

## Record of Line-item Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: [North America](#)  
 Global Technical Committee: [Silicon Wafer](#)  
 TC Chapter Cochairs: [Noel Poduje/SMS](#), [Dinesh Gupta/STA](#)  
 Standards Staff: [Kevin Nguyen](#)

	Scheduled in Background Statement	Actual
Date	<a href="#">07/12/2016</a>	<a href="#">07/12/2016</a>
Location	<a href="#">San Francisco Marriott Marquis</a>	<a href="#">San Francisco Marriott Marquis</a>
Reason for Change of Date and/or Location (if changed)		

Note: See [Regulations ¶ 9.5](#) Exception for allowable reason to change.

### [Document Information](#)

#### I. Document Number, Title, Lists of Line Items

<b>Document Number</b> <a href="#">6019</a>	<b>Document Title</b> <a href="#">Line Item Revision of SEMI M1-0416, Specification for Polished Single Crystal Silicon Wafers</a>
<b>List of Line Items</b>	<b>Line Item 1</b> <b>Line Item Title</b> <a href="#">Correct and update Figure 3.</a>
	<b>Line Item 2</b> <b>Line Item Title</b> <a href="#">Remove redundant notes from the caption of Figure 7, and delete the term “outer” before “FQA boundary.”</a>
	<b>Line Item 3</b> <b>Line Item Title</b> <a href="#">Point out in ¶R3-4.4 that minority carrier lifetime measurements in electronic silicon manufacture must be controlled by recombination at impurities.</a>
	<b>Line Item 4</b> <b>Line Item Title</b> <a href="#">Add “and bow” to Note 13.</a>
	<b>Line Item 5</b> <b>Line Item Title</b> <a href="#">Add “and 450” to ¶R3-9.5 and correct the reference to ¶R3-9.4.</a>

## Line Item 1 Adjudication

### II. Tally

Standards staff to fill in.

**Voting Tally: As-cast tally after close of voting period**

**Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (Regulations ¶ 9.7.1.1)**

#### Voting Tally

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	54	÷ 90	= 60.0%	≥60%
Intercommittee Ballot	25			
Voting Interest Reject(s)	0	Total Voters with Rejects		0
Voting Interest Accept(s)	37			

**Note: See Regulations § 3.2.1 for definition of Voting Interest.**

### III. Rejects

There was no reject.

### IV. Other Technical Issues

None

### V. Comments

#### V- (i) Voters' Comments

Commenter 1 (John Valley (SunEdison Semiconductor)) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.
	<p>Accept with comment</p> <p>As new business I would suggest further modification of Fig. 3 as follows:</p> <p>1) Just below the call out words 'Orientation Fiducial Axis' add a line <math>\theta = 270^\circ</math></p> <p>2) Complete the new line with <math>\theta = 265^\circ \pm 0.1^\circ</math></p>
Action	The TC Chapter agreed to do one of the following actions.
	*No motion is required in this step.
	Already addressed by Commenter #, Comment #
	No further action was taken by the TC Chapter.
	Refer to the TF for more consideration.
x	New Business

		Editorial Change
	Options for editorial change (check one)	<b>Case 1: No vote in this section:</b> <i>To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.</i>
		<b>Case 2: Voted in this section:</b> <i>Original section number and at least one full sentence are required in "FROM" and "TO" fields.</i>
		FROM: Section/Paragraph xxx
		TO: Section/Paragraph xxx
Editorial Changes	1	Justification (if necessary)
		FROM: Section/Paragraph xxx
		TO: Section/Paragraph xxx
	2	Justification (if necessary)
		FROM: Section/Paragraph xxx
		TO: Section/Paragraph xxx
Motion	To approve above editorial change(s)	
Motion by/2 <sup>nd</sup> by	Name (Company)/Name (Company)	
Discussion	XXXX	
Vote	XX Y-XX N; Motion passed/failed.	

**V-(ii) Comments Created by Handling Negative**  
None

**VI. Editorial Changes Other than Those Voted on in § V**

None

**VII. Approval Conditions Check**

**VII. - (i). Approval Rate**

**APPROVAL CONDITION 1:** All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (Regulations ¶ 9.7.1.2)

**APPROVAL CONDITION 2:** At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (Regulations ¶ 9.7.1.3)

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	37	/	37	=	100.0%		≥90%

## VII. – (ii) Approval Level (check one)

Note: See *Regulations § 9.7.2* for further information.

### Globally Approved (No Ratification Ballot needed):

Line Item 1 meets the Letter Ballot approval conditions for the global technical committee.

### Need a Ratification Ballot:

Line Item 1 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

## Line Item 2 Adjudication

### II. Tally

Standards staff to fill in.

**Voting Tally: As-cast tally after close of voting period**

**Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (Regulations ¶ 9.7.1.1)**

#### Voting Tally

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	54	÷ 90	= 60.0%	≥60%
Intercommittee Ballot	25			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	36			

**Note: See Regulations § 3.2.1 for definition of Voting Interest.**

### III. Rejects

**Voting Interest Reject 1 (Voting Interest Name: PWC)**

**Voter Reject 1 (Voter: Peter Wagner (Self))**

**Negative 1**

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.		
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied. The quality of Fig. 7 is still not adequate for a SEMI standard. The circumference of the wafer should not be wavy.		
TF input (optional)				
Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection	
	<input type="checkbox"/>	Withdrawal document received by Standards staff on MM/DD/YYYY.	GO TO "Final" subsection → (A)	
Related	Motion and Reason (check one)	<input type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
		<input checked="" type="checkbox"/>	Negative is not related. (Needs ≥2/3 votes to pass.)	
		Reason	This is not part of the ballot.	
	Motion by/ 2 <sup>nd</sup> by	Peter Wagner (Self)/Kurt Haller (KLA-Tencor)		
Discussion	If anyone is interested in improving the figure, he/she is more than welcome to issue a line item ballot to improve the figure in a different ballot.			

	<b>Result of Vote (check one)</b>	7 Y-0 N; Motion passed				
		<input type="checkbox"/>	[Negative is not related.] < 2/3	GO TO "Persuasive" subsection		
		<input checked="" type="checkbox"/>	2/3 ≤ [Negative is not related.]	GO TO "Final" subsection → (B)		
Persuasive	<b>Motion and Reason (check one)</b>	Negative is related and persuasive. (Needs >1/3 votes to pass.)				
		Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)				
		Reason	XXXX			
	<b>Motion by/ 2<sup>nd</sup> by</b>	Name (Company)/Name (Company)				
	<b>Discussion</b>					
	<b>Result of Vote (check one)</b>	XX Y-XX N; Motion passed/failed.				
		<input type="checkbox"/>	[Negative is related and persuasive.] > 1/3	<b>Is a technical change recommended? (check one)</b>	<input type="checkbox"/> Y	GO TO "Address by Technical Change Option" subsection
		<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3		<input type="checkbox"/> N	GO TO "Final" subsection → (E)
		<input type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
		<input type="checkbox"/>	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection		
Address by Technical Change Option	<b>Technical Change Recommendations</b>					
	Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.					
	1	FROM: Section/Paragraph XXX				
		TO: Section/Paragraph xxx				
		Justification (if necessary)				
	2	FROM: Section/Paragraph XXX				
		TO: Section/Paragraph xxx				
		Justification (if necessary)				
	<b>Motion</b>	Negative is addressed by the technical change(s).				
	<b>Motion by/2<sup>nd</sup> by</b>	Name (Company)/Name (Company)				
<b>Discussion</b>						
<b>Result of Vote</b>	XX Y-XX N; Motion passed/failed.					

	(check one)	<input type="checkbox"/>	2/3 ≤ [Negative is addressed by the technical change(s).]	GO TO “Incorporation of the Technical Change” subsection	
		<input type="checkbox"/>	[Negative is not addressed by the technical change(s).] < 2/3	GO TO “Final” subsection → (E)	
	Incorporation of the Technical Change	Motion	To incorporate the technical change(s).		
		Motion by/2 <sup>nd</sup> by	Name (Company)/Name (Company)		
		Discussion			
Result of Vote (check one)	<input type="checkbox"/>	XX Y-XX N; Motion passed/failed.			
	<input type="checkbox"/>	90% ≤ [Agree to incorporate.]	GO TO “Final” subsection → (F)		
		<input type="checkbox"/>	[Disagree to incorporate.] > 10%	GO TO “Final” subsection → (E)	
Not Significant Finding Option	This option can be used only “if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action”. (Regulations ¶ 9.6.4.4.2)				
	Use of “Not significant finding option” (check one)	<input type="checkbox"/>	It is mutually agreed upon to term the Negative “not significant”.	GO TO “Final” subsection → (D)	
		<input type="checkbox"/>	It is mutually agreed upon to term the Negative “significant”.	GO TO “Final” subsection → (C)	
		<input type="checkbox"/>	Whether or not the Negative is “not significant” is decided by a vote.		
	Motion	The Negative is “not significant”.			
	Motion by/ 2 <sup>nd</sup> by	Name (Company)/Name (Company)			
	Vote	<input type="checkbox"/>	XX Y-XX N; Motion passed with simple majority	GO TO “Final” subsection → (D)	
<input type="checkbox"/>		XX Y-XX N; Motion failed with simple majority	GO TO “Final” subsection → (C)		
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)	
		<input checked="" type="checkbox"/>	(B)	Not related (counted under i in disposition)	
		<input type="checkbox"/>	(C)	Related and not persuasive (significant)	
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)	<input type="checkbox"/>	Comment generated. See Section V-(ii) Comment # X.		

### Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

1	Original number (#) of Negatives	(g)
#	Number of Negatives withdrawn	(h)
1	Number of Negatives found not related	(i)
#	Number of Negatives found not significant	(j)

#	Number of Negatives addressed by technical change ( <b>Negative becomes not significant</b> )		(k)
Final	x	$g - (h + i + j + k) = 0$	Reject is Not Valid and is not included in the denominator of § VI. <i>Approval Conditions Check</i>
		$g - (h + i + j + k) > 0$	Reject is included in the denominator of § VI. <i>Approval Conditions Check</i>
		Reject without a Negative	Not Valid

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations ¶ 9.4.3.3*)

Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations ¶ 9.6.4.4.2*)

## IV. Other Technical Issues

None

## V. Comments

### V- (i) Voters' Comments

Commenter 1 (**John Valley (SunEdison Semiconductor)**) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	<p>Accept with comment</p> <p>Call outs within Figure 7 should be corrected also. The primary fiducial has zero angular tolerance. The fiducial defines the angular reference position upon which tolerances apply. The angular tolerance sited in the call out is between the fiducial and the crystal orientation (see Fig. 3) and has no relevance in Fig. 7. The angle call out should read <math>\theta = 270^\circ</math> (by definition).</p> <p>Also, the wavy circular lines of Fig 7 should be replaced by higher resolution drawings of the same.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
		Already addressed by Commenter #, Comment #
		No further action was taken by the TC Chapter.
		Refer to the TF for more consideration.
	x	New Business
	Editorial Change	
Options for editorial change (check one)		<b>Case 1: No vote in this section:</b> <i>To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.</i>
		<b>Case 2: Voted in this section:</b> <i>Original section number and at least one full sentence are required in "FROM" and "TO" fields.</i>



**V-(ii) Comments Created by Handling Negative**  
**None**

**VI. Editorial Changes Other than Those Voted on in § V**  
**None**

**VII. Approval Conditions Check**

**VII. - (i). Approval Rate**

**APPROVAL CONDITION 1:** All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (*Regulations ¶ 9.7.1.2*)

**APPROVAL CONDITION 2:** At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (*Regulations ¶ 9.7.1.3*)

**Note:** If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	36	/	36	=	100.0%		≥90%	

**VII. – (ii) Approval Level (check one)**

**Note:** See *Regulations § 9.7.2* for further information.

**Globally Approved (No Ratification Ballot needed):**

Line Item 2 meets the Letter Ballot approval conditions for the global technical committee.

**Need a Ratification Ballot:**

Line Item 2 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

## Line Item 3 Adjudication

### II. Tally

Standards staff to fill in.

**Voting Tally: As-cast tally after close of voting period**

**Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (Regulations ¶ 9.7.1.1)**

#### Voting Tally

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	54	÷ 90	= 60.0%	≥60%
Intercommittee Ballot	25			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	38			

**Note: See Regulations § 3.2.1 for definition of Voting Interest.**

### III. Rejects

**Voting Interest Reject 1 (Voting Interest Name: PWC)**

**Voter Reject 1 (Voter: Peter Wagner (Self))**

#### Negative 1

	Referenced Section/ Paragraph	<b>*TF/TC Chapter to fill in, including text in the ballot if necessary.</b>		
		<b>The § R3-4.4 contains some erroneous or misleading remarks.</b>		
Negative	Negative Text	<b>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</b>		
		<p>It is true that recombination at a certain light intensity may be dominated by one recombination mechanism, but never exclusively. All recombination mechanisms happen in parallel at any exciting light intensity, but with a different degree. Therefore, the word “controlled” in the first sentence should be replaced by “dominated”.</p> <p>The sentence “While eddy-current sensing measurements are also applicable to measurements on wafers, SEMI PV13 applies over a wide range of incident light intensity, but the recombination may not occur at impurity centers when high intensity illumination is used.” is misleading. This sentence is not only true for eddy-current measurements but for all kind of lifetime measurements, such as microwave reflectivity decay of photocurrent decay. In addition, as outlined above, recombination at impurity centers occurs for all light intensities, but is dominated by radiative and Auger recombination at high illumination intensities. This has to be corrected.</p>		
	TF input (optional)			
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	<b>GO TO “Related” subsection</b>

		Withdrawal document received by Standards staff on MM/DD/YYYY.	GO TO "Final" subsection → (A)		
Related	Motion and Reason (check one)	<input type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection	
		<input type="checkbox"/>	Negative is not related. (Needs ≥2/3 votes to pass.)		
		Reason			
	Motion by/ 2 <sup>nd</sup> by				
	Discussion				
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)		
		<input type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
		Reason	XXXX		
	Motion by/ 2 <sup>nd</sup> by	Peter Wagner (Self)/Kurt Haller (KLA-Tencor)			
	Discussion	Disagreement on the fundamental of this section. This line item will be addressed in rebalot.			
Address by Technical Change Option	Technical Changes	7 Y-0 N; Motion passed			
		<input checked="" type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	
		<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3	<input checked="" type="checkbox"/>	Y
		<input type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	<input type="checkbox"/>	N
		<input type="checkbox"/>	90% ≤ [Negative is related and not persuasive.]		
<p><b>Technical Change Recommendations</b></p> <p>Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.</p>					
FROM: Section/Paragraph XXX					
TO: Section/Paragraph xxx					
Justification (if necessary)					
FROM: Section/Paragraph XXX					

		TO: Section/Paragraph xxx	
		Justification (if necessary)	
	Motion	Negative is addressed by the technical change(s).	
	Motion by/2 <sup>nd</sup> by	Name (Company)/Name (Company)	
	Discussion		
	Result of Vote (check one)	XX Y-XX N; Motion passed/failed.	
		<input type="checkbox"/> 2/3 ≤ [Negative is addressed by the technical change(s).]	GO TO "Incorporation of the Technical Change" subsection
		<input type="checkbox"/> [Negative is not addressed by the technical change(s).] < 2/3	GO TO "Final" subsection → (E)
Incorporation of the Technical Change	Motion	To incorporate the technical change(s).	
	Motion by/2 <sup>nd</sup> by	Name (Company)/Name (Company)	
	Discussion		
	Result of Vote (check one)	XX Y-XX N; Motion passed/failed.	
<input type="checkbox"/> 90% ≤ [Agree to incorporate.]		GO TO "Final" subsection → (F)	
<input type="checkbox"/> [Disagree to incorporate.] > 10%		GO TO "Final" subsection → (E)	
Not Significant Finding Option	This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.6.4.4.2)		
	Use of "Not significant finding option" (check one)	<input type="checkbox"/> It is mutually agreed upon to term the Negative "not significant".	GO TO "Final" subsection → (D)
		<input type="checkbox"/> It is mutually agreed upon to term the Negative "significant".	GO TO "Final" subsection → (C)
		<input type="checkbox"/> Whether or not the Negative is "not significant" is decided by a vote.	
	Motion	The Negative is "not significant".	
	Motion by/2 <sup>nd</sup> by	Name (Company)/Name (Company)	
	Vote	<input type="checkbox"/> XX Y-XX N; Motion passed with simple majority	GO TO "Final" subsection → (D)
<input type="checkbox"/> XX Y-XX N; Motion failed with simple majority		GO TO "Final" subsection → (C)	
Final	(check if applicable)	<input type="checkbox"/> (A)	Withdrawn (counted under h in disposition)
		<input type="checkbox"/> (B)	Not related (counted under i in disposition)
		<input type="checkbox"/> (C)	Related and not persuasive (significant)
		<input type="checkbox"/> (D)	Not significant (counted under j in disposition)
		<input checked="" type="checkbox"/> (E)	Related and persuasive and not addressed by technical change
	<input type="checkbox"/> (F)	Addressed by technical change (counted under k disposition)	
(check if applicable)	<input type="checkbox"/>	Comment generated. See Section V-(ii) Comment # X.	

## Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

1	Original number (#) of Negatives	(g)	
#	Number of Negatives withdrawn	(h)	
#	Number of Negatives found not related	(i)	
#	Number of Negatives found not significant	(j)	
#	Number of Negatives addressed by technical change <b>(Negative becomes not significant)</b>	(k)	
Final		$g - (h + i + j + k) = 0$	Reject is Not Valid and is not included in the denominator of § VI. <i>Approval Conditions Check</i>
	x	$g - (h + i + j + k) > 0$	Reject is included in the denominator of § VI. <i>Approval Conditions Check</i>
		Reject without a Negative	Not Valid

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations ¶ 9.4.3.3*)

Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations ¶ 9.6.4.4.2*)

## IV. Other Technical Issues

None

## V. Comments

### V- (i) Voters' Comments

None

### V-(ii) Comments Created by Handling Negative

None

## VI. Editorial Changes Other than Those Voted on in § V

None

## VII. Approval Conditions Check

### VII. - (i). Approval Rate

**APPROVAL CONDITION 1:** All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (*Regulations ¶ 9.7.1.2*)

**APPROVAL CONDITION 2:** At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (*Regulations ¶ 9.7.1.3*)

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	38	/	39	=	97.4%		≥90%	

## VII. – (ii) Approval Level (check one)

Note: See *Regulations § 9.7.2* for further information.

### Globally Approved (No Ratification Ballot needed):

Line Item 3 meets the Letter Ballot approval conditions for the global technical committee.

### Need a Ratification Ballot:

Line Item 3 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

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## Line Item 4 Adjudication

### II. Tally

Standards staff to fill in.

**Voting Tally: As-cast tally after close of voting period**

**Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (Regulations ¶ 9.7.1.1)**

#### Voting Tally

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	54	÷	90	=	60.0%	≥60%
Intercommittee Ballot	25					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	37					

**Note: See Regulations § 3.2.1 for definition of Voting Interest.**

### III. Rejects

There was no reject.

### IV. Other Technical Issues

None

### V. Comments

#### V- (i) Voters' Comments

Commenter 1 (Richard Allen (NIST))- Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	Marked as 'NOTE 1' Note 13:' rather than 'NOTE 13'	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #
	<input type="checkbox"/>	No further action was taken by the TC Chapter.
	<input type="checkbox"/>	Refer to the TF for more consideration.
	<input type="checkbox"/>	New Business
	<input checked="" type="checkbox"/>	Editorial Change
	<input type="checkbox"/>	Case 1: No vote in this section:

	Options for editorial change (check one)	<input type="checkbox"/>	To be included and voted on as a group in § VI. <i>Editorial Changes Other than Those Voted on in § V.</i>
		<input checked="" type="checkbox"/>	Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: NOTE 1: Note 13: Test methods SEMI MF1530 (for thickness, thickness variation, and flatness), SEMI MF1451 (for sori), and SEMI MF1390 (for warp and bow) may not be suitable for use on large diameter wafers with polished back surfaces.	
		TO: <del>NOTE 1:</del> Note 13: Test methods SEMI MF1530 (for thickness, thickness variation, and flatness), SEMI MF1451 (for sori), and SEMI MF1390 (for warp and bow) may not be suitable for use on large diameter wafers with polished back surfaces.	
		Justification (if necessary) Formatting error.	
Motion		To approve above editorial change(s)	
Motion by/2 <sup>nd</sup> by		Mike Goldstein/Dinesh Gupta (STA)	
Discussion		None	
Vote		8 Y-0 N; Motion passed	

**V-(ii) Comments Created by Handling Negative None**

**VI. Editorial Changes Other than Those Voted on in § V**

Listed above in section V- (i) Voters' Comments.

**VII. Approval Conditions Check**

**VII. - (i). Approval Rate**

APPROVAL CONDITION 1: All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (Regulations ¶ 9.7.1.2)

APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (Regulations ¶ 9.7.1.3)

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	37	/	37	=	100.0%		≥90%	



**VII. – (ii) Approval Level (check one)**

Note: See *Regulations* § 9.7.2 for further information.

**Globally Approved (No Ratification Ballot needed):**

Line Item 4 meets the Letter Ballot approval conditions for the global technical committee.

**Need a Ratification Ballot:**

Line Item 4 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

## Line Item 5 Adjudication

### II. Tally

Standards staff to fill in.

**Voting Tally: As-cast tally after close of voting period**

**Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (Regulations ¶ 9.7.1.1)**

#### Voting Tally

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	54	÷	90	=	60.0%	≥60%
Intercommittee Ballot	25					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	38					

**Note: See Regulations § 3.2.1 for definition of Voting Interest.**

### III. Rejects

There was no reject.

### IV. Other Technical Issues

None

### V. Comments

#### V- (i) Voters' Comments

None

#### V-(ii) Comments Created by Handling Negative

None

### VI. Editorial Changes Other than Those Voted on in § V

None

### VII. Approval Conditions Check

#### VII. - (i). Approval Rate

**APPROVAL CONDITION 1: All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (Regulations ¶ 9.7.1.2)**

**APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (Regulations ¶ 9.7.1.3)**

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	38	/	38	=	100.0%		≥90%

## VII. – (ii) Approval Level (check one)

Note: See *Regulations* § 9.7.2 for further information.

### Globally Approved (No Ratification Ballot needed):

Line Item 5 meets the Letter Ballot approval conditions for the global technical committee.

### Need a Ratification Ballot:

Line Item 5 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

## Checks for Entire Document Including All Approved Line Items

## VIII. Safety Check

Note: This Safety check applies to the entire Standard or Safety Guideline including all the approved Line Items. See § 15 of the *Regulations* for further information.

Motion	<input checked="" type="checkbox"/>	This is not a Safety Document, when all safety-related information is removed, the Document is still technically sound and complete. ( <i>Regulations</i> ¶ 8.7.1)
	<input type="checkbox"/>	This is a Safety Document, when all safety-related information is removed, the Document is not technically sound and complete. ( <i>Regulations</i> ¶ 8.7.2)
	<input type="checkbox"/>	Safety Checklist ( <i>Regulations</i> ¶ 15.3) is complete and has been included with the Document throughout the balloting process. ( <i>Regulations</i> ¶ 15.1.2)
	Motion by/2 <sup>nd</sup> by	Mike Goldstein/Kurt Haller (KLA-Tencor)
	Discussion	None
	Vote	7 Y-0 N; Motion passed

## IX. Intellectual Property (IP) Check

**Note:** This IP check applies to the entire Standard or Safety Guideline including all the approved Line Items. See § 16 of the *Regulations* for further information.

x	The TC Chapter meeting chair asked those participating, if they were aware of any potentially material patented technology or copyrighted items* in the Standard or Guideline. ( <i>Regulations</i> ¶ 8.8.1)		
	x	No potentially material patented technology or reproduction of copyrighted items is known. <b>GO TO SECTION X.</b>	
		Potentially material patented technology or reproduction of copyrighted items is known, but a Letter of Assurance (LOA) or copyright release letter for such items has been obtained or presented to the TC Chapter. <b>GO TO SECTION X.</b>	
		Potentially material patented technology or reproduction of copyrighted items is known and use of such materials is technically justified by the TC Chapter, but an LOA or copyright release letter for some of the item(s) has NOT been obtained or presented to the TC Chapter.	
	Motion		Ask ISC for special permission to publish.
			Quit activity.
			Wait for LOA for patented technology or release of copyrighted items.
	Motion by/2 <sup>nd</sup> by	Name (Company)/Name (Company)	
	Discussion	XXXX	
	Vote	XX Y-XX N	
	Final Action		Motion passed
		Motion failed	

\* Note: Such potentially material patented technology or copyrighted items might have become known since the Standard or Safety Guideline was last reviewed, or might become relevant due to this Letter Ballot.

## X. Action for This Document

Motion (Check all applicable items)	x	Line item(s) [1], [2] and [5] passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
	x	Line item(s) [4] passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
		Line item(s) [X], [X] and [X] passed TC Chapter review with technical changes and with or without editorial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification Ballot will be issued to verify the technical changes.
	x	Line item(s) [3] failed TC Chapter review and will be returned to the TF for rework.
		Line item(s) [X], [X] and [X] failed TC Chapter review and work will be discontinued.
Motion by/ 2 <sup>nd</sup> by	Dinesh Gupta (STA)/Peter Wagner (Self)	
Discussion	None	
Vote	7 Y-0 N	
Final Action	x	Motion passed
		Motion failed

Standards staff to record the result of the A&R procedural review here:

A&R		Line item(s) [X], [X] and [X] are Approved for publication
		Line item(s) [X], [X] and [X] are Approved pending acceptance of the Ratification Ballot
		Line item(s) [X], [X] and [X] are Not approved
	Reason:	