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

Region/Locale: North America

**Global Technical Committee: Metrics** 

TC Chapter Cochairs: David Bouldin/Fab Consulting, Vladimir Kraz/BestESD

Standards Staff: Michelle Sun

	Scheduled in Background Statement	Actual
Date	TBD	04/14/2021
Location	TBD	OVTCCM
Reason for	COVID-19 Pandemic	
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 E78-0912		Document Title GUIDE TO ASSESS AND CONTROL ELECTROSTATIC DISCHARGE (ESD) AND ELECTROSTATIC ATTRACTION (ESA) FOR EQUIPMENT
List c	Line Item 1	Line Item Title Update tables and references with changes needed to replace ITRS references with IRDS 2017 throughout the document
of Line	Line Item 2	Line Item Title Update referenced documents and remove obsolete or outdated documents.
Items	Line Item 3	Line Item Title Implement editorial and minor technical changes as needed (e.g., to comply with Style Manual, Regulations, and/or Procedure Manual).

### **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):**

39 0	÷	65	=	60.0%	≥60%
0					
1		Total	Vote	rs with Rejects	1
29					
	29	29			1 Total Voters with Rejects 29

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

## III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Kokusai Electric)
Voter Reject 1 (Voter: Mitsuhiro Matsuda / Kokusai Electric)

Negative 1

1109	ative i				
	Referenced Section/ Paragraph		TC Chapter to fill in, including text in the ballot if neckground Statement	essary.	
Negative	Negative Text	meetings due to force majeure (e.g., natural disaster, war, loss of necessary infrastructure at the meeting location described in the Background Statemed Letter Ballot), Letter Ballot Review in question shall be completed during the rescheduled TC Chapter meeting. If rescheduling is not practical, review may changed to a meeting of a TC Chapter other than the Originating TC Chapter TC Chapter would become the Responsible TC Chapter) if agreed upon by the cochairs of the Originating TC Chapter, and approved by the GCS (see § 5.7 EXCEPTION 2: If the TC Chapter assessment of any patented technology the relevant to the Document is postponed in accordance with § 16.3.3.2, the Letter Review shall be completed during the next scheduled meeting of the Responsible TC Chapter, at which the last one of the postponed assessments of patented technologies in accordance with § 16.3.3.2 is conducted.			
TF	input (optional)				
	Withdrawal		No Negative withdrawal made by Voter.	subsection	
	(check one)	X	Withdrawal document received by Standards staff on 03/23/2021.	GO TO "Final" subsection → (A)	
ᅃᄱ	Motion and Reason		'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection	

	(ch	eck or	ne)		Negative is not related. (Needs ≥2/3 votes to pass.)									
					Reason	XXXX	<							
		otion b 2 <sup>nd</sup> by		Nan	Name (Company)/Name (Company)									
	Dis	scussi	on											
				XX \	Y-XX N; Motion passe	ed/failed								
	Result of Vote (check one)			[Negative is not related			3		GO TO "Persuasive" subsection					
					2/3 ≤ [Negative is not related.]				GO TO "Final" subsection → (B)					
	Ma	otion a	nd		Negative is related a	nd persı	uasive. (Needs >1	/3 votes to	o pass.)					
	F	Reasor leck or	า		Negative is related a	nd not p	ersuasive. (Needs	s ≥2/3 vote	es to pass.)					
					Reason XXXX									
P		otion b 2 <sup>nd</sup> by		Nam	ne (Company)/Name (	(Compa	ny)							
Persuasive	Dis	scussi	on											
ıasi				XX <b>'</b>	Y-XX N; Motion passe	ed/failed								
Ve	Resi	ult of \	/ote		[Negative is related a persuasive.] > 1/3	ınd	Is a technical change recommended?	•	GO TO "Address by Technical Change Option" subsection					
		eck or			[Negative is related a persuasive.] < 2/3		(check one)	N	GO TO "Final" subsection → (E)					
					2/3 ≤ [Negative is related and not persuasive.]	< 90%	GO TO "Final" s	ubsection	n <b>→ (C)</b>					
					90% ≤ [Negative is re and not persuasive.]	GO TO "Not Significant Finding Option" subsection								
	Techi	nical C	Chang	je Re	ecommendations									
Addre	Origii fields		ction/	para	graph number and a	at least	one full sentence	are requ	ired in "FROM" and "TO"					
ss b		FR	OM:	Sect	ion/Paragraph XXX									
/ Tec		1 TC	D: Sec	ction	/Paragraph xxx									
hnic	Tech	Ju	stific	atio	n (If necessary)									
al C	nica	FR	OM: S	Sect	ion/Paragraph XXX									
hange	Technical Changes													
Address by Technical Change Option	ıges	2 TO	D: Sed	ction	/Paragraph xxx									
Ď	Justification (If necessary)													

	Motic	on			Negative is addressed by the technical change(s).						
	Motion by/2 <sup>nd</sup> by					Name (Company)/Name (Company)					
	Discu	ussion									
					XX <b>Y</b> -XX <b>N</b> ; Motion passed/failed.						
	Result of Vote (check one)				2/3 ≤ [Negative is addressed by the technical change(s).]			GO TO "Incorporation of the Technical Change" subsection			
						[Negative change(s	e is not addressed by the technical s).] < 2/3	GO TO "Final" subsection → (E)			
	_	Motion			To ii	ncorpora	te the technical change(s).				
	nco Tec	Motion by/	2 <sup>nd</sup> k	ру	Nam	ne (Comp	any)/Name (Company)				
	rpora hnic	Discussion	n								
	atior al C				XX Y	Y-XX N; N	Motion passed/failed.				
	Incorporation of the Technical Change	Result o				90% ≤ [A	Agree to incorporate.]	GO TO "Final" subsection → (F)			
	he e	(check	one			[Disagre	e to incorporate.]>10%	GO TO "Final" subsection → (E)			
7					only "if the TC Chapter finds a Negative not persuasive by a vote equal to or persons voting on the action". ( <i>Regulations</i> ¶ 9.6.1.4.5.2)						
lot Siç					mutu ificar		ed upon to term the Negative "not	GO TO "Final" subsection → (D)			
Not Significant Finding Option	siç findi	significant inding option" (check one)			mutu nifica		ed upon to term the Negative	GO TO "Final" subsection → (C)			
ıt Fi	(33)	(Check one)			nether or not the Negative is "not significant" is decided by a vote.						
ndii	ı	Motion	The	Neg	ative	is "not s	ignificant".				
าց Oբ		otion by/ 2 <sup>nd</sup> by	Nan	ne (C	Company)/Name (Company)						
tion		Vote		XX.	Y-XX	N; Motio	on passed with simple majority	GO TO "Final" subsection → (D)			
		Vote			Y-XX	N; Motio	on failed with simple majority	GO TO "Final" subsection → (C)			
			X		(/	4)	Withdrawn (counted under h in disp	oosition)			
					(1	B)	Not related (counted under i in disp	osition)			
	(0	check if			((	C)	Related and not persuasive (significa	nt)			
Final	ap	plicable)			(I	D)	Not significant <mark>(counted under j in d</mark>	isposition)			
<u>a</u>						Ε)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS			
		10 10 - 10			(1	F)	Addressed by technical change (cou	nted under k disposition)			
		check if plicable)		Con	nmer	nt genera	ted. 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	num	number (#) of Negatives (g)								
1	Number	mber of Negatives withdrawn (h)									
0	Number of Negatives found not related (i)										
0	Number	Number of Negatives found not significant (j)									
0			egatives addressed by technic t significant)	cal change (Negative	(k)						
		X	<b>g</b> - ( <b>h</b> + <b>i</b> + <b>j</b> + <b>k</b> ) = 0	Reject is Not Valid and denominator of § VI. A	l is not included in the pproval Conditions Check						
	Final		g - (h + i +j + k) >0		Reject is included in the denominator of § VI.  Approval Conditions Check						
		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* ¶ 9.6.1.4.5.2)

#### IV. Other Technical Issues

Note: TC Chapter may choose to address a technical issue that is not part of a Negative received on a Letter Ballot (i.e., a Comment or a reason not addressed by a Vote response) by handling it as a Negative and finding it related and technically persuasive. The TC Chapter may then fail the Document or address such technical issue by using the procedure defined in *Regulations* § 9.6.1.4.3 to make a technical change to the Document. (*Regulations* ¶ 9.6.1.4.2.5)

10 11	ie Document. (Ne	egulations ¶ 9.6.1.4.2.5)							
Те	Origin	*TF/TC Chapter to choose Comment # (Voter: Name and company) / A reason not addressed by a Vote response							
chn	Referenced	*TF/TC Chapter to fill in including text in the ballot as appropriate.							
Technical	Section/ Paragraph								
Issue	Reason	*Original Comment text, if applicable, and problem statement, including justification and suggestion, should be copied.							
	11000011								
Han	dle technical issu	e identified above as a Negative.							
		'Related' is mutually agreed upon. (Needs no motion.)  GO TO "Persuasive" subsection							
	Motion and	Negative is not related and assigned to TF. (Needs ≥2/3 votes to pass.)							
	Reason (check one)	Negative is not related and placed on agenda of current TC Chapter meeting as new business. (Needs ≥2/3 votes to pass.)							
Related	,	Reason XXXX							
þ	Motion by/ 2nd by	Name (Company)/Name (Company)							
	Discussion								
		(X <b>Y</b> -XX <b>N</b> ; Motion passed/failed.							

		14	<b>634</b> 4		[Negat	tive is not related	GO TO "Persuasive" subsection						
			of Vote		2/3 ≤ [	Negative is not r	elated]	and assigned to TF.					
	(CI	1eci	( one)		2/3 ≤	[Negative is not	related	l] and placed on ag		GO TO "Final" subsection → (B)			
					curren	t TC Chapter me	eeting a	s new business.		( )			
					Negati	ive is related and	d persua	asive. (Needs >1/3 v	otes to	pass.)			
	1	Rea	n and son ( one)		Negati	gative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
_	,		·		Reaso	ason XXXX							
Persuasive	M	otio 2 <sup>nd</sup>	n by/ by	Nam	ne (Con	mpany)/Name (C	ompany	/)					
asiv	Di	scu	ssion										
/e				XXY	Y-XX N	; Motion passed	/failed.						
	Res	ult (	of Vote			tive is related an asive.] > 1/3	d	Is a technical change	Y	GO TO "Address by Technical Change Option" subsection			
	(cl	necl	( one)			tive is related an asive.] < 2/3	d not	recommended? (check one)	N				
					2/3 ≤ [l	Negative is relat		GO TO "Final" su	bsection				
	Tec	hnic	al Chan			and not persuasive.] < 90% Commendations							
	Orig field		l section	/para	graph	number and at	least oi	ne full sentence are	e requir	ed in "FROM" and "TO"			
			FROM:	Secti	ion/Par	ragraph XXX							
		1	TO: Se	ection	/Parag	raph xxx					_		
Adc	I ≢	l											
Address	Technic		Justifi	catior	n (If ne	cessary)							
	cal Changes		FROM:	Secti	ion/Par	ragraph XXX							
echi	ang		TO: Se	ection	/Parag	raph xxx							
nical	es	2											
by Technical Change Option			Justifi	cation	n (If ne	cessary)							
ige O	Mot	ion			Ne	egative is addres	ssed by	the technical change	e(s).				
ptic	Mot	ion	by/2 <sup>nd</sup> b	·		ame (Company)			. ,				
n	Disc			у		ame (Company)	Traine (	(Company)					
	Disc	Just	51011			X Y-XX N; Motio	n noon	od/failed					
					^/		•		. ,	GO TO "Incorporation of	of		
			sult of V heck on			2/3 ≤ [Negative change(s).]	e is add	ressed by the techni	ıcal	the Technical Change" subsection			
		•		•				ssed by the technica	al	GO TO "Final"			
						change(s).] < 2	2/3			subsection → (E)			

		Motion			To incorporate the technical change(s).									
	Inc. Te			Name (Company)/Name (Company)										
	ncorporati Technical													
	ratior cal C				X	< Y-XX N; I	Motion passed/failed.							
	on of the Change					gree to incorporate.]	GO TO "Final" subsection → (F)							
	e				[Disagree to incorporate.] >10%		e to incorporate.] >10%	GO TO "Final" subsection → (E)						
					(B)		Not related							
												(C)	Related and not persuasive	
Final	(check one)			(1		(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS						
_						(F)	Addressed by technical change							
		check if plicable)		Co	mm	ent genera	ted. See Section V-(ii) Comment # X.							

## V. Comments

V- (i) Voters' Comments
Commenter 1 (Albert Fuchigami / PEER Group) - Comment 1

		(2 1110 01		ichiganii / T EER Group/ - Gomment 1						
Com	*TF	F/TC Chapter to fill in section/paragraph #, if necessary.								
Comment	attri	Comment #1 - Revision 1 - IRDS is trademarked. Think first instance of this needs to be properly attributed per Style Manual. Think trademark notation and footnote of can be addressed via Editorial Changes.								
	The	The TC Chapter agreed to do one of the following actions.								
	*No	*No motion is required in this step.								
▶		Already ad	ddres	ssed by Commenter #, Comment #						
Action		No further	actio	on was taken by the TC Chapter.						
ľ		Refer to the	ne TF	for more consideration.						
		New Busin	ness							
	Х	Editorial C	Chan	ge						
		Options		Case 1: No vote in this section:						
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.						
		change (check		Case 2: Voted in this section:						
		one)	Х	Original section number and at least one full sentence are required in "FROM" and "TO" fields.						
Editorial	1	1.4 Semi geometrie This Doci appropriat	cond s. Ad umer te for	on/Paragraph 1.4 luctor process technology continues to move toward smaller product exceptable static charge levels continue to decrease with product feature size. It provides recommendations for equipment static charge limits that are the product being manufactured, referencing the feature sizes contained in al Roadmap for Devices and Systems (IRDS).						

#### TO: Section/Paragraph 1.4

1.4 Semiconductor process technology continues to move toward smaller product geometries. Acceptable static charge levels continue to decrease with product feature size. This Document provides recommendations to help assure that facility static charge limits are appropriate for the product being manufactured, referencing the feature sizes contained in the International Roadmap for Devices and Systems. (IRDS TM 1).

<sup>1</sup> International Roadmap for Devices and Systems and IRDS trademarks are owned by the Institute of Electrical and Electronics Engineers.

#### **Justification (If necessary)**

Compliance with Regulations, Procedure Manual, and Style Manual.

Motion	To approve above editorial change(s)
Motion by/2 <sup>nd</sup> by	By: Charles McClain / Micron Technology, Inc. Second: Albert Fuchigami / PEER Group Inc.
Discussion	None
Vote	14 Y-0 N; Motion passed.

Commenter 1 (Albert Fuchigami / PEER Group) - Comment 2

The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  Already addressed by Commenter #, Comment #  No further action was taken by the TC Chapter.  Refer to the TF for more consideration.  New Business  X Editorial Change  Case 1: No vote in this section:  To be included and voted on as a group in § VI. Editorial Change than Those Voted on in § V.  Case 2: Voted in this section:  Original section number and at least one full sentence are resulted in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices	me	IIIC	I (Albei	u	uchigami / PEER Group) - Comment 2						
The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  The TC Chapter agreed to do one of the following actions.  Already addressed by Commenter #, Comment #  No further action was taken by the TC Chapter.  Refer to the TF for more consideration.  New Business  X Editorial Change  Case 1: No vote in this section:  To be included and voted on as a group in § VI. Editorial Change than Those Voted on in § V.  Case 2: Voted in this section:  Original section number and at least one full sentence are respectively.  The TC Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 reconsisting the international Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Syst	Com	*TF	*TF/TC Chapter to fill in section/paragraph #, if necessary.								
Already addressed by Commenter #, Comment #  No further action was taken by the TC Chapter.  Refer to the TF for more consideration.  New Business  x Editorial Change  Options for editorial change (check one)  To be included and voted on as a group in § VI. Editorial Change (check one)  To be included and voted on as a group in § VI. Editorial Change (check one)  FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 reconsider in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Systems (IRD	ment										
Already addressed by Commenter #, Comment #  No further action was taken by the TC Chapter.  Refer to the TF for more consideration.  New Business  x Editorial Change  Options for editorial change (check one)  To be included and voted on as a group in § VI. Editorial Change (check one)  Case 1: No vote in this section:  To be included and voted on as a group in § VI. Editorial Change (check one)  To included and voted on as a group in § VI. Editorial Change (check one)  Case 2: Voted in this section:  Original section number and at least one full sentence are re "FROM" and "TO" fields.  FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recordelectrostatic levels, as well as to synchronize with the major changes in technology Roadmap for Semiconductors (IRDS).  TO: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recordelectrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary)  Correct error in acronym.  Motion  To approve above editorial change(s)  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None		The TC Chapter agreed to do one of the following actions.									
No further action was taken by the TC Chapter.  Refer to the TF for more consideration.  New Business  x Editorial Change  Options for editorial change (check one)  To be included and voted on as a group in § VI. Editorial Change (check one)  Case 1: No vote in this section:  To be included and voted on as a group in § VI. Editorial Change (check one)  To section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recording in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary)  Correct error in acronym.  Motion  To approve above editorial change(s)  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None		*No motion is required in this step.									
Refer to the TF for more consideration.  New Business  x Editorial Change  Options for editorial change (check one)  To be included and voted on as a group in § VI. Editorial Change (check one)  Case 2: Voted in this section:  Original section number and at least one full sentence are re "FROM" and "TO" fields.  FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 record electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap	8		Already ad	ddre	ssed by Commenter #, Comment #						
Refer to the TF for more consideration.  New Business  x Editorial Change  Options for editorial change (check one)  FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 record electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Dev			No further	acti	on was taken by the TC Chapter.						
Options for editorial change  Case 1: No vote in this section:  To be included and voted on as a group in § VI. Editorial Change than Those Voted on in § V.  Case 2: Voted in this section:  Original section number and at least one full sentence are reference electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Systems (IRDS) (for			Refer to the	ne T	F for more consideration.						
Options for editorial change (check one)  FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 reconsidered in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary) Correct error in acronym.  Motion by/2 <sup>nd</sup> by  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None			New Busir	ness							
To be included and voted on as a group in § VI. Editorial Change than Those Voted on in § V.  Case 2: Voted in this section:  Original section number and at least one full sentence are refered in the section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 reconsisted levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary) Correct error in acronym.  Motion by/2 <sup>nd</sup> by  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None		Χ	Editorial C	han							
than Those Voted on in § V.  change (check one)  Togginal section number and at least one full sentence are re "FROM" and "To" fields.  FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recordelectrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (IRDS).  TO: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recordelectrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary) Correct error in acronym.  Motion  To approve above editorial change(s)  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None											
Check one   X											
FROM: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recording electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (IRDS).  TO: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recording electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary)  Correct error in acronym.  Motion by/2 <sup>nd</sup> by By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None			(check	k x	Case 2: Voted in this section:						
12.6.3 It is desirable in this Document to harmonize with SEMI E129 recording electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (IRDS).  TO: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recording electrostatic levels, as well as to synchronize with the major changes in technology in the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Semiconductors (ITRDS).  Justification (If necessary) Correct error in acronym.  Motion by/2 <sup>nd</sup> by  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None					Original section number and at least one full sentence are required in "FROM" and "TO" fields.						
Justification (If necessary) Correct error in acronym.  Motion To approve above editorial change(s)  Motion by/2 <sup>nd</sup> by By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None  None	Edito		12.6.3 It electrostation the Int	is d tic le erna	desirable in this Document to harmonize with SEMI E129 recommended evels, as well as to synchronize with the major changes in technology mapped ational Roadmap for Devices and Systems (IRDS) (formerly International						
Motion  To approve above editorial change(s)  Motion by/2 <sup>nd</sup> by  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None  None	rial Changes	1	TO: Section/Paragraph 12.6.3  12.6.3 It is desirable in this Document to harmonize with SEMI E129 recomme electrostatic levels, as well as to synchronize with the major changes in technology main the International Roadmap for Devices and Systems (IRDS) (formerly International Roadmap for Devices and Systems (IRDS)								
Motion by/2 <sup>nd</sup> by  By: Albert Fuchigami / PEER Group Inc. Second: Vladimir Kraz / BestESD Technical Services  None  None											
Second: Vladimir Kraz / BestESD Technical Services  None	Mc	otion	1		To approve above editorial change(s)						
Discussion	Motion by/2 <sup>nd</sup> by										
Vote 13 V 0 N: Motion passed	Dis	scus	sion		None						
To 1-0 N, Motion passed.	Vo	te			13 Y-0 N; Motion passed.						

This table is needed for each Comment accompanied a Vote

#### Commenter 2 (Clark Cao / Naura) - Comment 1

\*TF/TC Chapter to fill in section/paragraph #, if necessary.

Co	It is	It is recommended to refer to the latest roadmap IRDS2020.								
	The	The TC Chapter agreed to do one of the following actions.								
	*No	*No motion is required in this step.								
P		Already add	dressed by Commenter #, Comment #							
Action	Х	No further a	action was taken by the TC Chapter.							
		Refer to the	e TF for more consideration.							
		New Busine	ess							
		Editorial Ch	5							
		Options	Case 1: No vote in this section:							
		for editorial	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.							
		change (check	Case 2: Voted in this section:							
		one)	Original section number and at least one full sentence are required in "FROM" and "TO" fields.							
Edito		FROM: Se	ction/Paragraph xxx							
Editorial Changes	1	TO: Section	on/Paragraph xxx							
naes			on (If necessary) with Regulations, Procedure Manual, and Style Manual.							
M	otion	1	To approve above editorial change(s)							
M	otion	by/2 <sup>nd</sup> by	Name (Company)/Name (Company)							
Di	scus	ssion	XXXX							
Vo	ote		XX Y-XX N; Motion passed/failed.							

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

Comment (Created by Handling Negative) NC - 1

رر	*TF/TC Chapter to fill in									
Comment										
nt										
Acti	The TC Chapter agreed to do one of the following actions.									
C <del>t</del> i	*No motion is required in this step.									

		Already add	ressed by Commenter #, Comment #					
		No further a	ction was taken by the TC Chapter.					
		Refer to the TF for more consideration.						
		New busine	ss					
		Editorial cha						
		Options	Case 1: No vote in this section:					
		for editorial	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.					
		change (check	Case 2: Voted in this section:					
		one)	Original section number and at least one full sentence are required in "FROM" and "TO" fields.					
		FROM: Section/Paragraph xxx						
Edi	1	TO: Section/Paragraph xxx						
torial (		Justification (If necessary)						
Editorial Changes		FROM: Section/Paragraph xxx						
S	2	TO: Section/Paragraph xxx						
		Justification (If necessary)						
M	otion	1	To approve above editorial change(s)					
M	otion	by/2 <sup>nd</sup> by	Name (Company)/Name (Company)					
Di	iscus	ssion	XXXX					
V	ote	_	XX Y-XX N; Motion passed/failed.					

This table is needed for each Comment created by handling Negative.

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

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

	Origin of this editorial change (Check one)		Commenter(s) / Comment(s) #					
			Other, brought up during meeting					
1	FROM: Section/Paragraph Section 4.6  IRDS 2017— International Roadmap for Devices and Systems <sup>8</sup> (Formerly ITRS 1999, 2002, 201 International Technology Roadmap for Semiconductors – ITRS <sup>9</sup> )  8 Institute of Electrical and Electronics Engineers, IEEE Operations Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, New 08855-1331, USA. Telephone: +1.732.981.0060; Fax: +1.732.562.6380; https://irds.ieee.org  9 ITRS Worldwide Distribution Center; http://public.itrs.net							

	TO: Section/Paragraph Section 4.6  IRDS 2017— International Roadmap for Devices and Systems <sup>8</sup> (Formerly ITRS 1999, 2002, 2011— International Technology Roadmap for Semiconductors—ITRS)  8 Institute of Electrical and Electronics Engineers, IEEE Operations Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, New Jersey 08855-1331, USA. Telephone: +1.732.981.0060; Fax: +1.732.562.6380; https://irds.ieee.org  9 ITRS Worldwide Distribution Center; http://public.itrs.net. ITRS trademark is owned by the Semiconductor Industry Association®.  Justification: (If necessary) To comply with the Style Manual.								
		chis editorial change Commenter(s) / Comment(s) #  Check one)  Other [ ]							
2	FROM: S	FROM: Section/Paragraph XXX							
	TO: Secti	TO: Section/Paragraph XXX							
	Justificat	Justification: (If necessary)							
I	Motion	To approve the above editorial change(s).							
M	otion by/ 2 <sup>nd</sup> by	By: Charles McClain / Micron Technology, Inc. Second: Vladimir Kraz / BestESD Technical Services							
Dis	scussion	None							
	Vote	13 Y-0 N: Motion passed							

## **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	=	29	/	29	=	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 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.

## III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Kokusai Electric)
Voter Reject 1 (Voter: Mitsuhiro Matsuda / Kokusai Electric)

Negative 1

	Referenced	*TF/TC Chapter to fill in, including text in the ballot if n	ecessary.						
	Section/ Paragraph	Background Statement							
Negative		*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.  "date, time, and location of the TC Chapter review of Letter Ballot" is not written at Background.  Metrics GTC has already decided to adopt Official Virtual TC Chapter Meetings. So there is no issue to write "date, time, and location of the TC Chapter review of Letter Ballot".  This violates Regulation § 9.5.  9.5 Letter Ballot Review Timing — Letter Ballot Review shall be completed at the scheduled date and location of the TC Chapter meeting as described in the Background Statement of the Letter Ballot (see Procedure Manual ¶ 2.6.4.1).							
е	Negative Text	meetings due to force majeure (e.g., natural disaster, vinfrastructure at the meeting location described in the Letter Ballot), Letter Ballot Review in question shall be rescheduled TC Chapter meeting. If rescheduling is not changed to a meeting of a TC Chapter other than the CTC Chapter would become the Responsible TC Chapter cochairs of the Originating TC Chapter, and approved EXCEPTION 2: If the TC Chapter assessment of any parelevant to the Document is postponed in accordance Review shall be completed during the next scheduled	EXCEPTION 1: If Standards staff decides to postpone a set of scheduled Standards meetings due to force majeure (e.g., natural disaster, war, loss of necessary infrastructure at the meeting location described in the Background Statement of the Letter Ballot), Letter Ballot Review in question shall be completed during the rescheduled TC Chapter meeting. If rescheduling is not practical, review may be changed to a meeting of a TC Chapter other than the Originating TC Chapter (i.e., this TC Chapter would become the Responsible TC Chapter) if agreed upon by the cochairs of the Originating TC Chapter, and approved by the GCS (see ¶ 5.7.6.1d). EXCEPTION 2: If the TC Chapter assessment of any patented technology that may be relevant to the Document is postponed in accordance with § 16.3.3.2, the Letter Ballot Review shall be completed during the next scheduled meeting of the Responsible TC Chapter, at which the last one of the postponed assessments of patented						
TF	input (optional)								
	Withdrawal	No Negative withdrawal made by Voter.	GO TO "Related" subsection						
	(check one)	X Withdrawal document received by Standards staff on 03/23/2021.	GO TO "Final" subsection → (A)						
	Motion and	'Related' is mutually agreed upon. (Needs no motion	GO TO "Persuasive" subsection						
	Reason	Negative is not related. (Needs ≥2/3 votes to pass.)							
Related	(check one)	Reason XXXX							
ted	Motion by/ 2 <sup>nd</sup> by	Name (Company)/Name (Company)							
	Discussion								

				XX <b>Y</b> -XX <b>N</b> ; Motion passed/failed.								
	Result of Vote (check one)				[Negative is not related	d.] < 2/	3			GO TO "Persuasive" subsection		
				,	2/3 ≤ [Negative is not r	elated	GO TO "Final" subsection → (B)					
					Negative is related and	ative is related and persuasive. (Needs >1/3 votes to pass.)						
	ĺ	Reas	and son one)		Negative is related and	ative is related and not persuasive. (Needs ≥2/3 votes to p						
	(0.		,		Reason	XXXX	<					
P		otio 2 <sup>nd</sup>	n by/ by	Nam	e (Company)/Name (C	compa	ny)					
ers	Di	scus	sion									
Persuasive				XX Y	'-XX <b>N</b> ; Motion passed	l/failed						
ive					[Negative is related an persuasive.] > 1/3	egative is related and			Y	GO TO "Address by Technical Change Option" subsection		
			one)		[Negative is related an persuasive.] < 2/3		(check one)		N	GO TO "Final" subsection → (E)		
					2/3 ≤ [Negative is relat and not persuasive.] <		ctio	$n \rightarrow (C)$				
					90% ≤ [Negative is rela and not persuasive.]							
	Technical Change Recor Original section/paragra fields.					least	one full sentence	are i	requ	iired in "FROM" and "TO"		
Ac			FROM:	Section/Paragraph XXX								
Addres		1	TO: Se	ction	/Paragraph xxx							
ss by T	Technical		Justific	ation	ı (If necessary)							
[echn	nical (		FROM:	Secti	on/Paragraph XXX							
ica	Cha											
l Chan	Changes	2	TO: Se	ction	/Paragraph xxx							
by Technical Change Option			Justific	ation	ı (If necessary)							
ion	Motic	on			Negative is addres	ssed by	y the technical cha	nge(s	s).			
	Motio	on b	y/2 <sup>nd</sup> by	<u></u>	Name (Company)/	/Name	(Company)					
	Disc	ussi	on									
	Result of Vote				XX Y-XX N; Motio	n pass	sed/failed.					

		(check on	e)			2/3 ≤ [Ne change(s	egative is addressed by the technical s).]	GO TO "Incorporation of the Technical Change" subsection	
						[Negative change(s	e is not addressed by the technical s).] < 2/3	GO TO "Final" subsection  → (E)	
		Motion			To ir	ncorporat	te the technical change(s).		
	Inco	Motion by/	2 <sup>nd</sup> k	у	Nam	e (Comp	any)/Name (Company)		
	Incorporation of the Technical Change	Discussion	1						
	ntio al C				XX Y	/-XX N; N	lotion passed/failed.		
	n of ti hang	Result o				90% ≤ [A	gree to incorporate.]	GO TO "Final" subsection → (F)	
	,	(check				. 0	e to incorporate.]>10%	GO TO "Final" subsection → (E)	
Z							C Chapter finds a Negative not pers g on the action". ( <i>Regulations</i> ¶ 9.6.		
ot Siç	Use of "Not				mutu ificar		ed upon to term the Negative "not	GO TO "Final" subsection → (D)	
Not Significant Finding Option	sig findi			mutu nifica		ed upon to term the Negative	GO TO "Final" subsection → (C)		
ξFi	,			Whe	/hether or not the Negative is "not significant" is decided by a vote.				
ndii	ľ	Motion	The	Neg	ative	is "not si	gnificant".		
ng Op		otion by/ 2 <sup>nd</sup> by	Nan	ne (C	Company)/Name (Company)				
tion		Vote		XX Y	Y-XX	N; Motio	n passed with simple majority	GO TO "Final" subsection → (D)	
		VOLE		XX	Y-XX	N; Motio	n failed with simple majority	GO TO "Final" subsection → (C)	
			X		(/	<b>A</b> )	Withdrawn <mark>(counted under h in disp</mark>	osition)	
					<b>(E</b>	3)	Not related (counted under i in disp	osition)	
	(0	check if			(0	C)	Related and not persuasive (significa	nt)	
Final		plicable)			([	<b>)</b> )	Not significant <mark>(counted under j in d</mark> i	sposition)	
a					(E	≣)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS	
					(F	=)	Addressed by technical change (cour	nted under k disposition)	
	(check if applicable)			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)
1	Number of Negatives withdrawn	(h)
0	Number of Negatives found not related	(i)
0	Number of Negatives found not significant	(j)

0		r of Negatives addressed by technical change (Negative es not significant) (k)								
	Final	X	g - (h + i + j + k) = 0 Reject is Not Valid and is not included in the denominator of § VI. Approval Conditions Ch							
			g - (h + i +j + k) >0	Reject is included in the Approval Conditions Conditions Conditions						
			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* ¶ 9.6.1.4.5.2)

# IV. Other Technical Issues None.

## V. Comments 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	=	28	/	28	=	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.

## III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Kokusai Electric)
Voter Reject 1 (Voter: Mitsuhiro Matsuda / Kokusai Electric)

Negative 1

	Referenced Section/ Paragraph		TC Chapter to fill in, including text in the ballot if neckground Statement	essary.				
Negative	Paragraph  Negative Text	*Ori cop "dat Bac Met ther Ball This 9.5 sch Bac EXC mee infra Lett reso cha TC (coc EXC	ginal complete Negative text (e.g., issue, justification ied.  te, time, and location of the TC Chapter review of Lett kground.  rics GTC has already decided to adopt Official Virtual re is no issue to write "date, time, and location of the ot".  s violates Regulation § 9.5.  Letter Ballot Review Timing — Letter Ballot Review sleeduled date and location of the TC Chapter meeting a kground Statement of the Letter Ballot (see Procedur EPTION 1: If Standards staff decides to postpone a setings due to force majeure (e.g., natural disaster, was astructure at the meeting location described in the Baller Ballot), Letter Ballot Review in question shall be concluded TC Chapter meeting. If rescheduling is not proceed to a meeting of a TC Chapter other than the Originating of the Originating TC Chapter, and approved by EEPTION 2: If the TC Chapter assessment of any pate vant to the Document is postponed in accordance with the content of the content is postponed in accordance with the content is postponed in the content is postponed in the content is postponed in accordance with the content is postponed in accordance with the content is postponed in the content is postponed in the content is postponed in accordance with the content is postponed in the conten	rer Ballot" is not written at  TC Chapter Meetings. So TC Chapter review of Letter  Thall be completed at the as described in				
		Cha	iew shall be completed during the next scheduled me pter, at which the last one of the postponed assessm mologies in accordance with § 16.3.3.2 is conducted.	ents of patented				
TFi	input (optional)							
	Withdrawal (check one)		No Negative withdrawal made by Voter.	GO TO "Related" subsection				
			Withdrawal document received by Standards staff on 03/23/2021.	GO TO "Final" subsection → (A)				
Relat ed	Motion and Reason		'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection				
_ at	(check one)		Negative is not related. (Needs ≥2/3 votes to pass.)					

					Reason XXXX								
		otio 2 <sup>nd</sup>	n by/ by	Nan	Name (Company)/Name (Company)								
Discussion													
				XX '	Y-XX N; Motion passed	/failed							
			of Vote		[Negative is not related	.] < 2/3	3			GO TO "Persuasive" subsection			
	(01.		· One,		2/3 ≤ [Negative is not re	elated.	.]			GO TO "Final" subsection → (B)			
	24.	41	4		Negative is related and	persu	nasive. (Needs >1/	/3 vot	tes t	to pass.)			
	F	Reas	n and son ( one)		Negative is related and	not pe	ersuasive. (Needs	≥2/3	vot	es to pass.)			
	(0	66.	· One,		Reason	XXXX	(						
_		otio 2 <sup>nd</sup>	n by/ by	Nam	ne (Company)/Name (Co	ompar	ny)						
ers			ssion										
Persuasive				XX '	XX <b>Y</b> -XX <b>N</b> ; Motion passed/failed.								
ve	Pas	··I <b>+</b> ,	of Vote		[Negative is related and persuasive.] > 1/3		Is a technical change recommended?			GO TO "Address by Technical Change Option" subsection			
			( one)		[Negative is related and persuasive.] < 2/3		(check one)		N	GO TO "Final" subsection → (E)			
					2/3 ≤ [Negative is relate and not persuasive.] < !		GO TO "Final" subsection → (C)						
					90% ≤ [Negative is rela and not persuasive.]	ited	GO TO "Not Significant Finding Option" subsection						
	Tech	nica	I Chang	je Re	ecommendations								
Address	Origii fields		section/	para	graph number and at	least o	one full sentence	are i	requ	ired in "FROM" and "TO"			
ss t			FROM:	Sect	ion/Paragraph XXX								
у Те			TO: Se	ction	n/Paragraph xxx								
chn	Tec		luetific	atio	n (If necessary)								
ical (	hnic	Ш		fication (If necessary)									
Chang	Technical Changes		FROM: \$	Secti	ion/Paragraph XXX								
by Technical Change Option	nges	2	TO: Sec	ction	n/Paragraph xxx								
ă	Justification (If necessary)												

	Motic	n		1	Nega	ative is a	addressed by the technical change(s).				
	Motic	on by/2 <sup>nd</sup> by	у	1	Name (Company)/Name (Company)						
	Discu	ıssion									
				)	XX Y	′-XX N:	Motion passed/failed.				
		Result of Vote (check one)					legative is addressed by the technical	GO TO "Incorporation of the Technical Change" subsection			
		•	,				ve is not addressed by the technical (s).] < 2/3	GO TO "Final" subsection → (E)			
		Motion			To ir	ncorpora	ate the technical change(s).				
	nco Tec	Motion by/	/2 <sup>nd</sup> b	y	Nam	e (Com	pany)/Name (Company)				
	rpora	Discussio	n								
	ation			)	XX Y	<b>′-XX N</b> ;	Motion passed/failed.				
	Incorporation of the Technical Change	Result o				90% ≤ [	Agree to incorporate.]	GO TO "Final" subsection  → (F)			
	he e	(check	one)			[Disagre	ee to incorporate.]>10%	GO TO "Final" subsection → (E)			
7							TC Chapter finds a Negative not persing on the action". ( <i>Regulations</i> ¶ 9.6				
lot Siç	Us	e of "Not		It is r signi			eed upon to term the Negative "not	GO TO "Final" subsection → (D)			
Not Significant Finding Optio	siç findi	significant finding option" (check one)		It is r "sign			eed upon to term the Negative	GO TO "Final" subsection → (C)			
Ħ.	(01)	ook one,		Whe	ther	or not th	ne Negative is "not significant" is decide	ed by a vote.			
ndi	ı	Motion	The	Nega	ative	is "not s	significant".				
ng Op		otion by/ 2 <sup>nd</sup> by	Nam	ie (Co	(Company)/Name (Company)						
tion				XX Y	′-XX	N; Moti	on passed with simple majority	GO TO "Final" subsection → (D)			
		Vote		XX Y	′-XX	N; Moti	on failed with simple majority	GO TO "Final" subsection → (C)			
			X		(A	<b>A</b> )	Withdrawn (counted under h in disp	position)			
					(E	3)	Not related (counted under i in disp	position)			
	(0	check if			(0	C)	Related and not persuasive (significa	nnt)			
Final		plicable)			(D) Not significant (counted under j in			lisposition)			
<u>a</u>					(E		Related and persuasive and not addressed by technical change	DOCUMENT FAILS			
	_				(F	-)	Addressed by technical change (cou	nted under k disposition)			
		check if			nment 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	num	ber (#) of Negatives	(g)				
1	Number	of N	egatives withdrawn		(h)			
0	Number	of N	egatives found not related		(i)			
0	Number	of N	egatives found not significant		(j)			
0			egatives addressed by technic t significant)	cal change (Negative	(k)			
		X	<b>g</b> - ( <b>h</b> + <b>i</b> + <b>j</b> + <b>k</b> ) = 0	Reject is Not Valid and is not included in the denominator of § VI. Approval Conditions Check				
	Final		g - (h + i +j + k) >0	Reject is included in the Approval Conditions	ne denominator of § VI. Check			
			Reject without a Negative					

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* ¶ 9.6.1.4.5.2)

#### IV. Other Technical Issues

#### **V. Comments**

## V- (i) Voters' Comments

#### Commenter 1 (Clark Cao / Naura) - Comment 1

Comment	*TF	*TF/TC Chapter to fill in section/paragraph #, if necessary.								
nent	It is recommended to refer to the latest roadmap IRDS2020.									
	The	e TC Chapt	er aç	greed to do one of the following actions.						
	*No	motion is	requ	uired in this step.						
Δ		Already ad	ddres	ssed by Commenter #, Comment #						
Action	Х	No further	actio	on was taken by the TC Chapter.						
ľ		Refer to the	ne TF	for more consideration.						
		New Busin	ness							
		Editorial C	Chang	ge						
		Options		Case 1: No vote in this section:						
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.						
		change (check		Case 2: Voted in this section:						
		one)		Original section number and at least one full sentence are required in "FROM" and "TO" fields.						

Editorial	1	FROM: Sec	ction/Paragraph xxx
		TO: Section	n/Paragraph xxx
Changes			on (If necessary) with Regulations, Procedure Manual, and Style Manual.
М	otior	1	To approve above editorial change(s)
М	Motion by/2 <sup>nd</sup> by		Name (Company)/Name (Company)
Di	Discussion		XXXX
V	Vote		XX Y-XX N; Motion passed/failed.

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

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

### 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

		Accepts		(Accepts + Valid Rejects)			
Approval Rate	=	28	/	28	] =	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 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.

### Checks for Entire Document Including All Approved Line Items

## **VIII. Safety Check**

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

	x	TI is	<b>This is not a Safety Document</b> , when all safety-related information is removed, the Document is still technically sound and complete. ( $Regulations$ ¶ 8.7.1)										
Motion				<b>ty Document</b> , when all safety-related information is removed, the Document is not and complete. ( $Regulations$ ¶ 8.7.2)									
				ecklist ( $Regulations$ ¶ 15.3) is complete and has been included with the Document the balloting process. ( $Regulations$ ¶ 15.1.2)									
ı	Motion by/2 <sup>nd</sup> by			By: Steven Meyer / Intel Corporation Second: Vladimir Kraz / BestESD Technical Services									
	Discussion			None									
	Vote			13 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 <u>applies to the entire Standard or Safety Guideline</u> including all the approved Line Items\*. See *Regulations* § 16 for further information.

Х	that r	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.								
	х	The question is answered in affirmative	Is any of the known IPs a patented		Yes, at least one of them is a patented technology	GO TO IX (a) "Patented Technology" subsection					
			technology?	<u>x</u>	No	GO TO IX (b) "Copyright items" subsection					

#### IX(a) Patented Technologies subsection

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

the Standard/S Guideline	# Fill	(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)
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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?				se of this		YES	PROCEED to assess NEXT one, or if this is the last one, GO TO IX(a3)	
			justified <sup>1</sup>	?		NO	The Document is failed and returned to the TF	
		NO	No furth	er action is nee	eeded 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		EXT one, e, GO TO IX(b)					
		NO	MC		Ask ISC for spe	ecial permission to publish.			
			MOTION		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)			
					by/ 2 <sup>nd</sup> by	Name (Company)/Name (Company)			
				cuss	sion	XXXX			
				e		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

			itou itomo to bo uouit with	
0	(o) Known copyrighted items that are used or reproduced to the		o > 0 There is at least one known copy righted items that might be relevant to the Standard/Safety Guideline	GO TO IX (b2)
Standard/Safety Guideline	x	o = 0 There is no disclosed copyrighted item	GO TO IX (c)	

IX(b2) Assessment of disclosed copyrighted items

Disclosed copyrighted item (Brief description of its use		e Documei	<b>nt</b> ):				
Is disclosed copyrighted item #1 used or reproduced in the Standard/Safety Guideline?	X	YES	Is the use/reproduction of	X	YES PROCEED to ass NEXT one, or if this is the las GO TO IX(b3)		
		this copyrighted item technically justified?	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

Stiffed								
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	)M		Ask ISC for special permission to publish.			
			MOTION		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/ 2 <sup>nd</sup> by Name (Company)/Name (Company					
			Discussion			XXXX		
				e		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

	x		le even instance of	X	YES	GO TO IX(d)
Is there any trademark in the Standard/Safety Guideline?	YES Is every instance of trademark use technically justified?			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

ak	X		Line item(s) [2] and [3] passed TC Chapter review as balloted and will be forwarded to the ISC AoSC for procedural review.								
M (Ch	Line item(s) [1] passed TC Chapter review with editorial changes and will be forwarded to the A&R SC for procedural review.										
Motion (Check all applicable items)		editori	item(s) [X], [X] and [X] passed TC Chapter review with technical changes and with or without orial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification of will be issued to verify the technical changes.								
(S)		Line in	rem(s) [X], [X] and [X] failed TC Chapter review and will be returned to the TF for rework.								
		Line it	rem(s) [X], [X] and [X] failed TC Chapter review and work will be discontinued.								
Motion by	y/ 2n	d by	By: Vladimir Kraz / BestESD Technical Services Second: Larry Levit / LBL Scientific								
Discussion None											
Vo	te	12 Y-0 N									
Final A	atio	_	x Motion passed								
Final A	ACUO	111	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.