



# FHE Japan TC Chapter

## Meeting Summary and Minutes

Tuesday, October 15, 2024 16:00-17:30 JST  
 TOYOBO, Shiga, Japan (Hybrid)/ Official Virtual TC Chapter Meeting (OVTCCM)

### TC Chapter Announcements

*Next TC Chapter Meeting:*

January 31, 2025 15:30- 17:00 JST at SEMI Japan, Tokyo, Japan and via OVTCCM

### Table 1 Meeting Attendees

*Italics indicate virtual participants.*

**FHE TC Co-Chairs:** Tadahiro Furukawa (Yamagata University), Ryoichi Watanabe (Japan Display)/ Satoshi Maeda (University of Tokyo)

**SEMI Staff:** Akiko Yoshida (SEMI Japan)

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
AiQ Smart Clothing	Huang	Steve	Toppan	Ito	Manabu
Advanced Semiconductor Engineering	Chen	Oudi	TOYOBO	Takahashi	Yuji
Fujikura Kasei	Wakabayashi	Katsutomo	University of Tokyo	Maeda	Satoshi
Innolux	Nakagawa	Takanobu	Yamagata University	Furukawa	Tadahiro
Japan Display	Watanabe	Ryoichi	<i>SEMI Japan</i>	<i>Hirabara</i>	<i>Takeaki</i>
Kei Techno Research	Ochi	Keizo	<i>SEMI Japan</i>	<i>Kamejinaka</i>	<i>Keiko</i>
Komori Corporation	Ikeda	Hideki	<i>SEMI Japan</i>	<i>Kanno</i>	<i>Hirofumi</i>
Otsuka Electronics	Kawaguchi	Akira	SEMI Japan	Yoshida	Akiko

### Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
Noe		

### 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>
FH4-0724	Test Method and Guide for the Tactile Characteristics of Flexible Hybrid Electronics Materials and Products (Unballoted editorial changes)	<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
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
None			

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

#	TF	Title	Expiration Date
6906	FHE Terminology TF	New Standard, Terminology for Flexible Hybrid Electronics (FHE)	2026/01/14

**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
FHE_20241015_01	SEMI Staff	To forward the result of TC review of Type 2 editorial changes of SEMI FH4 to the ISC A&R SC for procedural review.

**Table 12 Previous Meeting Action Items**

Item #	Assigned to	Details
FHE_20240705_01	SEMI Staff	To setup Connect@SEMI site for the FHE Maintenance Task Force. →Closed

## 1 Welcome, Reminders, and Introductions

Tadahiro Furukawa called the meeting to order at 16:00. 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 FHE Japan TC Chapter reviewed the minutes of the previous meeting.

**Motion:** Approve the minutes for the previous FHE Japan TC Chapter meeting as written.

**By / 2<sup>nd</sup>:** By: Ryoichi Watanabe/ Japan Display  
Second: Satoshi Maeda/ University of Tokyo

**Discussion:** None.

**Vote:** 11-Y 0-N. Motion Passed.

**Attachment:** 02\_FHE\_JA\_Minutes\_20240705\_R1

## 3 Liaison Reports

### 3.1 FHE Taiwan TC Chapter

Steve Huang (AiQ Smart Clothing) reported for the FHE Taiwan TC Chapter. Of note:

- The activities under the TC Chapter have been inactive than before.
- There is a special interest group (SIG) focusing on health care within SEMI Taiwan (re: SMART MedTech). There has been active discussion on bio-inspired design. Issues and ideas identified by the SIG will be considered for inclusion in future activities by the TFs of the SEMI Standards FHE Taiwan TC Chapter.

**Attachment:** 03\_TW FHE TC Chapter Liaison Report\_Oct 4 v1  
04\_Semi FHE TC discussion

### 3.2 FHE NA TC Chapter

Akiko Yoshida (SEMI Japan) reported for the FHE NA TC Chapter that there had been no updates from the previous meeting. Current document development activities were summarized as attached.

**Attachment:** 05\_NA FHE Liaison Report Update\_Sept2024 v1

## 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 FHE Standards session will be held on Wednesday, December 11 13:00-14:00 at Exhibitor's TechSpot in Hall 5 at Tokyo Bigsight in cooperation with FHE Japan TC Chapter. Activities

of the FHE Technical Committee, trends in FHE Standards, and the recently published SEMI FH4 will be introduced in the session.

- Also, 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 Bigsight. 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:** 06\_Staff Report July 2024 v4\_ay\_R1

## 5 Ballot Review

None.

## 6 Task Force Reports

### 6.1 FHE Terminology Task Force

Tadahiro Furukawa (Yamagata University) reported for the FHE Terminology TF that the TF met just before the TC Chapter meeting. The first draft of the Terminology standard in English is not yet ready. The TF will continue to work on drafting the document by expanding the project period.

**Motion:** Approve a 1 year extension of the project period for the SNARF 6906.

**By / 2<sup>nd</sup>:** By: Satoshi Maeda/ University of Tokyo  
Second: Ryoichi Watanabe/ Japan Display

**Discussion:** None.

**Vote:** 11-Y 0-N. Motion Passed.

### 6.1.1 Tactile Texture Characteristics for FHE Task Force

Tadahiro Furukawa (Yamagata University) reported for the Tactile Texture Characteristics for FHE TF that SEMI FH4-0724, Test Method and Guide for the Tactile Characteristics of Flexible Hybrid Electronics Materials and Products was finally published in July 2024. In the process of proofreading of the document, it was found out that editorial change (Type 2) should be made to clarify the technical meaning. Based on the discussion, Mari Inoue (Kobe University) prepared the Publication Change Request (PCR) to address those Type 2 editorial changes for review in the TC meeting.

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

**By / 2<sup>nd</sup>:** By: Satoshi Maeda/ University of Tokyo  
Second: Ryoichi Watanabe/ Japan Display

**Discussion:** None.

**Vote:** 11-Y 0-N. Motion Passed.

**Attachment:** 07\_PCR Form\_v2 Oct 2022 (Inoue)\_R1  
08\_Procedural Review\_Editorial Changes\_FH4

## 7 Old Business

### 7.1 Project Period Review

No SNARF will be expiring soon.

### 7.2 5-year Review

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



## 8 New Business

None.

## 9 Action Item Review

### 9.1 Open Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
FHE_20240705_01	SEMI Staff	To setup Connect@SEMI site for the FHE Maintenance Task Force. →Closed

### 9.2 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
FHE_20241015_01	SEMI Staff	To forward the result of TC review of Type 2 editorial changes of SEMI FH4 to the ISC A&R SC for procedural review.

## 10 Next Meeting and Adjournment

The next meeting is scheduled for Friday, January 31, 2025 15:30- 17:00 JST at SEMI Japan, Tokyo, Japan and via Official Virtual TC Chapter Meeting.

Adjournment: [17:30].



Respectfully submitted by:

Akiko Yoshida

Standards & EHS

SEMI Japan

Phone: +81-3-3222-5863

Email: ayoshida@semi.org

Minutes tentatively approved by:

Tadahiro Furukawa (Yamagata University), Co-chair	October 29, 2024
Ryoichi Watanabe (Japan Display, Co-chair	October 28, 2024
Satoshi Maeda (TOYOBO), Co-chair	October 28, 2024

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

<i>Title</i>	<i>Title</i>
01_ Required Meeting Elements March 2024_J	05_ NA FHE Liaison Report Update_Sept2024 v1
02_ FHE_JA_Minutes_20240705_R1	06_ Staff Report July 2024 v4_ay_R1
03_ TW FHE TC Chapter Liaison Report_Oct 4 v1	07_ PCR Form_v2 Oct 2022 (Inoue)_R1
04_ Semi FHE TC discussion	08_ Procedural Review_Editorial Changes_FH4

#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 Akiko Yoshida at the contact information above.