



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

Japan Standards Spring Meetings 2026

Thursday, March 19, 2026, 2:00PM - 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 meeting will be held on Friday, October 9, 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>
HOYA CORPORATION	Kondo	Keitaro	<i>Otsuka Electronics Co., Ltd.</i>	<i>Kawaguchi</i>	<i>Akira</i>
Self	Watanabe	Ryoichi	<i>Sumitomo Bakelite Co., Ltd.</i>	<i>Eguchi</i>	<i>Toshimasa</i>
Yamagata University	Furukawa	Tadahiro	<i>SK-Electronics CO.,LTD.</i>	<i>Yagi</i>	<i>Toshifumi</i>
NIPPON STEEL Chemical & Material Co., Ltd.	Nakatsuka	Jun	<i>SK-Electronics CO.,LTD.</i>	<i>Miyazaki</i>	<i>Shohei</i>
<i>NIPPON STEEL Chemical & Material Co., Ltd.</i>	<i>Takata</i>	<i>Rie</i>	<i>RTConsults</i>	<i>Yee</i>	<i>Michael</i>
<i>FUJIFILM Corporation</i>	<i>Shibahara</i>	<i>Yoshi</i>	<i>Kei techno research</i>	<i>Ochi</i>	<i>Keizo</i>
<i>FUJIFILM Corporation</i>	<i>Ishizuka</i>	<i>Hiroshi</i>	SEMI Japan	Yoshida	Akiko
<i>MORESCO CORPORATION</i>	<i>Uehigashi</i>	<i>Atsushi</i>	SEMI Japan	Koga	Nahoko

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
FPD Materials & Components Japan TC	Ryoichi Watanabe (Self)	Keitaro Kondo (HOYA CORPORATION)
Flexible Display Task Force	Haruhiko Itoh (Teijin Limited)	None
<i>FPD Metrology Japan TC Chapter</i>		
FPD Metrology Japan TC	Ryoichi Watanabe (Self)	None
FPD Metrology Japan TC	Akira Kawaguchi (Otsuka Electronics Co., Ltd.)	None

Staff Note: The committee agreed to recommend a new leader for the FPD Materials & Components Japan TC Chapter for appointment by the JRSC, in accordance with Regulations § 5.7.5.

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 & Components Japan TC Chapter</i>	
None	
<i>FPD Metrology Japan TC Chapter</i>	
FPD Metrology Japan TC	Disband

Staff Note: In accordance with Regulations § 5.6.3.9, the FPD Metrology Japan TC Chapter will be disbanded upon approval by the JRSC.

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
7383	Reapproval of SEMI D20-0706 (Reapproved 0221), Terminology for FPD Mask Defect	Passed as balloted
7384	Reapproval of SEMI D21-0706 (Reapproved 0221), Terminology for FPD Mask Pattern Accuracy	Passed as balloted
7412	Reapproval of SEMI D42-0421, Specification for Ultra Large Size Mask Substrate Case	Passed as balloted
7403	Revision to SEMI D53-0421, Specification for Flat Panel Display (FPD) Pellicles	Passed as balloted
7404	Line Item Revision to SEMI D9-0303 (Reapproved 0321), Terminology for Flat Panel Display (FPD) Substrates	Passed as balloted
7413	Revision to SEMI D80-0421, with title change from Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time to Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Films Using a Quadrupole Mass Spectrometer	Passed as balloted
<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>Committee Action</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
None		
<i>FPD Metrology Japan TC Chapter</i>		
None		

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 & Components Japan TC Chapter</i>			
7412	SNARF Approval, Ballot Authorization	FPD Mask TF	Reapproval of SEMI D42-0421, Specification for Ultra Large Size Mask Substrate Case
7413	SNARF Approval, Ballot Authorization	Flexible Display TF	Revision to SEMI D80-0421, with title change from Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time to Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Films Using a Quadrupole Mass Spectrometer

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

#	Type	SC/TF/WG	Details
<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.

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

#	When	TF	Details
<i>FPD Materials & Components Japan TC Chapter</i>			
None			
<i>FPD Metrology Japan TC Chapter</i>			
None			

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

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

Table 10 SNARF(s) Cancelled

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

Table 12 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
FPDM&C_202 60319_01	SEMI Staff	To forward the ballot adjudication result of Doc.#7383, 7384, 7403, 7404, 7412 and 7413 to ISC A&R Subcommittee for procedural review.
<i>FPD Metrology Japan TC Chapter</i>		
FPD Met_20260319 _01	Co-chairs	To submit the FPD Metrology Japan TC Chapter disbandment proposal to JRSC for approval.

Table 13 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<i>FPD Materials & 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		

1 Welcome, Reminders, and Introductions

Tadahiro Furukawa (Yamagata University) called the meeting to order at 2:00PM. 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 with one correction.
By / 2nd: By: Keitaro Kondo / HOYA CORPORATION
Second By: Jun Nakatsuka / NIPPON STEEL Chemical & Material Co., Ltd.
Discussion: Correction was made to the next meeting date (year).
Vote: 9-Y 0-N Motion Passed.
Attachment: 02_FPD M&C+FPD Met_JA_Mins_20251015_R2

3 Technical Committee Award

The Technical Committee Award recognizes leadership in document development, committee management, task force coordination, and Standards dissemination. The awardees for FPD Materials & Components Japan TC Chapter were:

- Keitaro Kondo (HOYA CORPORATION)
- Shohei Miyazaki (SK-Electronics CO., LTD.)

4 Liaison Reports

4.1 Japan Regional Standards Committee (JRSC)

Nahoko Koga (SEMI Japan) reported that SEMI Japan honors outstanding SEMI Standards members, as determined by the JRSC. At SEMICON Japan 2025, awards were presented at the SEMI Standards Friendship Party & Awards Ceremony to individuals who made significant contributions to the SEMI Standards Program. The recipients included:

- SEMI Japan International Collaboration Award: Hirokazu Tsunobuchi (GENETEC CORPORATION) and Haruna Hayashi (Tokyo Electron Ltd.)
- SEMI Japan Honor Award: Tetsuya Nakai (SUMCO CORPORATION)
- SEMI Japan Special Award: Masanori Yoshise (Self)

Attachment: 03_JRSC Report_March 2026_R0

4.2 Global Coordinating Subcommittee (GCS)

Nahoko Koga (SEMI Japan) reported for the FPD Materials & Components GCS that SNARF for Doc.#7412, Reapproval of SEMI D42-0421, Specification for Ultra Large Size Mask Substrate Case and for Doc.#7413, Revision to SEMI D80-0421, with title change from Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time to Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Films Using a Quadrupole Mass Spectrometer were approved and both documents were authorized to be submitted for Cycle 1-2026.

There had been no voting or discussion in GCS between meetings of the FPD Metrology Japan TC Chapter.

4.3 FPD Metrology Korea TC Chapter

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

- Last meeting was held on January 15, 2026 (Hybrid) and the next meeting will be held on September 10, 2026 (Hybrid).
- Doc.#7154B, New Standard, Test Method for Flicker of Flat Panel Displays and Doc.#7155, New Standard, Test Method for Optical Switchable Properties of Automotive Display both failed ballot review and will be returned to the Task Force for rework.

- Doc.#7154C, New Standard, Test Method for Flicker of Flat Panel Displays and Doc.#7394, New Standard, Test Method for Accurate Color Performance of Flat Panel Display was authorized for Ballot Cycle 4-2026. Doc.#7155A, New Standard, Test Method for Optical Switchable Properties of Automotive Display was authorized for Ballot Cycle 6-2026.

Attachment: 04_Liaison report_KR_FPDM_Mar2026

4.4 FPD Metrology Taiwan TC Chapter

Nahoko Koga (SEMI Japan) 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 for ballot cycle 9-2025.

Attachment: 05_FPD-M Taiwan Liaison Report_20251003_V1

5 SEMI Staff Report

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

- In 2025, 14 new SEMI Standards were released, including D88, M95, and T27, which were developed by Japan TC Chapters.
- The SEMI HQ IT Team has rebuilt SVM to address login access issues. Following internal testing, the beta version was launched in February. Updates have been made to improve performance based on user feedback. All enhancements are expected to be completed shortly.

Attachment: 06_Staff_HQ Report Feb 2026_JA_R1

6 Ballot Review

NOTE 1: TC Chapter adjudication of ballots 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.

6.1 FPD Materials & Components Japan TC Chapter

6.1.1 Doc.#7383, Reapproval of SEMI D20-0706 (Reapproved 0221), Terminology for FPD Mask Defect

6.1.2 Doc.#7384, Reapproval of SEMI D21-0706 (Reapproved 0221), Terminology for FPD Mask Pattern Accuracy

6.1.3 Doc.#7412, Reapproval of SEMI D42-0421, Specification for Ultra Large Size Mask Substrate Case

6.1.4 Doc.#7403, Revision to SEMI D53-0421, Specification for Flat Panel Display (FPD) Pellicles

6.1.5 Doc.#7404, Line Item Revision to SEMI D9-0303 (Reapproved 0321), Terminology for Flat Panel Display (FPD) Substrates

6.1.6 Doc.#7413, Revision to SEMI D80-0421, with title change from Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time to Test Method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Films Using a Quadrupole Mass Spectrometer

- All six Documents **passed** as balloted and will be forwarded to the ISC A&R SC for procedural review.

6.2 FPD Metrology Japan TC Chapter

None

Attachment: 07_7383_Ballot Review
08_7384_Ballot Review
09_7412_Ballot Review
10_7403_Ballot Review
11_7404_Ballot Review
12_7413_Ballot Review

7 Subcommittee and Task Force Reports

7.1 FPD Materials & Components Japan TC Chapter

7.1.1 Flexible Display Task Force

Tadahiro Furukawa (Yamagata University) reported for the Flexible Display Task Force. One of the Co-leaders, Haruhiko Itoh (Teijin Limited) stepped down from co-leader position. A New standard and a Revision standard are planned.

7.1.2 FPD Mask Task Force

Keitaro Kondo (HOYA CORPORATION) reported for the FPD Mask Task Force. Since the last committee meeting, the Task Force met three times and is now working on a New Standard.

7.1.3 FPD Materials & Components Maintenance Task Force

Tadahiro Furukawa (Yamagata University) reported for the FPD Materials & Components Maintenance Task Force that there were no activities to be reported between meetings of the FPD Materials & Components Japan TC Chapter. The Task Force will prepare for the 5-year review of SEMI D50-0822, Test Method for Surface Hardness of Flat Panel Display (FPD) Components.

7.2 FPD Metrology Japan TC Chapter

7.2.1 FPD Metrology Maintenance Task Force

Ryoichi Watanabe (Self) reported for the FPD Metrology Maintenance Task Force. There were no activities to be reported.

Attachment: 13_260319 Minutes FPD_Mask_TF

8 Old Business

8.1 Project Period Review

8.1.1 FPD Materials & Components Japan TC Chapter

There are no SNARFs that need extension.

8.1.2 FPD Metrology Japan TC Chapter

There are no SNARFs that need extension.

8.2 5-Year Review

8.2.1 FPD Materials & Components Japan TC Chapter

The following document will be due for 5-year Review.

- SEMI D74-1121, Guide for Measuring Dimensions of Plastic Films/Substrates

8.2.2 FPD Metrology Japan TC Chapter

There are no documents that need 5-year review.

9 New Business

9.1 FPD Materials & Components Japan TC Chapter

9.1.1 Leadership Change

After many years of committed service, Ryoichi Watanabe (Self) has stepped down from his position as TC co-chair. The current co-chairs have recommended Keitaro Kondo (HOYA CORPORATION) as the successor for the TC co-chair role.

Motion: Approve the recommendation that Keitaro Kondo (HOYA CORPORATION) be appointed as the new Co-chair by the JRSC

By / 2nd: By: Ryoichi Watanabe / Self
Second: Jun Nakatsuka / NIPPON STEEL Chemical & Material Co., Ltd.

Discussion: None

Vote: 9-Y 0-N Motion Passed

Staff Note: The committee agreed to recommend a new leader for the FPD Materials & Components Japan TC Chapter for appointment by the JRSC, in accordance with Regulations § 5.7.5.

9.2 FPD Metrology Japan TC Chapter

9.2.1 Future of the Committee

Following his departure from Japan Display in September 2025, Ryoichi Watanabe (Self) will move to a new industry and resign from his role as Co-chair. Both Co-chairs, including Akira Kawaguchi (Otsuka Electronics Co., Ltd.), have proposed disbanding the FPD Metrology Japan TC Chapter since the committee no longer includes representatives from FPD manufacturers and there are no new manufacturers available to join. As a result, ongoing standardization activities are no longer viable.

Motion: Approve disbandment of FPD Metrology Japan TC Chapter and to submit to JRSC

By / 2nd: By: Akira Kawaguchi / Otsuka Electronics Co., Ltd.
Second: Keizo Ochi / Kei techno research

Discussion: None

Vote: 7-Y 0-N Motion Passed

Staff Note: In accordance with Regulations § 5.6.3.9, the FPD Metrology Japan TC Chapter will be disbanded upon approval by the JRSC.

10 Action Item Review

10.1 FPD Materials & Components Japan TC Chapter

10.1.1 Open Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
FPDM&C_202510_15_01	Flexible Display Task Force	To prepare SNARF for Revision to D80, and to submit ballot for GCS Approval for Cycle 1. →Closed
FPDM&C_202510_15_02	SEMI Staff	To send SNARF for Revision to D80 to Global TC members for 2 weeks review. →Closed
FPDM&C_202510_15_03	Flexible Display Task Force and SEMI Staff	To submit D80 Revision ballot for Cycle 1. →Closed
FPDM&C_202510_15_04	FPD Mask TF	To prepare SNARF for Revision to D42, and to submit ballot for GCS Approval for Cycle 1. →Closed
FPDM&C_202510_15_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. →Closed
FPDM&C_202510_15_06	FPD Materials & Components Maintenance TF and SEMI Staff	To submit Line Item Revision to D9-0303 (Doc.#7404) for ballot Cycle 1. →Closed

10.1.2 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
FPDM&C_202603_19_01	SEMI Staff	To forward the ballot adjudication result of Doc.#7383, 7384, 7403, 7404, 7412 and 7413 to ISC A&R Subcommittee for procedural review.

10.2 FPD Metrology Japan TC Chapter

10.2.1 Open Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
None		

10.2.2 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
FPD Met_20260319_01	Co-chairs	To submit the proposal for disbandment of the FPD Metrology Japan TC Chapter to JRSC for approval.

11 Next Meeting and Adjournment

The next FPD Materials & Components Japan TC Chapter meeting is scheduled for Friday, October 9, 2026, 3:00PM - 5:00PM JST at SEMI Japan, Tokyo, Japan and via Official Virtual TC Chapter Meeting.

Adjournment: [5:00 PM JST]>.



Respectfully submitted by:

Nahoko Koga

Standards & EHS

SEMI Japan

Phone: +81-3-3222-6018

Email: nkoga@semi.org

Minutes tentatively approved by:

<i>FPD Materials & Components Japan TC Chapter</i>	
Tadahiro Furukawa (Yamagata University), Co-chair	April 21, 2026
Ryoichi Watanabe (Self), Co-chair	April 21, 2026
Toshimasa Eguchi (Sumitomo Bakelite), Co-chair	April 21, 2026
<i>FPD Metrology Japan TC Chapter</i>	
Ryoichi Watanabe (Self), Co-chair	April 21, 2026
Akira Kawaguchi (Otsuka Electronics), Co-chair	April 20, 2026

Table 14 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
01_Required Meeting Elements March 2024_J	02_FPD M&C+FPD Met_JA_Mins_20251015_R2
03_JRSC Report_March 2026_R0	04_Liaison report_KR_FPDM_Mar2026
05_FPD-M Taiwan Liaison Report_20251003_V1	06_Staff_HQ Report Feb 2026_JA_R1
07_7383_Ballot Review	08_7384_Ballot Review
09_7412_Ballot Review	10_7403_Ballot Review
11_7404_Ballot Review	12_7413_Ballot Review
13_260319 Minutes FPD_Mask_TF	

#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 Nahoko Koga at the contact information above.