



Physical Interfaces & Carriers Japan TC Chapter

Meeting Summary and Minutes (draft)

Japan Standards Fall 2020 Meetings

Thursday, September 10, 2020, 10:00-16:00

SEMI Japan office, Tokyo, Japan

TC Chapter Announcements

Next TC Chapter Meeting

Date & Time: TBD

Venue: TBD

Table 1 Meeting Attendees

Co-Chairs: Tsuyoshi Nagashima (Miraial), Daisuke Sado (DAIHEN Corporation), Yasuhisa Ito (Murata Machinery)

SEMI Staff: Chie Yanagisawa (SEMI Japan)

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Acteon NEXT	Komatsu	Shoji	Shin-Etsu Polymer	Fukunaga	Tsukasa
DAIFUKU	Suzuki	Tomoko	Shin-Etsu Polymer	Shida	Hiroyuki
DAIFUKU	Yamagata	Kenji	Sinfonia Technologies	Koike	Masato
Daihen	Sado	Daisuke	Sinfonia Technologies	Otani	Mikio
DISCO	Kobinata	Kyosuke	Sinfonia Technologies	Suzuki	Atsushi
ESWIN	Qingde	Long	Sinfonia Technologies	Ochiai	Mitsutoshi
Hirata Corporation	Toyoda	Noriyoshi	Sony Semiconductor Solutions	Goto	Hisashi
JEOL	Asayama	Kyoichiro	Tokyo Electron	Mashiro	Supika
Kokusai Electric	Matsuda	Mitsuhiro	Tokyo Seimitsu	Taniguchi	Naomune
Marubeni Plax	Igeta	Yasuo	ZAMA Consulting	Sakamoto	Mitsune
Miraial	Nagashima	Tsuyoshi	Consultant	Akutagawa	Chieko
Murata Machinery	Ito	Yasuhisa	SEMI Japan	Yanagisawa	Chie

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
PI&C Japan TC Chapter	Noriyoshi Toyoda (Hirata Corporation) stepped down for the co-chair. Tsuyoshi Nagashima (Miraial) and Daisuke Sado (DAIHEN Corporation) remain.	Yasuhisa Ito (Murata Machinery) has been newly appointed by the JRSC at the meeting on August 29, 2020.

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>
6618	New Standard: Specification for Panel FOUP for Panel Level Packaging	Passed with technical changes
6619	New Subordinate Standard: Specification for Panel FOUP for 510 mm-515 mm Panel Size and 12 Slots	Passed with technical changes
6620	New Subordinate Standard: Specification for Panel FOUP for 510 mm-515 mm Panel Size and 6 Slots	Passed with technical changes
6621	New Subordinate Standard: Specification for Panel FOUP for 600 mm-600 mm Panel Size and 12Slots	Passed with technical changes
6622	New Subordinate Standard: Specification for Panel FOUP for 600 mm-600 mm Panel Size and 6 Slots	Passed with technical changes
6617	New Standard: Specification For 300mm Tape Frame FOUP	Failed and work will be discontinued Note: SNARF 6617 was withdrawn and a new SNARF to be proposed later.

Note 1: **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

Note 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 prior to the Originating TC Chapter meeting

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
6617	Ballot Submission	300 mm Tape Frame PI&C TF	New Standard - Specification for 300 mm Tape Frame FOUP

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>
6684	New SNARF	Panel Level Packaging (PLP) Panel FOUP TF	New Standard - Specification for Panel FOUP Loadport For Panel Level Packaging
6685	New SNARF	Panel Level Packaging (PLP) Panel FOUP TF	New Subordinate Standard - Specification for Panel FOUP Loadport for 510mm-515mm Panel Size
6686	New SNARF	Panel Level Packaging (PLP) Panel FOUP TF	New Subordinate Standard - Specification for Panel FOUP Loadport for 600mm-600mm Panel Size

Note 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
6684	Cycle 8-2020	Panel Level Packaging (PLP) Panel FOUP TF	New Standard - Specification for Panel FOUP Loadport for Panel Level Packaging
6685	Cycle 8-2020	Panel Level Packaging (PLP) Panel FOUP TF	New Subordinate Standard - Specification for Panel FOUP Loadport for 510mm-515mm Panel Size
6686	Cycle 8-2020	Panel Level Packaging (PLP) Panel FOUP TF	New Subordinate Standard - Specification for Panel FOUP Loadport for 600mm-600mm Panel Size

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

#	TF	Title	Expiration Date
None			

Table 9 SNARF(s) Abolished

#	TF	Title
6617	300 mm Tape Frame PI&C TF	New Standard: Specification for 300mm Tape Frame FOUP
6521	300 mm Tape Frame PI&C TF	New Standard: Specification for 300mm Tape Frame FOUP Load Port
6522	300 mm Tape Frame PI&C TF	New Standard: Specification for Bolts Of 300mm Tape Frame FOUP Load Port
6523	300 mm Tape Frame PI&C TF	New Standard: Specification for Front Opening Interface between 300mm Tape Frame FOUP and Load Port
6524	300 mm Tape Frame PI&C TF	New Standard: Specification for Indicator Placement Zone and Switch Placement Volume of 300mm Tape Frame FOUP Load Port
6486	Panel Level Packaging (PLP) Panel FOUP TF	New Standard - Specification for Panel FOUP Loadport For Panel Level Packaging

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
None	

Table 11 New Action Items

Item #	Assigned to	Details
none		

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20190418-02	300 mm Tape Frame PI&C TF	to consider and discuss if those four SNARFs related to Load Port could be into one. -> OPEN
20191211-01:	Shoji Komatsu (Acteon NEXT)	to review SEMI E92 and to propose the next step for the document by the next PIC Japan TC Chapter meeting to be held in 2020 spring. > OPEN
20191211-02:	Noriyoshi Toyoda (Hirata)	to remind Yasuhisa Ito (Murata Machinery) of being ready for his approval at the next JRSC meeting in April 2020. > CLOSE



1 Welcome, Reminders, and Introductions

Yasuhisa Ito (Murata Machinery) called the meeting to order at 10:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01-02_SEMI Standards Required Elements_June2020_E+J

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting held on September 20, 2019.

Motion:	Approve the previous meeting minutes as written
By / 2nd:	Naomune Taniguchi (Tokyo Seimitsu) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

Attachment: 02-00_20191211_PI&C-Japan_MeetingMinutes_Final

3 Liaison Reports

3.1 Physical Interfaces & Carriers Europe TC Chapter

Chie Yanagisawa (SEMI Japan) reported for the Physical Interfaces & Carriers Europe TC Chapter that there is no activity.

3.2 North America Japan TC Chapter

Chie Yanagisawa (SEMI Japan) reported for the Physical Interfaces & Carriers NA TC Chapter that there is no update because no TC Chapter meeting was held due to COVID-19.

3.3 SEMI Staff Report

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

- SEMI Japan Staff Assignment
- SEMI Global Calendar of Events
- Critical Dates for SEMI Standards Ballots
- SEMI Standards Publications
- Connected@semi
- Regulations and Procedure Manual Update

Attachment: 04-00_Staff Report August 2020_v1

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 Document #6618: New Standard: Specification for Panel FOUF for Panel Level Packaging

- **Passed** with technical changes
- 4.2 Document #6619: New Subordinate Standard: Specification for Panel FOUN for 510 mm-515 mm Panel Size and 12 Slots
- **Passed** with technical changes
- 4.3 Document #6620: New Subordinate Standard: Specification for Panel FOUN for 510 mm-515 mm Panel Size and 6 Slots
- **Passed** with technical changes
- 4.4 Document #6621: New Subordinate Standard: Specification for Panel FOUN for 600 mm-600 mm Panel Size and 12Slots
- **Passed** with technical changes
- 4.5 Document #6622: New Subordinate Standard: Specification for Panel FOUN for 600 mm-600 mm Panel Size and 6 Slots
- **Passed** with technical changes
- 4.6 Document #6617: New Standard: Specification For 300mm Tape Frame FOUN
- Failed and work will be discontinued
 - Note: SNARF 6617 was withdrawn and a new SNARF to be proposed later.

Chie Yanagisawa (SEMI Japan) added the Ratification Ballots of #6618-#6622 will be submitted for Cycle 8.

Attachment: 05-01-01_#6618_BallotReport_SEP08_r3, 05-01-02_#6619_BallotReport_SEP08_r1_sk_r3, 05-01-03_#6620_BallotReport_SEP08_sk_r3, 05-01-04_#6621_BallotReport_SEP08_sk_r3, 05-01-05_#6622_BallotReport_SEP08_sk_r3, 05-02_#6617_BallotReport_r1

5 Subcommittee and Task Force Reports

5.1 300 mm Tape Frame PI&C TF

Naonume Taniguchi (Tokyo Seimitsu) reported for 300 mm Tape Frame PI&C Task Force as attached material. Of note:

- The following ballot was reviewed and failed at Ballot Review section of this meeting
 - #6617: New Standard - Specification for 300mm Tape Frame FOUN
- The withdrawal of the following SNARFs will be proposed at New Business section of this meeting
 - #6617: New Standard - Specification for 300mm Tape Frame FOUN
 - #6521: New Standard - Specification for 300mm Tape Frame FOUN Load Port
 - #6522: New Standard - Specification for Bolts Of 300mm Tape Frame FOUN Load Port
 - #6523: New Standard - Specification for Front Opening Interface between 300mm Tape Frame FOUN and Load Port
 - #6524: New Standard - Specification for Indicator Placement Zone and Switch Placement Volume of 300mm Tape Frame FOUN Load Port
- The following SNARFs will be distributed for Two-Weeks TC Member Review and then TF will forward them for GCS approval
 - New Standard - Specification for 300mm Tape Frame FOUN Load Port

- New Standard – Specification for 300mm Tape Frame FOUP

He added that the new SNARF for “New Standard - Specification for 300mm Tape Frame FOUP Load Port” could address to Action Item: 20190418-02: 300 mm Tape Frame PI&C TF to consider and discuss if those four SNARFs related to Load Port could be into one.

Attachment: 06-01_20200910_300mm Tape Frame PIC TF_ActivityReports

5.2 *Global PIC Standards Maintenance TF*

Shoji Komatsu (Acteon NEXT) reported for the Global PIC Standards Maintenance Task Force as follows.

- For 5-year-review, the following document to be reviewed by the next PIC Japan TC Chapter meeting.
 - SEMI E92-0302E (Reapproved 0615): Specification for 300 mm Light Weight and Compact Box Opener/Loader to Tool-Interoperability Standard (Bolts/Light)

5.3 *Japan Electron Microscopy (EM) Workflow liaison TF*

Kyoichiro Asayama (JEOL) reported for the Japan EM Workflow Liaison Task Force reported as attached.

Attachment: 06-03_200910_EMWF Liaison TF_PI&C

5.4 *Panel Level Packaging Panel FOUP TF*

Shoji Komatsu (Acteon NEXT) reported that for the Panel Level Packaging Panel FOUP Task Force as attached material. Of note:

- The following five ballots were reviewed and passed with technical change at Ballot Review section of this meeting. Those ratification ballots will be submitted in Cycle 8.
 - #6618: New Standard: Specification for Panel FOUP for Panel Level Packaging
 - #6619: New Subordinate Standard: Specification for Panel FOUP for 510 mm-515 mm Panel Size and 12 Slots
 - #6620: New Subordinate Standard: Specification for Panel FOUP for 510 mm-515 mm Panel Size and 6 Slots
 - #6621: New Subordinate Standard: Specification for Panel FOUP for 600 mm-600 mm Panel Size and 12Slots
 - #6622: New Subordinate Standard: Specification for Panel FOUP for 600 mm-600 mm Panel Size and 6 Slots
- The withdrawal of the following SNARF will be proposed at New Business section of this meeting.
 - #6486: New Standard - Specification for Panel FOUP Loadport For Panel Level Packaging
- The following three new SNARFs were distributed for Two Weeks TC Member Review from August 7 through August 20 and the proposal for New SNARFs approval will be made at New Business section of this meeting
 - New Standard - Specification for Panel FOUP Loadport For Panel Level Packaging
 - New Subordinate Standard - Specification for Panel FOUP Loadport for 510mm-515mm Panel Size
 - New Subordinate Standard - Specification for Panel FOUP Loadport for 600mm-600mm Panel Size

Attachment: 06-04_Panel FOUP TF report_20200910

5.5 (Liaison: 3D Packaging & Integration JA TC Chapter) Panel Level Packaging Glass Carrier TF

Hiroyuki Shida (Shin-Etsu Polymer) reported for the task force as follows.

- TF meeting is held monthly.
- The following ballot will be submitted for Cycle 8
 - #6590: New Standard: Specification for Glass Carrier Characteristics for Panel Level Packaging (PLP) Applications

5.6 [Liaison: 3D Packaging & Integration NA TC Chapter] Panel Level Packaging (PLP) Panel TF

Shoji Komatsu (Acteon NEXT) reported that Panel Level Packaging Panel TF is working on the following document.

- Document #6591 Revision to SEMI 3D20-0719, Specification for Panel Characteristics for Panel Level Packaging (PLP) Applications”

5.7 (Silicon Wafer Japan TC Chapter) JA Shipping Box TF

Shoji Komatsu (Acteon NEXT) reported that there is no activity.

5.8 (Silicon Wafer Japan TC Chapter / PI&C NA TC Chapter) International 450mm Shipping Box TF

Shoji Komatsu (Acteon NEXT) reported that there is no activity.

6 Old Business

6.1 Project period Review

Chie Yanagisawa (SEMI Japan) reported that there are six SNARFs under the Japan TC Chapter and the oldest SNARF was initially approved in December 2018.

6.2 5-Year Review

As reported at Global Maintenance PIC TF report of this meeting, the following document is due for 5-Year Review and the leader in Japan to propose the next step for the document.

- SEMI E92-0302E (Reapproved 0615): Specification for 300 mm Light Weight and Compact Box Opener/Loader to Tool-Interoperability Standard (Bolts/Light)

The following action item is open.

- **Action Item: 20191211-01:** Shoji Komatsu (Acteon NEXT) to review SEMI E92 and to propose the next step for the document by the next PIC Japan TC Chapter meeting to be held in 2020 spring.

7 New Business

7.1 Proposal from 300 mm Tape Frame PI&C TF

Naomune Taniguchi (Tokyo Seimitsu) proposed for the following items.

7.1.1 #6617: SNARF for: New Standard: Specification for 300mm Tape Frame FOUN

Motion:	Withdraw #6617: SNARF for: New Standard: Specification for 300mm Tape Frame FOUN
By / 2nd:	Naomune Taniguchi (Tokyo Seimitsu) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	New SNARF for New Standard: Specification for 300mm Tape Frame FOUN with different scope to be proposed later.
Vote:	6 in favor and 0 opposed. Motion passed.

7.1.2 #6521: SNARF for New Standard: Specification for 300mm Tape Frame FOUN Load Port

Motion:	Withdraw #6521: SNARF for New Standard: Specification for 300mm Tape Frame FOUN Load Port
By / 2nd:	Naomune Taniguchi (Tokyo Seimitsu) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

7.1.3 #6522: SNARF for New Standard: Specification for Bolts Of 300mm Tape Frame FOUN Load Port

Motion:	Withdraw #6522: SNARF for New Standard: Specification for Bolts Of 300mm Tape Frame FOUN Load Port
By / 2nd:	Naomune Taniguchi (Tokyo Seimitsu) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

7.1.4 #6523: SNARF for New Standard: Specification for Front Opening Interface between 300mm Tape Frame FOUN and Load Port

Motion:	Withdraw #6523: New Standard: Specification for Front Opening Interface between 300mm Tape Frame FOUN and Load Port
By / 2nd:	Naomune Taniguchi (Tokyo Seimitsu) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

7.1.5 #6524: SNARF for New Standard: Specification for Indicator Placement Zone and Switch Placement Volume of 300mm Tape Frame FOUN Load Port

Motion:	Withdraw #6524: New Standard: Specification for Indicator Placement Zone and Switch Placement Volume of 300mm Tape Frame FOUN Load Port
By / 2nd:	Naomune Taniguchi (Tokyo Seimitsu) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion passed.

7.2 Proposal from Panel Level Packaging (PLP) Panel FOUF TF

Shoji Komatsu (Acteon NEXT) proposed for the following items.

7.2.1 #6486: New Standard - Specification for Panel FOUF Loadport For Panel Level Packaging

Motion:	Withdraw #6486: New Standard - Specification for Panel FOUF Loadport For Panel Level Packaging
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	none
Vote:	6 in favor and 0 opposed. Motion passed.

7.2.2 New Standard - Specification for Panel FOUF Loadport For Panel Level Packaging

Motion:	Approve the new SNARF for New Standard - Specification for Panel FOUF Loadport For Panel Level Packaging
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	6 in favor and 0 opposed. Motion passed.

Motion:	Authorize Ballot submission for Cycle 8 for New Standard - Specification for Panel FOUF Loadport For Panel Level Packaging
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	6 in favor and 0 opposed. Motion passed.

7.2.3 New Subordinate Standard - Specification for Panel FOUF Loadport for 510mm-515mm Panel Size

Motion:	Approve the new SNARF for New Subordinate Standard: Specification for Panel FOUF for 510 mm-515 mm Panel Size and 12 Slots
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	6in favor and 0 opposed. Motion passed.

Motion:	Authorize Ballot submission for Cycle 8 for New Subordinate Standard: Specification for Panel FOUF for 510 mm-515 mm Panel Size and 12 Slots
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	6in favor and 0 opposed. Motion passed.

7.2.4 New Subordinate Standard - Specification for Panel FOUF Loadport for 600mm-600mm Panel Size

Motion:	Approve the New SNARF for New Subordinate Standard: Specification for Panel FOUF for 600 mm-600 mm Panel Size and 6 Slots
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	6in favor and 0 opposed. Motion passed.



Motion:	Authorize Ballot submission for Cycle 8 for New Subordinate Standard: Specification for Panel FOUP for 600 mm-600 mm Panel Size and 6 Slots
By / 2nd:	Shoji Komatsu (Acteon NEXT) / Tsukasa Fukunaga (Shin-Etsu Polymer)
Discussion:	None
Vote:	6in favor and 0 opposed. Motion passed.

7.3 Announcement of New Co-chair

Chie Yanagisawa (SEMI Japan) made an announcement that Yasuhisa Ito (Murata Machinery) was appointed by the JRSC at the meeting held in April 2020 after Noriyoshi Toyoda (Hirata) stepped down

8 Action Item Review

8.1 Open Action Items

Action Item: 20190418-02: 300 mm Tape Frame PI&C TF to consider and discuss if those four SNARFs related to Load Port could be into one.

-> OPEN

Action Item: 20191211-01: Shoji Komatsu (Acteon NEXT) to review SEMI E92 and to propose the next step for the document by the next PIC Japan TC Chapter meeting to be held in 2020 spring.

-> OPEN

8.2 New Action Items

The TC Chapter found no action items of this meeting.

9 Next Meeting and Adjournment

The next meeting is to be decided.

Having no further business, a motion was made to adjourn. Adjournment was at 16:00.



Respectfully submitted by:

Chie Yanagisawa

Manager

SEMI Japan

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Minutes tentatively approved by:

Tsuyoshi Nagashima (Mirai), Co-chair	MMDD, 2020
Daisuke Sado (Daihen), Co-chair	MMDD, 2020
Yasuhisa Ito (Murata Machinery), Co-chair	MMDD, 2020

Table 13 Index of Available Attachments#1

<i>Title</i>	<i>Title</i>
01-02_SEMI Standards Required Elements_June2020_E+J	05-01-04_#6621_BallotReport_SEP08_sk_r3
02-00_20191211_PI&C-Japan_MeetingMinutes_Final	05-01-05_#6622_BallotReport_SEP08_sk_r3
04-00_Staff Report August 2020_v1	05-02_#6617_BallotReport_r1
05-01-01_#6618_BallotReport_SEP08_r3	06-01_20200910_300mm Tape Frame PIC TF_ActivityReports
05-01-02_#6619_BallotReport_SEP08_r1_sk_r3	06-03_200910_EMWF Liaison TF_PI&C
05-01-03_#6620_BallotReport_SEP08_sk_r3	06-04_Panel FOUP TF report_20200910

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 Chie Yanagisawa at the contact information above.