

Record of Letter Ballot Review by TC Chapter for Procedural Review

Locale: [North America](#)

Global Technical Committee Region: [Information & Control](#)

TC Chapter Cochairs: [Brian Rubow \(Cimetrix\)](#), [Jack Ghiselli \(Ghiselli Consulting\)](#), [James Moyne \(AMAT / University of Michigan\)](#)

Standards Staff: [Michelle Sun](#)

	Scheduled in Background Statement	Actual
Date	4/5/2023	4/5/2023
Location	Milpitas, CA	Milpitas, CA
Reason for Change of Date and/or Location (if changed)		

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

I. Document Number and Title

Document Number 7001	Document Title Revision to SEMI E125-1022 Specification for Equipment Self Description (EqSD) and SEMI E125.2-1022 Specification for Protocol Buffers for Equipment Self Description (EqSD)
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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	90	÷ 147	= 61.2%	≥60%
Intercommittee Ballot	44			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	57			

Note: See [Regulations § 3.2.1](#) for definition of Voting Interest.

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Doople)

Voter Reject 1 (Voter: Hyungsu Kim / Doople)

Negative 1

	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.	
		11.4.6.1.2 unitSymbolParameter	
Negative	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.	
		<p>GetParameters is the service not quarrying Parameter Value but the service for getting Parameter Classes to consist of the Nodedescription.So, It is not possible to update the current configuration for the selected unit using UnitSymbolParameter. (more explanation)</p> <p>The current Metadata structure cannot dynamically reflect the selected UnitConfig when the UnitConfig referred to each parameter is changed in the actual device. That is, if you change the UnitSymbol of Source Data from 'm' to 'ft' in the equipment, In order for the unit referenced in the metadata parameter to be dynamically changed and applied, there must be a special interface between the equipment and the EDA Server. It should be possible without changing the revision of metadata. The 8 services (E125.GetEquipmentStructure~E125.GetEquipmentNodeDescription) that compose metadata cannot be Current Config by using GetParameterValues of E134. Because, Composes the metadata is the EDA Server area, but uses E134 is the EDA Client area.</p>	
TF input (optional)			
	Withdrawal (check one)	<input 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 checked="" 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.)
		<input type="checkbox"/>	Reason XXXX
	Motion by/ 2 nd by	Name (Company)/Name (Company)	
	Discussion		
	Result of Vote (check one)	XX Y-XX N; Motion passed/failed.	
<input type="checkbox"/>		[Negative is not related.] < 2/3	GO TO "Persuasive" subsection
<input type="checkbox"/>		2/3 ≤ [Negative is not related.]	GO TO "Final" subsection → (B)
Persuasi	Motion and Reason (check one)	<input type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)
		<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)

	Reason	<p>Metadata is unchanged when unitSymbolParameter's parameter value changes ('m' to 'ft').</p> <p>Parameter values are not part of the equipment metadata, even if the value refers to a unit.</p> <p>New Section 11.4.6.1.2 provides an example of how the unitSymbolParameter attribute of the UnitConfig object is used</p> <p>There is no SEMI E125 operation that the EDA Client can use to update the Equipment Server's metadata.</p>
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Motion by/ 2nd by	By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimetrix Incorporated
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Discussion	Voter agreed to address issue in a new SNARF.
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Result of Vote (check one)	13 Y-0 N; Motion passed.								
	<input type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one) <table border="1"> <tr> <td><input type="checkbox"/></td> <td>Y</td> <td>GO TO "Address by Technical Change Option" subsection</td> </tr> <tr> <td><input type="checkbox"/></td> <td>N</td> <td>GO TO "Final" subsection → (E)</td> </tr> </table>	<input type="checkbox"/>	Y	GO TO "Address by Technical Change Option" subsection	<input type="checkbox"/>	N	GO TO "Final" subsection → (E)
	<input type="checkbox"/>	Y	GO TO "Address by Technical Change Option" subsection						
	<input type="checkbox"/>	N	GO TO "Final" subsection → (E)						
<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3	GO TO "Final" subsection → (C)							
<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Not Significant Finding Option" subsection							

Technical Change Recommendations
 Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.

Address by Technical Change Option	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	Negative is addressed by the technical change(s).
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Motion by/2nd by	Name (Company)/Name (Company)
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Discussion	
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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)	

☐ - Motion	To incorporate the technical change(s).
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	Motion by/2 nd 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.]
		<input type="checkbox"/>	[Disagree to incorporate.] > 10%
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 ¶ 9.6.1.4.5.2)		
	Use of "Not significant finding option" (check one)	<input checked="" type="checkbox"/>	It is mutually agreed upon to term the Negative "not significant".
		<input type="checkbox"/>	It is mutually agreed upon to term the Negative "significant".
		<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 nd 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 checked="" type="checkbox"/>	(D) Not significant (counted under j in disposition)
		<input 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.	

This table is needed for each Negative.

Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

1	Original number (#) of Negatives	(g)	
0	Number of Negatives withdrawn	(h)	
0	Number of Negatives found not related	(i)	
1	Number of Negatives found not significant	(j)	
0	Number of Negatives addressed by technical change (Negative becomes not significant)	(k)	
Final	<input checked="" type="checkbox"/>	$g - (h + i + j + k) = 0$	Reject is Not Valid and is not included in the denominator of § VI. Approval Conditions Check
	<input type="checkbox"/>	$g - (h + i + j + k) > 0$	Reject is included in the denominator of § VI. Approval Conditions Check

	Reject without a Negative	Not Valid
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IV. Other Technical Issues

None

V. Comments

None

V- (i) Voters' Comments

Commenter 1 (Hyungsu Kim / Doople) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	<p>Metadata Fingerprint 11.9.2.3 The fingerprint value does not have to be human-readable. (E.g., a hash value such as 'KY86VvrGfjcw5j20m2QCAQ==' is a valid fingerprint value.) --> It would be hard to show the all Use Cases that are possible to use the String Parameter example for Fingerprint. So, How about defining it as 'Equipment Supplier should provide Fingerprint value for tracking all of the Metadata changes and the same fingerprint should represent the same Metadata revision.'</p>	
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 checked="" 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 type="checkbox"/>	Editorial Change	

This table is needed for each Comment accompanied a Vote

Commenter 2 (Tomoko Suzuki / Daifuku) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	There are some numbers for sections (or notes) not updated.	
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 checked="" 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 type="checkbox"/>	Editorial Change	

This table is needed for each Comment accompanied a Vote

Commenter 3 (Mitch Sakamoto / Zama Consulting) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	<p>11.3.1.2 Equipment Node Description An equipment node may be any concrete class derived from the Nameable class, as defined in the SEMI E120 specification. (e.g. EquipmentElement, MaterialLocation or LogicalElement)</p> <p>Comment: The nodes should be described in the structure of substantial components such as Equipment/Module/Subsystem/IO Device; for instance, Track01/Coater01/Dispence01/Pump01. The Equipment Element is still an abstract class of those components.</p>	
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
<input type="checkbox"/>	Editorial Change	

This table is needed for each Comment accompanied a Vote

Commenter 3 (Mitch Sakamoto / Zama Consulting) - Comment 2

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	<p>Referenced Section/Paragraph: 11.9.1.2</p> <p>Comment Text:</p> <p>Reference: 11.9.1.2 Equipment from the same equipment supplier that have the same equipment metadata shall have the same fingerprint value. There is no expectation that different equipment suppliers have the same fingerprint value even if they have the same equipment metadata.</p> <p>Comment: The second sentence can be taken as;</p> <p>(1) Equipment A and B have the same metadata</p> <p>(2) The supplier of A and the supplier of B may not have the same fingerprint.</p> <p>It is not reasonable that the 'supplier' has the fingerprint. The fingerprint is given to the metadata, not the supplier.</p>	
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
<input type="checkbox"/>	Editorial Change	

This table is needed for each Comment accompanied a Vote

Commenter 3 (Mitch Sakamoto / Zama Consulting) - Comment 3

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	<p>Referenced Section/Paragraph: 11.9.2</p> <p>Comment Text:</p> <p>Reference: 11.9.2 A nontransient string parameter called MetadataFingerprint shall provide the fingerprint value for the current</p>	

	metadata content. Comment: The following should be clarified; (1) The parameter intended to be collected with DCP or Ad-hoc capabilities of E134. (2) It is expected that the parameter is described in the metadata on the Equipment node.
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 checked="" 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 type="checkbox"/> Editorial Change	

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	=	57	/	57	=	100.0%		≥90%	

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

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

<input checked="" type="checkbox"/>	Globally Approved (No Ratification Ballot needed): The Letter Ballot meets the Letter Ballot approval conditions for the global technical committee.
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Need a Ratification Ballot:

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

VIII. Safety Check

Note: See *Regulations § 15* 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 ¶ 8.7.1</i>)
		This is a Safety Document , when all safety-related information is removed, the Document is not technically sound and complete. (<i>Regulations ¶ 8.7.2</i>)
		Safety Checklist (<i>Regulations ¶ 15.3</i>) is complete and has been included with the Document throughout the balloting process. (<i>Regulations ¶ 15.1.2</i>)
Motion by/2nd by		By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimatrix Incorporated
Discussion		None
Vote		14 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*. 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)			
	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.		
x	The question is answered in affirmative	Is any of the known IPs a patented technology?	x	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

1 Fill number	(l) Known Patented Technology that might be relevant to the Standard/Safety Guideline	0 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.
1 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

<p>Disclosed patented technology #1</p> <p>Asyst Patent Application</p> <p>Multi-protocol multi-client equipment server</p> <p>Automation Job Management</p> <p>Automated tool management in a multi-protocol environment</p> <p>Apparatus and method for web-based tool management</p> <p>NON-ASSERTION AGREEMENT (LOA) between SEMI and Asyst Technologies has been signed with for US Patents #11/340101, #11/107508, #09/899833, and 09/496009, in 2008.</p>	<p>Date of Assessment (If different from the date of Letter Ballot adjudication)</p> <p>12/1/2007</p>
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Is disclosed patented technology #1 found to be "might be material" to the Standard/Safety Guideline?	<input checked="" type="checkbox"/>	YES (It is a PMPT)	Is the use of this PMPT technically justified?	<input checked="" type="checkbox"/>	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 ?	<input checked="" type="checkbox"/>	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/ 2 nd 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

0 Fill number	(o) Known copyrighted items that are used or reproduced to the Standard/Safety Guideline	<input type="checkbox"/>	o > 0 There is at least one known copy righted items that might be relevant to the Standard/Safety Guideline	GO TO IX (b2)
		<input checked="" type="checkbox"/>	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
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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)	
	MOTION	NO	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?	x	YES	Is every instance of trademark use technically justified?	x	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.
	x	NO	GO TO X

X. Action for This Document

Motion	x	This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
		This Document passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
		This Document 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.
		This Document failed TC Chapter review and will be returned to the TF for rework.

	This Document failed TC Chapter review and work will be discontinued.	
Motion by/ 2nd by	By: Albert Fuchigami / PEER Group Inc. Second: Jack Ghiselli / Ghiselli Consulting	
Discussion	None	
Vote	14 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.