



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

(FPD Materials & Components Committee related parts approved)

Japan Standards Spring 2019 Meetings

Friday, May 31, 2019, 14:30-17:30

SEMI Japan office, Tokyo, Japan

TC Chapter Announcements

Next TC Chapter Meeting (Not to be held jointly)

<FPD Materials & Components>

Japan Standards Fall 2019 Meetings

September 6, Time to be decided

SEMI Japan office, Tokyo, Japan

<FPD Metrology>

Japan Standards Fall 2019 Meetings

November 2019, Date and Time to be decided

SEMI Japan office, Tokyo, Japan

Table 1 Meeting Attendees

Italics indicate virtual participants

<FPD Materials & Components> Co-Chairs: Tadahiro Furukawa (Yamagata University) / Yoshi Shibahara (FUJIFILM)

<FPD Metrology> Co-Chairs: Ryoichi Watanabe (Japan Display) / Akira Kawaguchi (Otsuka Electronics)

SEMI Staff: Chie Yanagisawa

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Corning	Okamura	Haruo	Nitto Denko	Tatsumi	Motoshige
FUJIFILM	Ishiduka	Hiroshi	Otsuka Electronics	Kawaguchi	Akira
FUJIFILM	Shibahara	Yoshi	Sony	Tomioka	Satoshi
Japan Display	Watanabe	Ryoichi	Yamagata University	Furukawa	Tadahiro
HOYA	Ihara	Hirofumi			
MORESCO	Uehigashi	Atsushi	SEMI Japan	Yanagisawa	Chie

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
< FPD Materials & Components >		
FPD Materials & Components Maintenance Task Force	Not applicable because the TF is newly formed.	Tadahiro Furukawa (Yamagata University) is appointed as a leader of the TF
<FPD Metrology>		
None		

Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
<FPD Materials & Components>	
None	FPD Materials & Components Maintenance Task Force is newly formed.
<FPD Metrology>	
None	

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
<FPD Materials & Components>		
6494	Line Item Revision to SEMI D19-0305 (Reapproved 0412): Test Method for The Determination of Chemical Resistance of Flat Panel Display Color Filters	
Line Item 1	Several references and the sentences referencing them to be revised.	
Line Item 2	To reformat to meet Section 3.2 of Procedure Manual	Passed as balloted
6495	Line Item Revision to SEMI D45-0706 (Reapproved 0412): “Measurement Methods for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter” with non-conforming title change to “Test Method for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter”	
Line Item 1	Correction of non-conforming title in accordance with Procedure Manual Appendix 4	
Line Item 2	To reformat the structure as to meet Section 3.2 of Procedure Manual	Passed as balloted
6499	Revision to SEMI D46-0213: Terminology for FPD Polarizing Films	Passed as balloted
<FPD Metrology>		
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>
<FPD Materials & Components>			
6499	SNARF	Polarizing Film TF	Revision to SEMI D46-0213: Terminology for FPD Polarizing Films
6499	Ballot Submission	Polarizing Film TF	Revision to SEMI D46-0213: Terminology for FPD Polarizing Films
<FPD Metrology>			
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>
<FPD Materials & Components>			

Table 6 Authorized Activities

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

#	Type	SC/TF/WG	Details
6547	SNARF	Flexible Display TF	New Standard: Test method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time
<FPD Metrology>			
None			

#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
<FPD Materials & Components>			
None			
<FPD Metrology>			
None			

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

#	TF	Title	Expiration Date
<FPD Materials & Components>			
None			
<FPD Metrology>			
None			

Table 9 SNARF(s) Abolished

#	TF	Title
<FPD Materials & Components>		
None		
<FPD Metrology>		
none		

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
<FPD Materials & Components>	
None	
<FPD Metrology>	
None	

Table 11 New Action Items

Item #	Assigned to	Details
<FPD Materials & Components>		
20190531-01	SEMI staff	To forward the ballots results passed at this meeting to A&R.

Table 11 New Action Items

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

Table 12 New Joint Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20190531-01	SEMI Japan staff	To send the discussion described in 7.3.1 of this meeting by the Japan TC Chapter of FPD Materials & Components GTC and the Japan TC Chapter of FPD Metrology GTC to SEMI Taiwan staff.

Table 13 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
<FPD Materials & Components>		
20190208-01	SEMI Staff	to distribute a new SNARF for Revision to D46-0213 for two weeks TC member review and forward it to the GCS members for approval and for authorization for the ballot submission.
20190208-02	SEMI Staff	to submit Ballot of Line Item Revision to SEMI D19-0305 (Reapproved 0412) and Ballot of Line Item Revision to SEMI D45-0706 (Reapproved 0412) for Cycle 3-2019
<FPD Metrology>		
20180528-01	SEMI Japan staff	To ask SEMI Korea staff who actually attended the FPD metrology Korea TC Chapter meeting held on April 13, 2018, because there are only two attendees recorded on the list of the FPD Metrology Korea TC Chapter meeting minutes held on April 13, 2018 and none of them are the chairs. In addition to that, no SEMI staff name is recorded in the minutes.

1 Welcome, Reminders, and Introductions

Tadahiro Furukawa (Yamagata University) called the meeting to order at 14:30. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01_SEMI Standards Required Elements_August2018_E+J

2 Review of Previous Meeting Minutes

FPD Materials & Components Japan TC Chapter reviewed the previous Japan TC Chapter meeting minutes held on February 8, 2019.

Motion:	Approve the previous meeting minutes as written
By / 2nd:	Yoshi Shibahara (FUJIFILM) / Hirofumi Ihara (HOYA)
Discussion:	None
Vote:	9-0

Attachment: 02_20190208_FPD-M&C_Japan_MeetingMinutes_Final

FPD Metrology Japan TC Chapter reviewed the previous Japan TC Chapter meeting minutes held on May 31, 2018.

Motion:	Approve the previous meeting minutes as written
By / 2nd:	Akira Kawaguchi (Otsuka Electronics) / Satoshi Tomioka (Sony)
Discussion:	None
Vote:	9-0

Attachment: 03_20180528_FPDMet-Japan_MeetingMinutes_Final

3 Liaison Reports

3.1 FPD Metrology Korea TC Chapter

Chie Yanagisawa (SEMI Japan) reported for the FPD Metrology Korea TC Chapter as attached.

Attachment: 04_KR_FPDM_2019May_v1.1

3.2 FPD Metrology Taiwan TC Chapter

Chie Yanagisawa (SEMI Japan) reported for the FPD Metrology Taiwan TC Chapter as attached.

Attachment: 05_20190412_TW FPD Liaison Report

3.3 SEMI Staff Report

Chie Yanagisawa (SEMI Japan) gave the SEMI Staff Report as attached. Of note:

- JRSC Update/Organization
- SEMI 通信 / SEMI Japan e-mail newsletter
- SEMI Global Calendar of Events
- Global Standards Meeting Schedule
- 2019 Critical Dates for SEMI Standards Ballots
- A&R Ballot Review
- SEMI Standards Publications
- Regulations and Procedure Manual
- Staff Assignment

Attachment: 06_SEMI Staff Report 2019_0530_v0.1

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 <FPD Materials & Components>

4.1.1 Document #6494: Line Item Revision to SEMI D19-0305 (Reapproved 0412): Test Method for The Determination of Chemical Resistance of Flat Panel Display Color Filters

4.1.1.1 Line Item #1: Several references and the sentences referencing them to be revised.

4.1.1.2 Line Item #2: To reformat to meet Section 3.2 of Procedure Manual

4.1.2 Document #6495: Line Item Revision to SEMI D45-0706 (Reapproved 0412): “Measurement Methods for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter” with non-conforming title change to “Test Method for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter”

4.1.2.1 Line Item #1: Correction of non-conforming title in accordance with Procedure Manual Appendix 4

4.1.2.2 Line Item #2: To reformat the structure as to meet Section 3.2 of Procedure Manual

4.1.3 Document # 6499: Revision to SEMI D46-0213: Terminology for FPD Polarizing Films

Action Item: 20190531-01: SEMI staff to forward the ballots results passed at this meeting to A&R.

Attachment: 07_#6494_BallotReport, 08_#6495_BallotReport, 09_#6499_BallotReport

4.2 <FPD Metrology>

None

5 Subcommittee and Task Force Reports

5.1 <FPD Materials & Components>

5.1.1 Flexible Display Task Force

Tadahiro Furukawa (Yamagata University) reported for the Task Force as follows.

- TF to propose a new SNARF at the New Business section of this meeting.

5.1.2 FPD Color Filter Task Force

Tadahiro Furukawa (Yamagata University) reported for the Task Force as follows.

- The following two ballots passed as balloted at this meeting. When they pass at the A&R, the TF discharge will be proposed at the next TC Chapter meeting.
 - Document #6494: Line Item Revision to SEMI D19-0305 (Reapproved 0412): Test Method for The Determination of Chemical Resistance of Flat Panel Display Color Filters
 - Document #6495: Line Item Revision to SEMI D45-0706 (Reapproved 0412): “Measurement Methods for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter” with non-conforming title change to “Test Method for Resistance of Resin Black Matrix with High Resistance for FPD Color Filter”

5.1.3 FPD Mask Task Force

Hirofumi Ihara (HOYA) reported for the Task Force as follows.

- The TF considered the following Standards for the 5-Year Review and to propose for the next action at the next TC Chapter meeting.
 - D20: Reapproval
 - D21: Reapproval
 - D42: Major Revision

- D53: Major Revision

5.1.4 Polarizing Film Task Force

Motoshige Tatsumi (Nitto Denko) reported for the Task Force as follows.

- The following ballot passed as balloted at this meeting
 - Document # 6499: Revision to SEMI D46-0213: Terminology for FPD Polarizing Films
- TF leader introduced ideas for potential future activities.

5.2 <FPD Metrology>

None

6 Old Business

6.1 <FPD Materials & Components>

6.1.1 5 Year Review

The TC Chapter reviewed the list for Standards published in 2015. Future actions for the five Standards by the FPD Mask TF were mentioned at the TF Report section of this meeting. Tadahiro Furukawa (Yamagata University) addressed the committee on this topic.

- SEMI D9: Terminology for FPD Substrates
 - Originally developed by FPD Factory Automation
 - To propose Reapproval for this document at the next TC Chapter meeting.

6.2 <FPD Metrology>

None

7 New Business

7.1 <FPD Materials & Components>

7.1.1 New SNARF proposal

Tadahiro Furukawa (Yamagata University) addressed the committee on this topic. Atsushi Uehigashi (MORESCO) explained the SNARF and the TC Chapter reviewed it.

- The SNARF draft was distributed for the TC Member Review from May 14, 2019 to May 27, 2019.

Motion:	Approve the SNARF for New Standard: Test method for Measurement of Water Vapor Transmission Rate for High Gas Barrier Plastic Film in a Short Time
By / 2nd:	Atsushi Uehigashi (MORESCO) / Ryoichi Watanabe (Japan Display)
Discussion:	None
Vote:	9-0 Motion passed

7.1.2 New Task Force proposal

Tadahiro Furukawa (Yamagata University) addressed the committee on this topic. The TC Chapter reviewed the TFOF.

Motion:	Approve TFOF of FPD Materials & Components Maintenance TF
By / 2nd:	Ryoichi Watanabe (Japan Display) / Yoshi Shibahara (FUJIFILM)
Discussion:	None
Vote:	9-0 Motion passed

7.2 <FPD Metrology>

None

7.3 < FPD Materials & Components Japan TC Chapter & FPD Metrology Japan TC Chapter joint topic>

7.3.1 Discussion on SNARF (Draft) for Test Method of Sheet Resistance Imaging by Terahertz System by Flexible Display TF under the Taiwan TC Chapter of FPD Metrology

Ryoichi Watanabe (Japan Display) addressed the committee on this topic. Both TC Chapters reviewed the SNARF draft and discussed as follows. Of note:

- The SNARF draft
 - Title: New Standard: Test Method of Sheet Resistance Imaging by Terahertz System
 - By Flexible Display TF under the Taiwan TC Chapter of FPD Metrology GTC
 - Distributed for TC member review from 03/19/2019 to 04/02/2019
- Feedback to the SNARF draft was sent saying the proposed SNARF focuses on material issue, which is out of scope of the FPD Metrology GTC.

The TC Chapters jointly reached the conclusion that the discussion with the following recommendation by the Japan TC Chapters will be sent to the Taiwan TF and the Staff.

- To form the Taiwan TC Chapter under FPD Materials & Components Global Technical Committee

Joint Action Item: **20190531-01**, SEMI Japan staff to send the discussion described in 7.3.1 of this meeting by the Japan TC Chapter of FPD Materials & Components GTC and the Japan TC Chapter of FPD Metrology GTC to SEMI Taiwan staff.

Attachment: 10_SNARF(draft)_TestMethod_SheetResistanceImaging,
11_Discussion_TW_SNARF_TestMethod_SheetResistanceImaging r 20190609

8 Next Meeting and Adjournment

The next meeting is not jointly held. The meetings are scheduled as follows. See <http://www.semi.org/standards-events> for the current list of events.

- <FPD Materials & Components>
 - Japan Standards Fall 2019 Meetings
 - September 6, Time to be decided
 - SEMI Japan office, Tokyo, Japan



- <FPD Metrology>
 - Japan Standards Fall 2019 Meetings
 - November 2019, Date and Time to be decided
 - SEMI Japan office, Tokyo, Japan

Adjournment: 17:30.



Respectfully submitted by:

Chie Yanagisawa

Manager

SEMI Japan

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Minutes tentatively approved by:

Tadahiro Furukawa (Yamagata University), <FPD Materials & Components> Co-chair	August 7, 2019
Yoshi Shibahara (FUJIFILM), <FPD Materials & Components> Co-chair	August 6, 2019
Ryoichi Watanabe (Japan Display), <FPD Metrology> Co-chair	August 7, 2019
Akira Kawaguchi (Otsuka Electronics), <FPD Metrology> Co-chair	August 7, 2019

Table 14 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
01_SEMI Standards Required Elements_August2018_E+J	07_#6494_BallotReport
02_20190208_FPD-M&C_Japan_MeetingMinutes_Final	08_#6495_BallotReport
03_20180528_FPDMet-Japan_MeetingMinutes_Final	09_#6499_BallotReport
04_KR_FPDM_2019May_v1.1	10_SNARF(draft)_TestMethod_SheetResistanceImaging
05_20190412_TW FPD Liaison Report	11_Discussion_TW_SNARF_TestMethod_SheetResistanceImaging r 20190609
06_SEMI Staff Report 2019_0530_v0.1	

^{#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 [SEMI Staff Name] at the contact information above.