Required Meeting Elements March 2024_J	06_Staff Report Oct 2025 v4_202510
02_FPD M&C+FPD Met_JA_Mins_20250718_v1.0	07_FPD Metrology Maintenance TF Report_20251015
03_JRSC Liaison Report_202510	08_SNARF_D53_MajorRevision_Specification for FPD Pellicles
04_Liaison report_KR_FPDM_Oct2025_v2_20251015	09_SNARF_D9_Line Item Revision_Terminology for Flat Panel Display(FPD) Substrates
05_FPD-M Taiwan Liaison Report_20251003_V1	

<sup>#1</sup> 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 Nahoko Koga at the contact information above.