

Record of Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: **Korea**

Global Technical Committee: **FPD Metrology**

TC Chapter Cochairs: **Kyungjin Kang / LG Electronics, Jongho Chog / KwangWoon University**

Standards Staff: **Natalie Shim**

	Scheduled in Background Statement	Actual
Date	03/12/2021	03/26/2021
Location	SEMI Korea, Seoul, Korea	SEMI Korea, Seoul, Korea and OVTCCM
Reason for Change of Date and/or Location (if changed)	Force majeure caused by the corona virus.	

Note: See Regulations ¶ 9.5 Exceptions for allowable reason to change.

I. Document Number and Title

Document Number	Document Title
6644B	New Standard, Test Method for Viewing Angle of Flat Panel Displays

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:

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	30	÷ 47	= 63.8%	≥60%
Intercommittee Ballot	1			
Voting Interest Reject(s)	2	Total Voters with Rejects		2
Voting Interest Accept(s)	28			

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Sony)

Voter Reject 1 (Voter: Satoshi Tomioka / Sony)

Negative 1

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.			
	Negative Text	<p>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</p> <p>The explanation of “52 degrees” has just been moved to “Related Information 1” and is still validly referenced, which is unchanged from the current draft “6644A”.</p> <p>Since this document is a “Test Method”, the specification and the threshold description based on it should be removed.</p> <p>Ex.) Section 1.2, 4.2.5, 4.2.6, 8.1.2, 8.2.4, 8.3.5.</p>			
TF input (optional)					
Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.		GO TO “Related” subsection	
	<input type="checkbox"/>	Withdrawal document received by Standards staff on MM/DD/YYYY.		GO TO “Final” subsection → (A)	
Related	Motion and Reason (check one)	<input 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.)		
		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 → (A)	
Persuasive	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	According to the definition of viewing angle in Section 4.2.5, it requires a specified threshold to test and decide the viewing angle of displays. It is an example of the threshold in case of the 8k resolution UHDTV (See ISO standards referred in this document).			

	Motion by/ 2nd by	Kyung Jin Kang (LG Electronics) / Myong Young Lee (LG Electronics)			
	Discussion	None			
	Result of Vote (check one)	6 Y-0 N; Motion passed.			
		<input type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	<input type="checkbox"/> Y
		<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3	<input type="checkbox"/> N	GO TO “Address by Technical Change Option” subsection
<input type="checkbox"/>		2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO “Final” subsection → (C)		
<input checked="" type="checkbox"/>	90% ≤ [Negative is related and not persuasive.]	GO TO “Not Significant Finding Option” subsection			
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”.	GO TO “Final” subsection → (D)	
		<input type="checkbox"/>	It is mutually agreed upon to term the Negative “significant”.	GO TO “Final” subsection → (C)	
		<input type="checkbox"/>	Whether or not the Negative is “not significant” is decided by a vote.		
	Motion	The Negative is “not significant”.			
Motion by/ 2nd 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	DOCUMENT FAILS
	<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)		
(check if applicable)	<input type="checkbox"/>	Comment generated. See Section V-(ii) Comment # X.			

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. <i>Approval Conditions Check</i>
	<input type="checkbox"/>	$g - (h + i + j + k) > 0$	Reject is included in the denominator of § VI. <i>Approval Conditions Check</i>
	<input type="checkbox"/>	Reject without a Negative	Not Valid

Voting Interest Reject 2 (Voting Interest Name: JAD)

Voter Reject 1 (Voter: Ryoichi Watanabe / JAD)

Negative 1

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary. 5.2.1		
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied. "Contact LMD" is not necessary.		
TF input (optional)				
Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection	
	<input type="checkbox"/>	Withdrawal document received by Standards staff on MM/DD/YYYY.	GO TO "Final" subsection → (A)	
Related	Motion and Reason (check one)	<input 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.)	
	Reason	XXXX		
	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"/>	[Negative is not related.] < 2/3	GO TO "Persuasive" subsection	
	<input type="checkbox"/>	2/3 ≤ [Negative is not related.]	GO TO "Final" subsection → (A)	
Persuasive	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	Contact LMD is also available when the accuracy is guaranteed.			

	Motion by/ 2nd by	Kyung Jin Kang (LG Electronics) / Myong Young Lee (LG Electronics)				
	Discussion	None				
	Result of Vote (check one)	6 Y-0 N; Motion passed.				
			[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	Y	GO TO “Address by Technical Change Option” subsection
			[Negative is related and not persuasive.] < 2/3		N	GO TO “Final” subsection → (E)
		2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO “Final” subsection → (C)			
	X	90% ≤ [Negative is related and not persuasive.]	GO TO “Not Significant Finding Option” subsection			
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)	X	It is mutually agreed upon to term the Negative “not significant”.	GO TO “Final” subsection → (D)		
			It is mutually agreed upon to term the Negative “significant”.	GO TO “Final” subsection → (C)		
			Whether or not the Negative is “not significant” is decided by a vote.			
	Motion	The Negative is “not significant”.				
Motion by/ 2nd by	Name (Company) / Name (Company)					
	Vote		XX Y-XX N; Motion passed with simple majority	GO TO “Final” subsection → (D)		
			XX Y-XX N; Motion failed with simple majority	GO TO “Final” subsection → (C)		
Final	(check if applicable)		(A)	Withdrawn (counted under h in disposition)		
			(B)	Not related (counted under i in disposition)		
			(C)	Related and not persuasive (significant)		
		X	(D)	Not significant (counted under j in disposition)		
			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS	
			(F)	Addressed by technical change (counted 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

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1	Number of Negatives found not significant	(j)

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

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

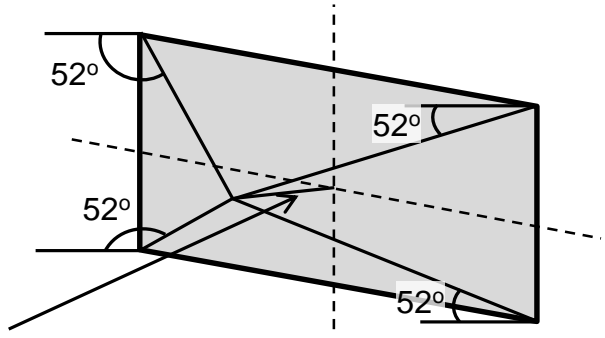
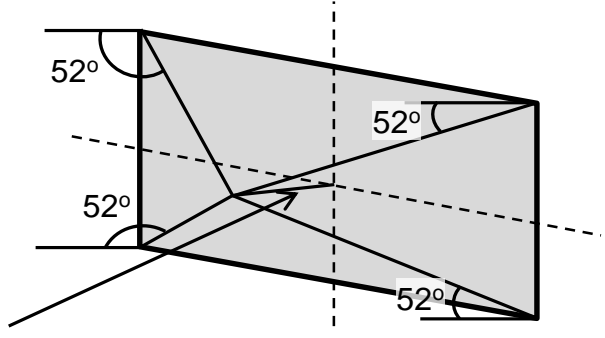
Commenter 1 (Ryoichi Watanabe / JAD) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.		
	There are two "Figure R1-1"		
Action	The TC Chapter agreed to do one of the following actions.		
	*No motion is required in this step.		
		Already addressed by Commenter #, Comment #	
		No further action was taken by the TC Chapter.	
		Refer to the TF for more consideration.	
		New Business	
	X	Editorial Change	
Options for editorial change (check one)	X	Case 1: No vote in this section: To be included and voted on as a group in § VI. <i>Editorial Changes Other than Those Voted on in § V.</i>	
		Case 2: Voted in this section:	
		Original section number and at least one full sentence are required in "FROM" and "TO" fields.	

This table is needed for each Comment accompanied a Vote

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)		<input checked="" type="checkbox"/> Ryoichi Watanabe / Comment 1
		<input type="checkbox"/> Other []
1	FROM:	 <p>0.8*height (viewing distance) 16:9 screen</p> <p>Figure R1-1 Maximum viewing direction to the screen corner in TC application</p>
	TO:	 <p>0.8*height (viewing distance) 16:9 screen</p> <p>Figure R1-42 Maximum viewing direction to the screen corner in TC application</p>
Justification: (If necessary)		
Type		
Motion	To approve the above editorial change.	
Motion by/ 2 nd by	Kyung Jin Kang (LG Electronics) / Myong Young Lee (LG Electronics)	
Discussion	None	
Vote	6 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	=	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):

The Letter Ballot meets the Letter Ballot approval conditions for the global technical committee.

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	<input checked="" type="checkbox"/>	This is not a Safety Document , when all safety-related information is removed, the Document is still technically sound and complete. (<i>Regulations ¶ 8.7.1</i>)
	<input type="checkbox"/>	This is a Safety Document , when all safety-related information is removed, the Document is not technically sound and complete. (<i>Regulations ¶ 8.7.2</i>)
	<input type="checkbox"/>	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/2 nd by		Kyung Jin Kang (LG Electronics) / Myong Young Lee (LG Electronics)
Discussion		None
Vote		6 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)			
X	The question is NOT answered in affirmative (No potentially material patented technology or use/reproduction of copyrighted items/trademarks is known.)	GO TO SECTION X.		
	The question is answered in affirmative	Is any of the known IPs a patented technology?	Yes, at least one of them is a patented technology	GO TO IX (a) "Patented Technology" subsection
			No	GO TO IX (b) "Copyright items" subsection

X. Action for This Document

Motion		This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
	X	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		Kyung Jin Kang (LG Electronics) / Myong Young Lee (LG Electronics)
Discussion		None
Vote		6 Y- 0 N
Final Action		X Motion passed

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.