



FPD Materials & Components and FPD Metrology

Japan Joint TC Chapter

Meeting Autumn and Minutes

SEMI Standards Japan Fall Meetings

Monday, October 21, 2024

SEMI Japan/ Official Virtual TC Chapter Meeting (Hybrid)

1:00 PM - 3:30 PM JST

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 Friday, February 7, 2025 3:00 PM - 5:00 PM 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 (Japan Display), Toshimasa Eguchi (Sumitomo Bakelite)

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

SEMI Staff: Akiko Yoshida (SEMI Japan)

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
FUJIFILM	Ishizuka	Hiroshi	<i>Sumitomo Bakelite</i>	<i>Eguchi</i>	<i>Toshimasa</i>
<i>HOYA Corporation</i>	<i>Kondo</i>	<i>Keitaro</i>	<i>SK-Electronics</i>	<i>Miyazaki</i>	<i>Shohei</i>
Japan Display	Watanabe	Ryoichi	Yamagata University	Furukawa	Tadahiro
<i>Kei techno research</i>	<i>Ochi</i>	<i>Keizo</i>	SEMI Japan	Hirabara	Takeaki
<i>NIPPON STEEL Chemical & Material</i>	<i>Nakatsuka</i>	<i>Jun</i>	SEMI Japan	Kamejinaka	Keiko
<i>Otsuka Electronics</i>	<i>Kawaguchi</i>	<i>Akira</i>	SEMI Japan	Yoshida	Akiko

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

Table 3 TC Chapter 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>
<i>FPD Materials & Components Japan TC Chapter</i>		
7256	Reapproval to SEMI D19-1019, Test Method for the Determination of Chemical Resistance of Flat Panel Display Color Filters	Passed as balloted
7257	Reapproval to SEMI D45-1019, Test Method for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter	Passed as balloted
7258	Line Item Revision to SEMI D46-1019, Terminology for FPD Polarizing Films	
Line Item 1	Update throughout to comply with the Style Manual	Passed as balloted
7260	New Standard: Specification for Electrostatic Properties of FPD Photomasks and Blanks Package	Passed as balloted
7259	Revision to SEMI D31-0318, with title change from Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality Inspection to Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality	Failed
<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 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 TC Chapter</i>			
7260	SNARF and Ballot Authorization for Cycle 6	FPD Mask TF	New Standard: Specification for Electrostatic Properties of FPD Photomasks and Blanks Package and its ballot submission for Cycle – Approved by GCS on 10/11/2024
<i>FPD Metrology TC Chapter</i>			
None			

Table 6 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 & 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:

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

Table 7 Authorized Ballots

#	When	TF	Details
<i>FPD Materials & Components Japan TC Chapter</i>			
None			
<i>FPD Metrology Japan TC Chapter</i>			
7259A	Cycle 9-24	FPD Metrology Maintenance Task Force	Revision to SEMI D31-0318, with title change from Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality Inspection to Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality

Table 8 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 9 SNARF(s) Abolished

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

Table 10 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 11 New Action Items

Item #	Assigned to	Details
<i>FPD Materials & Components Japan TC Chapter</i>		
FPDM&C_20241021_01	SEMI Staff	To forward the ballot adjudication result of Doc.#7256, 7257, 7258 and 7260 to the ISC A&R Subcommittee for procedural review.
<i>FPD Metrology Japan TC Chapter</i>		
FPDMet_20241021-01	FPD Metrology Maintenance Task Force	To submit Doc.#7259A, Revision to SEMI D31-0318, with title change from Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality Inspection to Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality for Cycle 9.

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
FPDM&C_20240621_01	SEMI Staff	To forward the ballot adjudication result of Doc.#7215, 7216, 7217, 7218 and 7219 to ISC A&R Subcommittee for procedural review. →Closed
FPDM&C_20240621_02	FPD Materials & Components Maintenance Task Force	To submit D19 and D45 Reapproval ballots, and D46 Line Item Revision ballot for Cycle 6. →Closed
FPDM&C_20240621_03	FPD Mask Task Force	To propose SNARF for Specification for Electrostatic Properties of FPD Photomasks and Blanks Package as well as ballot submission for Cycle 6 to GCS. →Closed
<i>FPD Metrology Japan TC Chapter</i>		
FPDMet_20240621-01	FPD Metrology Maintenance Task Force	To submit SEMI D31 Revision ballot for Cycle 6. →Closed

1 Welcome, Reminders, and Introductions

Tadahiro Furukawa called the meeting to order at 1:00 PM JST. 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 / 2nd:** By: Ryoichi Watanabe/ Japan Display Inc.
Second: Keizo Ochi/ Kei techno research
- Discussion:** None.
- Vote:** 8-Y 0-N. Motion Passed.

Attachment: 02_FPD M&C+FPD Met_JA _Mins_20240621_R1

3 Liaison Reports

3.1 *Japan Regional Standards Committee (JRSC)*

Tadahiro Furukawa (Yamagata University) reported for the JRSC that there had been no updates related to FPD Materials & Components or FPD Metrology from the previous meeting, but noted the followings as related topics to the JRSC.

- On August 30, all the JRSC members and Task Force leaders were invited to the annual Planning Meeting. This year's theme was “Digital Twin.” Experiences and knowledge were shared with participants, and insights into potential standardization needs were discussed.
- Many of TFs under SEMI International Standards Program have been using Connect@SEMI for TF management and as document repository. However, many issues have been pointed out. The SPI (Standards Process

Improvement) TF under the JRSC has been working to identify issues and summarize them to bring them to SEMI HQ to improve the issues.

3.2 Global Coordinating Subcommittee (GCS)

3.2.1 FPD Materials and Components Japan TC Chapter

Akiko Yoshida (SEMI Japan) reported for the GCS of the global FPD Materials and Components TC that the GCS approved the followings:

- SNARF#7260, New Standard: Specification for Electrostatic Properties of FPD Photomasks and Blanks Package and its ballot submission for Cycle 6 - *Approved by the GCS on 10/11/2024.*

3.2.2 FPD Metrology Japan TC Chapter

Akiko Yoshida (SEMI Japan) reported for the GCS that there had been no voting or discussion in GCS between TC meetings.

3.3 FPD Metrology Korea TC Chapter

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

- The next TC Chapter meeting will be held on October 24, 2024.
- The followings will be adjudicated at the TC Chapter meeting.
 - Doc.# 6957D, Test Method for Response Time Evaluation of Displays with VARIABLE Refresh Rate
 - Doc.#7154, Test Method for Flicker of Flat Panel Display

Attachment: 03_Liaison report_FPDM_KR_Sept2024

3.4 FPD Metrology Taiwan TC Chapter

Akiko Yoshida (SEMI Japan) reported for the FPD Metrology Taiwan TC Chapter. Of note

- The last TC Chapter meeting was held on October 4, 2024 and the next TC Chapter meeting will be held on April 11, 2025.
- The following ballots were adjudicated at the TC Chapter meeting and passed.
 - Doc#7220, Reapproval of SEMI D59-0519, Terminology for 3D Display
 - Doc.#7221, Reapproval of SEMI D62-0619, Test Method for Measurement of LED Light Bar for Liquid Crystal Displays.
- The following SNARFs were approved and their ballot submission for Cycle 9 were authorized.
 - Doc.#7294, Reapproval of SEMI D65-0719, Test Method for Measurement for the Color Breakup of Field Sequential Color Display.
 - Doc.#7295, Reapproval of SEMI D68-0719, Test Method for Optical Properties of Electronic Paper Displays

Attachment: 04_FPD Taiwan Liaison Report_20241004_R1

4 SEMI Staff Report

Akiko Yoshida (SEMI Japan) gave the SEMI Staff Report. Of note:

- SEMICON West 2024 will be held in Phoenix, Arizona in October. From the following year, the venue of SEMICON West will alternate between Phoenix and San Francisco every October thereafter.
- Accordingly, the timing of NA Standards Meetings next year will be different than in the past.
- TFs have until 02/20/24 to implement use of Connect@SEMI (<https://connect.semi.org>) for TF management and document development depository. Once TFs have implemented use of Connect@SEMI, they shall use it to: maintain the TF member roster up to date, share the working drafts in PDF, and distribute the Draft Document at least one week before ballot submission to SEMI. Training materials for TF leaders and members (users) are available on the SEMI website.
- During SEMICON Japan 2024, the first ever global event “Global Standards Summit” will be held on Thursday, December 12 10:30-16:30 at International Conference Center at Tokyo Big Sight. This inaugural Summit aims to identify standards-critical areas and work towards an industry standardization strategy for the next 3- and 7-year time horizons, instead of addressing the current challenges.

Attachment: 05_Staff Report July 2024 v4_ay_R1

5 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.

5.1 FPD Materials & Components Japan TC Chapter

5.1.1 Doc.#7256, Reapproval to SEMI D19-1019, Test Method for the Determination of Chemical Resistance of Flat Panel Display Color Filters

- **Passed** the TC Chapter review as balloted. Refer to attachment below for full details.

5.1.2 Doc.#7257, Reapproval to SEMI D45-1019, Test Method for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter

- **Passed** the TC Chapter review as balloted. Refer to attachment below for full details.

5.1.3 Doc.# 7258, Line Item Revision to SEMI D46-1019, Terminology for FPD Polarizing Films

- Line Item 1 **passed** the TC Chapter review as balloted. Refer to attachment below for full details.

5.1.4 Doc.#7260, New Standard: Specification for Electrostatic Properties of FPD Photomasks and Blanks Package

- **Passed** the TC Chapter review as balloted. Refer to attachment below for full details.

5.1.5 Doc.#7259, Revision to SEMI D31-0318, with title change from Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality Inspection to Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality

- **Failed** and was returned to the TF for rework. Refer to attachment below for full details.

Attachment: 06_7256_Ballot Review

07_7257_Ballot Review

08_7258_Ballot Review

09_7260_Ballot Review

10_7259_Ballot Review

5.2 FPD Metrology Japan TC Chapter

None.

6 Task Force Reports

6.1 FPD Materials & Components Japan TC Chapter

6.1.1 Flexible Display Task Force

No report was provided.

6.1.2 FPD Mask Task Force

Keitaro Kondo (HOYA Corporation) reported for the FPD Mask Task Force. Of note:

- The TF met on August 8, 2024 and confirmed the draft document for New Standard: Specification for Electrostatic Properties of FPD Photomasks and Blanks Package. The TF also confirmed that the commonality between mask and blanks cases. From the viewpoint of cost, environment, and efficient use, the TF agreed to standardize common specifications of mask cases and blanks cases. One of the issues identified was materials of holder in the case.
- The TF met on October 10, 2024 and discussed common materials of blanks/ mask holder in the case.

Attachment: 11_240808 Minutes FPD_Mask_TF
12_241010 Minutes FPD_Mask_TF

6.1.3 FPD Materials & Components Maintenance Task Force

Refer to 5 Ballot Review.

6.2 FPD Metrology Japan TC Chapter

6.2.1 FPD Metrology Maintenance Task Force

Ryoichi Watanabe (Japan Display) reported for the FPD Metrology Maintenance TF. The TF submitted Doc.#7259 for Cycle 6. However, due to clerical error, the ballot was registered under the FPD Materials and Components GTC instead of FPD Metrology GTC. The TF decided to cast a reject vote and the ballot failed TC review (refer to 5 Ballot Review). The TF will submit Doc.#7259A for Cycle 9 under the FPD Metrology GTC.

Motion: Authorize Doc.#7259A Letter Ballot submission for Cycle 9 under the FPD Metrology GTC.

By / 2nd: By: Keizo Ochi/ Kei techno research.
Second: Akira Kawaguchi (Otsuka Electronics)

Discussion: None.

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

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

No document is subject for 5-year review within this year.

7.2 FPD Metrology Japan TC Chapter

7.2.1 Project Period Review

No SNARF will be expiring soon.

7.2.2 5-Year Reviews

No document is subject for 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

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
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<i>FPD Metrology Japan TC Chapter</i>		
FPDMet_20240621-01	FPD Metrology Maintenance Task Force	To submit SEMI D31 Revision ballot for Cycle 6. →Closed



9.2 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<i>FPD Materials & Components Japan TC Chapter</i>		
FPDM&C_20241021_01	SEMI Staff	To forward the ballot adjudication result of Doc.#7256, 7257, 7258 and 7260 to the ISC A&R Subcommittee for procedural review.
<i>FPD Metrology Japan TC Chapter</i>		
FPDMet_20241021-01	FPD Metrology Maintenance Task Force	To submit Doc.#7259A, Revision to SEMI D31-0318, with title change from Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality Inspection to Guide for Definition of Measurement Index (DSemu) for Luminance Mura in FPD Image Quality for Cycle 9.

10 Next Meeting and Adjournment

FPD Materials & Components Japan TC Chapter and FPD Metrology Japan TC Chapter joint meeting will be held on Friday, February 7, 2025 3:00 PM - 5:00 PM JST via OVTCCM and at SEMI Japan, Tokyo, Japan.

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

Adjournment: [3:30 PM JST].



Respectfully submitted by:

Akiko Yoshida

Standards & EHS

SEMI Japan

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Minutes tentatively approved by:

<i>FPD Materials & Components Japan TC Chapter</i>	
Tadahiro Furukawa (Yamagata University), Co-chair	November 5, 2024
Ryoichi Watanabe (Japan Display), Co-chair	November 1, 2024
Toshimasa Eguchi (Sumitomo Bakelite), Co-chair	November 7, 2024
<i>FPD Metrology Japan TC Chapter</i>	
Ryoichi Watanabe (Japan Display), Co-chair	November 1, 2024
Akira Kawaguchi (Otsuka Electronics), Co-chair	November 5, 2024

Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
01_Required Meeting Elements March 2024_J	07_7257_Ballot Review
02_FPD M&C+FPD Met_JA_Mins_20240621_R1	08_7258_Ballot Review
03_Liaison report_FPDM_KR_Sept2024	09_7260_Ballot Review
04_FPD Taiwan Liaison Report_20241004_R1	10_7259_Ballot Review
05_Staff Report July 2024 v4_ay_R1	11_240808 Minutes FPD_Mask_TF
06_7256_Ballot Review	12_241010 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 Akiko Yoshida at the contact information above.