

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

Region/Locale: [Japan](#)

Global Technical Committee: [Automation Technology](#)

TC Chapter Cochairs: [Yasuhiro Kaneko / Yamaha Motor](#), [Terry Asakawa / Vistaideal Consulting](#), [Fumiyasu Ohbuchi / SIEMENS](#)

Standards Staff: [Hirofumi Kanno, SEMI Japan](#)

	Scheduled in Background Statement	Actual
Date	January/28/2021	January/28/2021
Location	SEMI Japan, Tokyo, Japan	SEMI Japan, Tokyo, Japan
Reason for Change of Date and/or Location (if changed)		

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

[Document Information](#)

I. Document Number, Title, Lists of Line Items

Document Number 6672	Document Title Line Item Revision to SEMI A2-1020: Specification for Surface Mount Assembler Smart Hookup (SMASH)	
List of Line Items	Line Item 1	Line Item Title Change responses to a propagating message to events.
	Line Item 2	Line Item Title Correct 'HC' in the reference statement for AC and CC in 'User Defined VC Message Description' table to 'VC'.
	Line Item 3	Line Item Title Change the recovery scenario when a pause is detected in ST0 from 'Resume' to 'Retry'.
	Line Item 4	Line Item Title Add description about prerequisites when changing MD reference mode setting.
	Line Item 5	Line Item Title Enhance and clarify the usages of the message thread and propagation function of SEMI A1 for flexible and extendable implementation.
	Line Item 6	Line Item Title Clarify the timing to originate PanelArrived and PanelDeparted.
	Line Item 7	Line Item Title Add messages that report load and unload of Panel and Magazine.
	Line Item 8	Line Item Title Add result data handling messages.

	Line Item 9	Line Item Title Add EquipID to user defined VC and HC messages.
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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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	50					

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

III. Rejects

None

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

Commenter 1 (Lee, BG/ASML) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.
	Generally very good standards based on my experience. For SMT, you may need additional automation for -Mixed mode: Sometime, many different vendors will provide some components within inline. Based on the vendors, the mode (Panel ID) will be different. You should consider the Mixed mode.
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 checked="" type="checkbox"/> Refer to the TF for more consideration.
<input type="checkbox"/> New Business	

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

This table is needed for each Comment accompanied a Vote

Commenter 1 (Lee, BG/ASML) - Comment 2

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	-Repair and reject: every inspection point, the panel can be repaired (manually or automatically) or rejected (Scrapped). So we need some special message sequence for these inspection machine.	
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.
	X	Refer to the TF for more consideration.
		New Business
	Editorial Change	
	Options for editorial	Case 1: No vote in this section: To be included and voted on as a group in § VI. <i>Editorial Changes Other than Those Voted on in § V.</i>
		Case 2: Voted in this section:

	change (check one)		Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: Section/Paragraph xxx	
		TO: Section/Paragraph xxx	
		Justification (If necessary)	
	2	FROM: Section/Paragraph xxx	
		TO: Section/Paragraph xxx	
		Justification (If necessary)	
Motion		To approve above editorial change(s)	
Motion by/2 nd by		Name (Company)/Name (Company)	
Discussion		XXXX	
Vote		XX Y-XX N; Motion passed/failed.	

This table is needed for each Comment accompanied a Vote

Commenter 1 (Lee, BG/ASML) - Comment 3

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.		
	-Assembled component: Panel Id is the most important to track. At the same time, assembled part Id or Batch ID will be also important to track. You may need some scenarios to support.		
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.	
	X	Refer to the TF for more consideration.	
		New Business	
	Editorial Change		
	Options for editorial change (check one)		Case 1: No vote in this section: To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
			Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial	1	FROM: Section/Paragraph xxx	

		TO: Section/Paragraph xxx
		Justification (If necessary)
2		FROM: Section/Paragraph xxx
		TO: Section/Paragraph xxx
		Justification (If necessary)
Motion		To approve above editorial change(s)
Motion by/2 nd by		Name (Company)/Name (Company)
Discussion		XXXX
Vote		XX Y-XX N; Motion passed/failed.

This table is needed for each Comment accompanied a Vote

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 ¶ 9.6.2.1.2)

APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (Regulations ¶ 9.6.2.1.3)

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

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	50	/	50	=	100.0%		≥90%	

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

Note: See Regulations § 9.6.2 for further information.

X

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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	49					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	49	/	49	=	100.0%		≥90%	

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

Note: See *Regulations § 9.6.2* 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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects			0
Voting Interest Accept(s)	50					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	50	/	50	=	100.0%		≥90%	

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

Note: See *Regulations § 9.6.2* 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.

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* ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	49					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	49	/	49	=	100.0%		≥90%	

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

Note: See *Regulations § 9.6.2* 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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects			0
Voting Interest Accept(s)	48					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	48	/	48	=	100.0%		≥90%

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

Note: See *Regulations* § 9.6.2 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.

Line Item 6 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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	48					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	48	/	48	=	100.0%		≥90%

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

Note: See *Regulations § 9.6.2* for further information.

Globally Approved (No Ratification Ballot needed):

Line Item 6 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:

Line Item 6 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Line Item 7 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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects			0
Voting Interest Accept(s)	48					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	48	/	48	=	100.0%		≥90%	

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

Note: See *Regulations § 9.6.2* for further information.

Globally Approved (No Ratification Ballot needed):

Line Item 7 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:

Line Item 7 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Line Item 8 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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	48					

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

III. Rejects None

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

		Accepts		(Accepts + Valid Rejects)			
Approval Rate	=	48	/	48	=	100.0%	≥90%

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

Note: See *Regulations § 9.6.2* for further information.

Globally Approved (No Ratification Ballot needed):

Line Item 8 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:

Line Item 8 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Line Item 9 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 ¶ 9.6.2.1.1)

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	136	=	61.8%	≥60%
Intercommittee Ballot	28					
Voting Interest Reject(s)	0		Total Voters with Rejects			0
Voting Interest Accept(s)	47					

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

III. Rejects

None

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

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	47	/	47	=	100.0%		≥90%

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

Note: See *Regulations § 9.6.2* for further information.

Globally Approved (No Ratification Ballot needed):

Line Item 9 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:

Line Item 9 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	X	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)
		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)
		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/2nd by		Nagatomo (Cimetrix)/Nakahara (Siemens)
Discussion		None
Vote		3 Y-0 N: Motion passed

IX. Intellectual Property (IP) Check

Note: This Letter Ballot may cover all or part of a Standard or Safety Guideline. Regardless of the coverage, this IP check applies to the entire Standard or Safety Guideline including all the approved Line Items*. See Regulations § 16 for further information.

X	The TC Chapter meeting chair asked those participating, if they were aware of any patented technology that might be relevant (see <i>Regulations</i> ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (see <i>Regulations</i> ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also see, <i>Regulations</i> § 8.8)			
X	The question is NOT answered in affirmative (No potentially material patented technology or use/reproduction of copyrighted items/trademarks is known.)	GO TO SECTION X.		
	The question is answered in affirmative	Is any of the known IPs a patented technology?	Yes, at least one of them is a patented technology	GO TO IX (a) “Patented Technology” subsection
			No	GO TO IX (b) “Copyright items” subsection

X. Action for This Document

Motion (Check all applicable items)	X	Line item(s) 1, 2, 3, 4, 5, 6, 7, 8 and 9 passed TC Chapter review as balloted 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 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.
		Line item(s) [X], [X] and [X] 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/ 2nd by		Nagatomo (Cimetrix) / Shimono (Siemens)
Discussion		None
Vote		3 Y-0 N

Final Action	<input checked="" type="checkbox"/>	Motion passed
	<input type="checkbox"/>	Motion failed

Note: If the use of PMPT or copyrighted item is justified by the TC Chapter, LOA or release form must be received before publication can proceed.