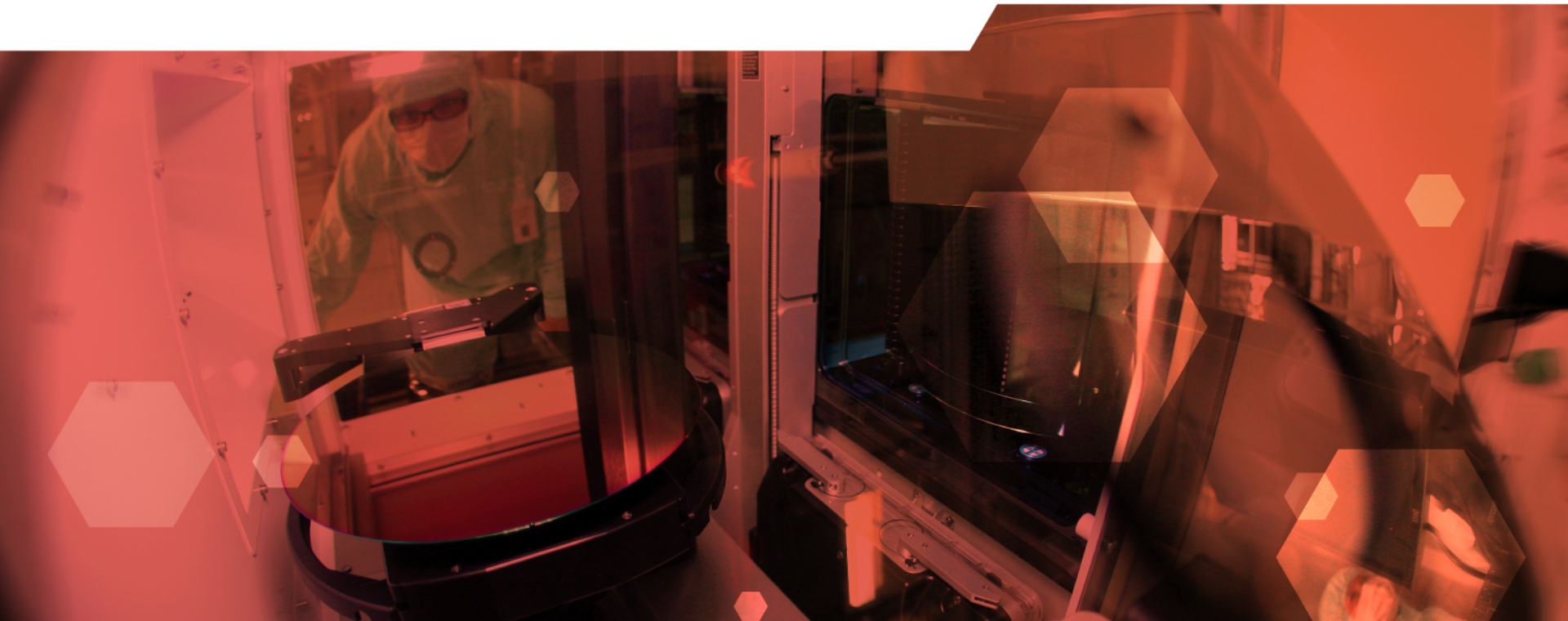


# Panel Level Packaging Panel FOUP TF Report

April 3, 2019



## TF Leader & Sub-team activity

- TF co-leader
  - John Rudolph(Intel)
  - Shoji Komatsu (Acteon NEXT)
- FOUP Team
  - Leader : Tsukasa Fukunaga(SEP)
  - Make a proposal for discussion based on SEMI E158.
- Loadport/EFEM Team
  - Leader : Kiyoshi Kanashiro(TDK)
  - Make a proposal for discussion based on SEMI E154.

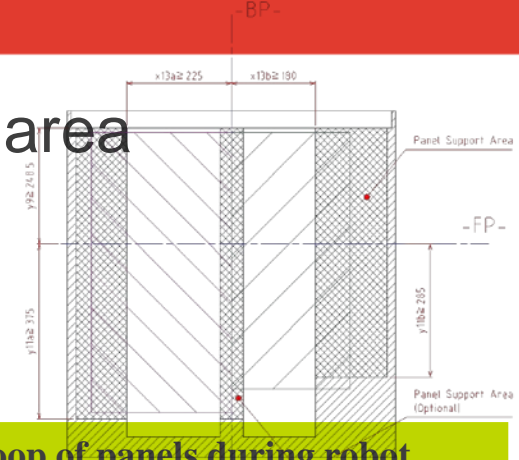
## TF meeting schedule

- 1<sup>st</sup> TF meeting May 17, 2018 @SEMI Japan
- 2<sup>nd</sup> TF meeting June 19, 2018 @SEMI Japan
- 3<sup>rd</sup> TF meeting July 20, 2018 @SEMI Japan
- 4<sup>th</sup> TF meeting Aug 20, 2018 @Daihen Kobe
- 5<sup>th</sup> TF meeting Sep 21, 2018 @SEMI Japan
- 6<sup>th</sup> TF meeting Sep 24, 2018 @SEMI Taiwan
- 7<sup>th</sup> TF meeting Oct 25, 2018 @Screen Kyoto
- 8<sup>th</sup> TF meeting Nov 5, 2018 @SEMI HQ(US)
- 9<sup>th</sup> TF meeting Nov 27, 2018 @SEMI Japan
- 10<sup>th</sup> TF meeting Dec 12, 2018 @SEMICON Japan
- 11<sup>th</sup> TF meeting Jan 24, 2019 @ASE Kaohsiung
- 13<sup>th</sup> TF meeting Feb 14, 2019 @SEMI Japan
- 14<sup>th</sup> TF meeting Mar 7, 2019 @Intel Chandler
- 15<sup>th</sup> TF meeting Mar 20, 2019 @SEMI Japan
- **16<sup>th</sup> TF meeting Apr 2, 2019 @SEMI HQ(US)**
- 17<sup>th</sup> TF meeting Apr 18, 2019 @SEMI Japan
- 18<sup>th</sup> TF meeting May 10, 2019 @SEMI Japan
- 19<sup>th</sup> TF meeting May 24, 2019 @CKplas Taiwan
- 20<sup>th</sup> TF meeting June 7, 2019 @SEMI Japan
- 21<sup>th</sup> TF meeting June 21, 2019 @Acteon Enoshima
- 22<sup>th</sup> TF meeting July 9, 2019 @SEMICON WEST

## 4.1 TF Voting-1: Change the Panel support area

### Panel FOUP Voting rule

- One company one vote
- Motion is a pass for 2/3



**Motion by Otogawa-san/Daihen:** There is a concern about the vibration and droop of panels during robot handling, we propose that the panel support areas and the end effector exclusion is configured the different value depending on the panel sizes as shown in the attached figures.

**Second by Shida-san/SEP**

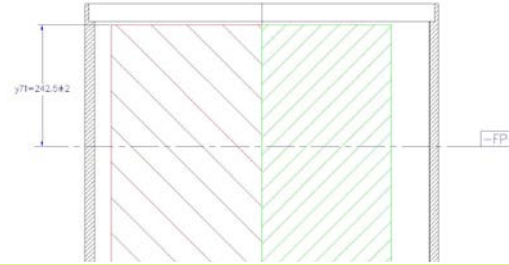
**Discussions, Mark/Hirata:** no oppose, concern about vibration and drooping may not so large.

Accept Votes	Oppose Votes	Abstain Votes	Comments
<ol style="list-style-type: none"> <li>1. Intel</li> <li>2. Muratec</li> <li>3. SEP</li> <li>4. TEL</li> <li>5. Nordson</li> <li>6. CKplas</li> <li>7. TDK</li> <li>8. SCREEN</li> <li>9. ASE(E-mail)</li> <li>10. Daihen(E-mail)</li> <li>11. Yodogawa Hu-tech(E-mail)</li> <li>12. PTI(E-mail)</li> <li>13. ASMPT(E-mail)</li> </ol>		<ol style="list-style-type: none"> <li>1. SUMCO</li> <li>2. UA associate</li> <li>3. Entegris</li> <li>4. Hirata</li> </ol>	

**Result :** TF agree this motion. The panel support areas for 500 and 600 are distinguished based on the proposal.

## 4.2 TF Voting 2: Separate the FOUP size

- Panel FOUP Voting rule
- One company one vote
  - Motion is a pass for 2/3



**Motion by Shida-san/SEP, In order to minimize the FOUP storage volume in the factory without changing the load port interface, we propose a 140 mm reduction in the depth of the 500 size FOUP as shown in the attached figure.**

**Second by Tominaga-san/Muratec**

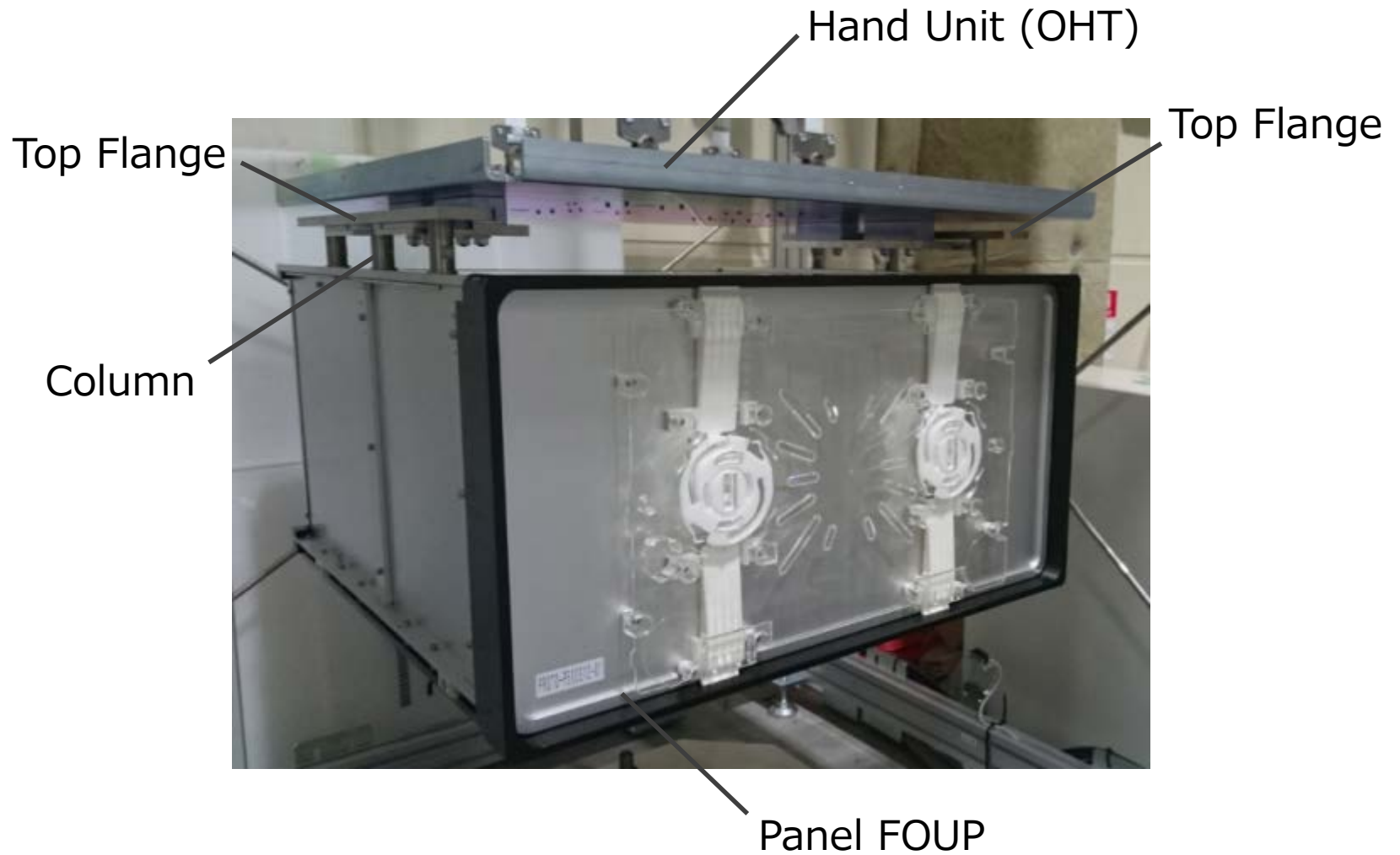
**Discussions; If this motion is pass, Our position also separate.**

**\*Need the revise the SNARF**

Accept Votes	Oppose Votes	Notes	Comments
<del>1. Intel</del> 2. SEP 3. TEL 4. Muratec 5. Hirata 6. CKplas 7. Nordson 8. Screen 9. TDK 10. ASE(Email) 11. Daihen(Email) 12. Yodogawa Hu-tech(E-mail) 13. ASMPT(E-mail)	1. PTI(E-mail) 2. Intel	CO Un 3. Enteg	<ul style="list-style-type: none"> <li>• PTI hopes that the newly designed FOUP will be compatible with the dedicated proposal.</li> <li>• Intel is accepting of the smaller size proposal.</li> </ul>

**Result: TF agree the Panel FOUP user oppose voting. Then TF reconsider about Panel FOUP size including the revise SNARF.**

# OHT hand discussion



# Ballot schedule

Target timing : **Cycle 6, 2019**

- Ballot approval by JA PIC Thursday, April 18, 2019
- Ballot Submission Date: **Friday, July 19, 2019**
- Voting Period Starts: Wednesday, July 31, 2019
- Voting Period Ends: Friday, August 30, 2019