

Record of Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: **Japan**

Global Technical Committee: **Flexible Hybrid Electronics (FHE)**

TC Chapter Cochairs: **Tadahiro Furukawa/ Yamagata University, Satoshi Maeda/ Hiroshima City University, Ryoichi Watanabe/ Self**

Standards Staff: **Nahoko Koga**

	Scheduled in Background Statement	Actual
Date	10/17/2025	10/17/2025
Location	KOMORI CORPORATION/ Virtual (Hybrid)	KOMORI CORPORATION/ Virtual (Hybrid)
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 6906A	Document Title New Standard: Terminology for Flexible Hybrid Electronics (FHE)
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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 Vote		Distributio		Return Rate	
Letter Ballot	27	÷	37	=	73.0%	≥60%
Intercommittee Ballot	42					
Voting Interest Reject(s)	0		Total Voters with Rejects		0	
Voting Interest Accept(s)	47					

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

III. Rejects

None

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

Commenter 1 (**Daniel Slep/ ChemCubed**) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	5.2.10 conductive ink is not only a paste, also inks for inkjet, etc	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	X	New Business

This table is needed for each Comment accompanied a Vote

Commenter 2 (**Stephen Gonya/Binghamton University (SUNY)**) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.		
	For NOTE 30, change "screen printing" to "stencil printing". Cutting a metal mask to print solder paste is considered stencil printing.		
Action	The TC Chapter agreed to do one of the following actions.		
	*No motion is required in this step.		
	X	Editorial Change	
	Options for editorial change (check one)		Case 1: No vote in this section: To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
		X	Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
	1		FROM: Section/Paragraph 5.5.4.1 solder printing and solder printing machine NOTE 30: The solder printing machine is a screen printing machine specialized for printing solder paste.
		TO: Section/Paragraph 5.5.4.1 solder printing and solder printing machine Delete NOTE 30	
Motion		To approve above editorial change(s)	
Motion by/2 nd by		By: Satoshi Maeda (Hiroshima City University) Second: Hideki Ikeda (KOMORI CORPORATION)	

Discussion	None
Vote	5Y-0 N; Motion <i>passed</i> .

Commenter 3 (Clark Cao/NAURA) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	Please add a terminology cross-walk to IPC 6901/6902/9204, and include worked examples clarifying FPC vs. FHE and the “printed electronics” criterion (if any layer is printed, it qualifies) to ensure consistent interpretation across suppliers.	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	X	No further action was taken by the TC Chapter.

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	=	47	/	47	=	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): 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	X	This is not a Safety Document , when all safety-related information is removed, the Document is still technically sound and complete. (<i>Regulations</i> ¶ 8.7.1)
		This is a Safety Document , when all safety-related information is removed, the Document is not technically sound and complete. (<i>Regulations</i> ¶ 8.7.2)
		Safety Checklist (<i>Regulations</i> ¶ 15.3) is complete and has been included with the Document throughout the balloting process. (<i>Regulations</i> ¶ 15.1.2)
Motion by/2 nd by		By: Satoshi Maeda (Hiroshima City University) Second: Manabu Ito (TOPPAN Inc.)
Discussion		None
Vote		4 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/ 2 nd by		By: Hideki Ikeda (KOMORI CORPORATION) Second: Manabu Ito (TOPPAN Inc.)
Discussion		None
Vote		5 Y-0 N
Final Action	X	Motion passed
		Motion failed

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