



## Silicon Wafer Committee EU TC Chapter

### Meeting Summary and Minutes

SEMICON Europa

November 15, 2017

Munich, Germany

**Table 1 Meeting Attendees**

*Italics indicate virtual participants*

**Co-Chairs:** Friedrich Passek (Siltronic), Peter Wagner (Self), Werner Bergholz (Jacobs University)

**SEMI Staff:** John Doe

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
ASML	Planting	Bert	SUMCO	Nakai	Tetsuo
Jacobs University	Bergholz	Werner	Tokyo Electron	Mashiro	Supika
Self	Wagner	Peter			
Siltronic	Passek	Friedrich			
Siltronic	Riedel	Frank			

**Table 2 Leadership Changes**

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None		

**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>
6096A	Line Item Revision to SEMI M53-0216, Practice for Calibrating Scanning Surface Inspection Systems Using Certified Depositions of Monodisperse Reference Spheres on Unpatterned Semiconductor Wafer Surfaces	
LI 1	Addition of Related Information 2	<b>Passed</b> as balloted
6205	Line Item Revision to SEMI M43-1109, Guide for Reporting Wafer Nanotopography	
LI 1	Change the source of the footnote 1 reference.	<b>Passed</b> as balloted
6206	Line Item Revision to SEMI M78-1110, Guide for Determining Nanotopography of Unpatterned Silicon Wafers for the 130 nm to 22 nm Generations in High Volume Manufacturing	
LI 1	Change the source of the footnote 1 reference.	<b>Passed</b> as balloted

#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
6207	SNARF	AWG TF	Revise SNARF 6207(Line Item Revision to SEMI M1-1016, Specification for Polished Single Crystal Silicon Wafers) to clarify contents of each line item

#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
None			

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

#	TF	Title	Expiration Date
None			

**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
None		

**Table 12 Previous Meeting Action Items**

Item #	Assigned to	Details
None		

## 1 Welcome, Reminders, and Introductions

Friedrich Passek called the meeting to order at 14:05. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

## 2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

**Motion:** To approve the minutes as written.

**By / 2<sup>nd</sup>:** Werner Bergholz/Peter Wagner

**Discussion:** None

**Vote:** 5-0

**Attachment:** EU Silicon Wafer 20161026 v1.pdf

## 3 Liaison Reports

### 3.1 *Silicon Wafer Japan TC Chapter*

Tetsuya Nakai reported. Of note:

- Several ballots (mostly reapprovals) to be adjudicated at SEMICON Japan meeting in December.
- New SNARFs
  - Line item Revision for M49 “GUIDE FOR SPECIFYING GEOMETRY MEASUREMENT SYSTEMS FOR SILICON WAFERS FOR THE 130 nm TO 16 nm TECHNOLOGY GENERATIONS” (International Advanced Wafer Geometry Task Force)
  - Line Item Revision to modify the nonconforming title of SEMI M31-0708 MECHANICAL SPECIFICATION FOR FRONT-OPENING SHIPPING BOX USED TO TRANSPORT AND SHIP 300 mm WAFERS
- Ballots to receive inactive status
  - SEMI M24-0612, Specification for Polished Monocrystalline Silicon Premium Wafers

**Attachment:** JA Si Liaison Report SE2017 Meeting R0.1.ppt

### 3.2 *Silicon Wafer NA TC Chapter*

James Amano reported. Of note:

- Standards to receive inactive status
  - SEMI M18-0912 - Guide for Developing Specification Forms for Order Entry of Silicon Wafers
  - SEMI M32-0307 - (Reapproved 0512) - Guide to Statistical Specifications
- New SNARFs
  - SEMI M18-0912 - Guide for Developing Specification Forms for Order Entry of Silicon Wafers
  - SEMI M32-0307 - (Reapproved 0512) - Guide to Statistical Specifications
  - Reapproval of SEMI M8-0312 - Specification for Polished Monocrystalline Silicon Test Wafers
  - Reapproval of SEMI M38-0312 - Specification for Polished Reclaimed Silicon Wafers
  - Reapproval of 19 MF standards (Int’l Test Methods TF)

**Attachment:** NA Silicon Wafer TC Liaison Report August 2017.doc

### 3.3 SEMI Staff Report

James Amano (SEMI) gave the SEMI Staff Report. Of note:

Critical Dates for 2017 and 2018 Ballots

<b>2017</b>	<b>Ballot Submission Deadline</b>	<b>Voting Opens</b>	<b>Voting Closes</b>
<b>Cycle 8</b>	Oct 13	Oct 27	Nov 27
<b>Cycle 9</b>	Nov 16	Nov 29	Dec 29
<b>2018</b>			
<b>Cycle 1</b>	Jan 3	Jan 16	Feb 15
<b>Cycle 2</b>	Feb 7	Feb 20	Mar 22
<b>Cycle 3</b>	Mar 9	Mar 23	Apr 23
<b>Cycle 4</b>	Apr 20	Apr 30	May 30

**Attachment:** Staff Report for Europa Nov 2017 v1.ppt

## 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.

The below items were all approved as balloted

- Doc. 6096A, Line Item Revision to SEMI M53-0216, Practice for Calibrating Scanning Surface Inspection Systems Using Certified Depositions of Monodisperse Reference Spheres on Unpatterned Semiconductor Wafer Surfaces
  - Line Item 1 - Addition of Related Information 2
- Doc. 6205, Line Item Revision to SEMI M43-1109, Guide for Reporting Wafer Nanotopography
  - Line Item 1 - Change the source of the footnote 1 reference.
- Doc. 6206, Line Item Revision to SEMI M78-1110, Guide for Determining Nanotopography of Unpatterned Silicon Wafers for the 130 nm to 22 nm Generations in High Volume Manufacturing
  - Line Item 1 - Change the source of the footnote 1 reference.

## 5 Subcommittee and Task Force Reports

### 5.1 Int'l Advanced Surface Inspection Task Force

- Leaders: K. Haller, KLA-Tencor, Y. Tamaki, F. Riedel, Siltronic AG
- Meeting at SEMICON Europa 2017
  - Presentation of FemtoMetrix company
    - Company profile on ASI
  - ExNodes
    - Mike Varney presented initial products incorporating a novel surface inspection technology
  - TF looks forward for both companies participation
  - TF leaders to survey if standardization of defect classification could be of benefit for wafer industry.

### 5.2 Int'l Polished Wafer Task Force

- Leaders: John Valley, T. Takenaka, Consultant, K. Matsukawa, Renesas, K. Izunome, GlobalWafers F. Riedel, Siltronic AG
- Meeting at SEMICON Europa 2017
  - New SNARF 6097: Line item Revisions of M1 “SPECIFICATION FOR POLISHED SINGLE CRYSTAL SILICON WAFERS” to address issues with primary fiducials across text, table and figures.
    - Current SEMI M1-0416 “SPECIFICATION FOR POLISHED SINGLE CRYSTAL SILICON WAFERS” contains multiple issues that conflict with SEMI M20 coordinates definitions and are inconsistent within M1.

### 5.3 Int'l Test Methods Task Force

- Leaders: D. Gupta, STA, R. Takeda, P. Wagner
- No meeting at SEMICON Europa 2017

## 6 Old Business

None

## 7 New Business

- New SNARF: Line Items Revision to SEMI M1-1016, Specification for Polished Single Crystal Silicon Wafers (Add Shape metrics of Bow 3p in appendix 2 which was mistakenly removed at previous ballot, and add Illustrations of Shape Metrics for Silicon Wafers in Appendix 2.)
  - Motion: To approve the SNARF
  - By: Frank Riedel
  - Second: Peter Wagner
  - Discussion: None
  - Vote: 6-0

## 8 Next Meeting and Adjournment

The next meeting is scheduled for SEMI Europa 2018 in Munich, Germany. See <http://www.semi.org/standards-events> for the current list of events.

Respectfully submitted by:

James Amano

SEMI HQ