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

Region/Locale: North America
Global Technical Committee: Information & Control
TC Chapter Cochairs: Brian Rubow/Cimetrix, Albert Fuchigami/PEER Group, Jack Ghiselli/Ghiselli Consulting, James Moyne/AMAT/University of Michigan
Standards Staff: Michelle Sun

	Scheduled in Background Statement	Actual
Date	3/27/2024	3/27/2024
Location	SEMI HQ/Milpitas	SEMI HQ/Milpitas
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	Document Title
6836A	Line Item Revision to SEMI E87-0921, Specification for Carrier Management (CMS) and SEMI E87.1-0921, Specification for SECS-II Protocol for Carrier Management (CMS) and SEMI E90-0921, Specification for Substrate Tracking and E90.1-0312 (Reapproved 0921), Specification for SECS-II Protocol Substrate Tracking
List of Line — **Line Item 1**	**Line Item Title** Add name-value pair attributes to SEMI E90 substrate and SEMI E87 carrier objects for additional information.

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 Tally (with example values):

Voting Interest:	Returned Votes		Distribution		Return Rate						
Letter Ballot	80	÷	133	=	60.2%	≥60%		>=90%			
Intercommittee Ballot	43										
Voting Interest Reject(s)	0		Total Voters with Rejects		0						
Voting Interest Accept(s)	58										

III. Rejects

IV. Other Technical Issues

V. Comments
V- (i) Voters' Comments
Commenter 1 (Brian Rubow/Cimetrix) - Comment 1

Comment	***TF/TC Chapter to fill in section/paragraph #, if necessary.**
	Context: Proposed Change to Table 6 in E87, newly proposed attribute AdditionalSubstrateInfoMap
	Comment: The new attribute is described as a "list of n structures". The example structure is a "List of Structure". I fear that an implementer might mistake the example as the structure for the AdditionalSubstrateInfoMap, which is a list of the example structure. I am bit surprised we are not showing an example of AdditionalSubstrateInfoMap's structure, rather than showing AdditionalInfo again.
Action	**The TC Chapter agreed to do one of the following actions.**
	*No motion is required in this step.
		Already addressed by Commenter #, Comment #
	x	No further action was taken by the TC Chapter.
		Refer to the TF for more consideration.
		New Business

		Editorial Change		
Editorial Changes	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.	
	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/2nd 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 (Brian Rubow/Cimetrix) - Comment 2

Comment	***TF/TC Chapter to fill in section/paragraph #, if necessary.**	
	Context: Proposed Change to Table 6 in E87, newly proposed attribute AdditionalSubstrateInfoMap	
	The description is technically accurate, but might be confusing due to the fact that we are talking about two structures, the "list of n structures" where each structure is also a "List of Structure", both called 'structure'. I had to read/study this for a while to be sure I understood. There are a few ways to improve this, such as using a subscript on the word structure to distinguish each reference.	
	It also might be worth noting that in addition to "When a slot has no substrate, the structure is an empty list". This is also true if no AdditionalInfo attributes are assigned.	
Action	**The TC Chapter agreed to do one of the following actions.**	
	*No motion is required in this step.	
		Already addressed by Commenter #, Comment #
	x	No further action was taken by the TC Chapter.

		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 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/2nd 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* ¶ 9.6.2.1.2)

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)

		Accepts		(Accepts + Valid Rejects)			
Approval Rate	=	**58**	/	**58**	=	**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.

Checks for Entire Document Including All Approved Line Items

VIII. Safety Check

Motion			
	x	**This is not a Safety Document**, when all safety-related information is removed, the Document is still technically sound and complete. (_Regulations_ ¶ 8.7.1)	
		This is a Safety Document, when all safety-related information is removed, the Document is not technically sound and complete. (_Regulations_ ¶ 8.7.2)	
			Safety Checklist (_Regulations_ ¶ 15.3) is complete and has been included with the Document throughout the balloting process. (_Regulations_ ¶ 15.1.2)

Motion by/2nd by	By: Brian Rubow / Cimetrix Incorporated Second: James Moyne / Applied Materials, Inc.
Discussion	None
Vote	14 **Y**-0 **N**; Motion passed

IX. Intellectual Property (IP) Check

x	The TC Chapter meeting chair asked those participating, if they were aware of any patented technology that might be relevant (see _Regulations_ ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (see _Regulations_ ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also see, _Regulations_ § 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**

IX(a) Patented Technologies subsection
IX(a1) Total numbers of Patented Technologies to be dealt with

# **Fill number**	**(l)** Known Patented Technology that might be relevant to	# **Fill number**	**(m)** Number of patented technologies first became known to the TC Chapter on or after the day of the issuance of this Letter Ballot	**Postpone assessment of such patented technologies to be performed at the next scheduled TC Chapter meeting.**

the Standard/Safety Guideline	**#** **Fill number**	**(n)** Number of patented technologies first became known to the TC Chapter before the day of the issuance of this Letter Ballot	**GO TO IX (a2)**

IX(a2) Assessment of disclosed patented technologies

Disclosed patented technology #1 (*Brief description, e.g., patent title and number*):			**Date of Assessment (If different from the date of Letter Ballot adjudication)** MM/DD/YYYY		
Is disclosed patented technology #1 found to be "might be material" to the Standard/Safety Guideline?		YES (It is a PMPT)	Is the use of this PMPT technically justified?		YES	**PROCEED to assess NEXT one, or** **if this is the last one, GO TO IX(a3)**
					NO	**The Document is failed and returned to the TF**
		NO	No further action is needed for patented technology #1			

This table is needed for each disclosed patented technology.

IX(a3) LOA status check of PMPT of which inclusion assessed to be justified

LOA Status of PMPT #1					
Has an LOA for this patented technology been received from every owner ?		YES	**PROCEED to check NEXT one,** **or if this is the last one, GO TO IX(b)**		
		NO	MOTION		Ask ISC for special permission to publish.
				Quit activity.	**The Document is failed and returned to the TF**
				Wait for LOA	**PROCEED to check NEXT one,** **or if this is the last one, GO TO IX(b1)**
			Motion by/ 2nd by	Name (Company)/Name (Company)	
			Discussion	XXXX	
			Vote	XX **Y**-XX **N**; Motion passed (or failed)	

This table is needed for each PMPT of which inclusion assessed to be justified.

IX(b1) Total numbers of copyrighted items to be dealt with

# **Fill number**	**(o)** Known copyrighted items that are used or reproduced to the Standard/Safety Guideline	**o > 0** There is at least one known copy righted items that might be relevant to the Standard/Safety Guideline	**GO TO IX (b2)**
		o = 0 There is no disclosed copyrighted item	**GO TO IX (c)**

IX(b2) Assessment of disclosed copyrighted items

Disclosed copyrighted item #1 (*Brief description of its use in the Document*):					
Is disclosed copyrighted item #1 used or reproduced in the Standard/Safety Guideline?		YES	Is the use/reproduction of this copyrighted item technically justified?		YES	**PROCEED to assess NEXT one, or** **if this is the last one, GO TO IX(b3)**
					NO	**The Document is failed and returned to the TF**
		NO	No further action is needed for copyrighted item #1			

This table is needed for each disclosed copyrighted item.

IX(b3) Copyright release status check of copyrighted item of which inclusion assessed to be justified

Copyright release Status of copyrighted item #1					
Has the copyright release been received from its owner ?.		YES	**PROCEED to assess NEXT one, or** **if this is the last one, GO TO IX(c)**		
		NO	MOTION		Ask ISC for special permission to publish.	
				Quit activity.	**The Document is failed and returned to the TF**
				Wait for copyright release letter	**PROCEED to check NEXT one, or if this is the last one, GO TO IX(c)**
		Motion by/ 2nd by		Name (Company)/Name (Company)	
		Discussion		XXXX	
		Vote		XX **Y**-XX **N**; Motion passed (or failed)	

This table is needed for each copyrighted item of which use/reproduction assessed to be justified.

IX(c) Assessment of disclosed (identified) trademark

Is there any trademark in the Standard/Safety Guideline?		YES	Is every instance of trademark use technically justified?		YES	**GO TO** IX(d)
					NO	**The Document is failed and returned to the TF**
		NO	**GO TO IX(d)**			

IX(d) IP check completion condition check

The co-chair checks if any Patented Technologies first become known to the TC Chapter on or after the day of the issuance of this Letter Ballot? i.e., m>0 in IX(a1)		YES	**Sections IX(a2) and IX(a3) shall be completed and recorded for such patented technologies at next scheduled meeting of the TC Chapter. Until then, the TC Chapter shall NOT go to** X (making motion to pass/fail this Document) **(see *Regulations* ¶ 16.4.1.2)** **Until then this Letter Ballot Review is on hold.**
		NO	**GO TO X**

X. Action for This Document

Motion (Check all applicable items)	x	Line item(s) [1] 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		By: Brian Rubow / Cimetrix Incorporated Second: Chris Maloney / Intel Corporation
Discussion		None
Vote		13 **Y**-0 **N**
Final Action	x	Motion passed
		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.