

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

**SAMSUNG ELECTRONICS CO., LTD. AND
SAMSUNG ELECTRONICS AMERICA, INC.,**
Petitioners

v.

MAXELL LTD.,
Patent Owner

Inter Partes Review No. IPR2025-01308
U.S. Patent No. 11,277,650

**PETITIONERS' REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE**

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INDEX OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 11,277,650.
1002	Declaration of Joseph Paradiso.
1003	File History of U.S. Patent No. 11,277,650.
1004	Certified English Translation of WO 2005/094080 (“Shindo”).
1005	WO 2005/094080 (“Shindo”).
1006	Certified English translation of Japanese Patent App. Pub. No. 2003/208375 (“Sasaki”).
1007	Japanese Patent App. Pub. No. 2003-208375 (“Sasaki”).
1008	U.S. Patent No. 6,680,940 (“Lewin”).
1009	U.S. Patent Pub. No. 2004/0010687 (“Futa”).
1010	U.S. Patent No. 5,619,250 (“McClellan”).
1011	U.S. Patent Pub. No. 2004/0231003 (“Cooper”).
1012	“Wearable Sensing for Dynamic Management of Dense Ubiquitous Media,” Laibowitz, M., Gong, N-W., and Paradiso, J.A., in the Proc. of the Sixth International Workshop on Wearable and Implantable Body Sensor Networks (BSN 2009), Berkeley, CA, June 3-5, 2009.
1013	“Metaphor and Manifestation – Cross Reality with Ubiquitous Sensor/Actuator Networks,” Lifton, J., Laibowitz, M., Harry, D., Gong, N.W., Mittal, M. and Paradiso, J.A., IEEE Pervasive Computing Magazine, July-September 2009 (Vol. 8, No. 3).
1014	“Experiences and Challenges in Deploying Potentially Invasive Sensor Systems for Dynamic Media Applications,” Gong, N-W., Laibowitz, M., and Paradiso, J.A., in Proc. of the Cloud-Mobile Convergence for Virtual Reality Workshop (CMCVR 2010), Waltham MA, March 20, 2010.
1015	“Dynamic Privacy Management in Pervasive Sensor Networks,” Gong, N-W., Laibowitz, M., and Paradiso, J.A., in Proc. of Ambient Intelligence (AmI) 2010, Malaga, Spain, 25-29 October 2010.
1016	“Multimedia Content Creation using Societal-Scale Ubiquitous Camera Networks and Human-Centric Wearable Sensing,” Laibowitz, M., Gong, N-W., and Paradiso, J.A., in Proc. of ACM Multimedia 2010, Florence Italy, 25-29 October 2010.

Exhibit No.	Description
1017	“Gestures Everywhere: A Multimodal Sensor Fusion and Analysis Framework for Pervasive Displays,” Nicholas Gillian, Sara Pfenninger, Spencer Russell, and Joseph Paradiso, in Proceedings of the International Symposium on Pervasive Displays, Copenhagen, June 2014.
1018	Musical Zoo, Vimeo (Feb. 12, 2016), https://vimeo.com/155157756 .
1019	Channarukul, S., McRoy, S.W., and Ali, S.S., “MULTIFACE: multimodal content adaptations for heterogeneous devices,” in proc. of ICMI ’04, October 13, 2004.
1020	Robertson, S., Whaton, C., Ashworth, C., and Franzke, M., “Dual Device User Interface Design: PDAs and Interactive Television,” in Proc. of the CHI ’96 Conference, April 13-18, 1996.
1021	Lippman, A. and Kermode, R., “Media Banks: Entertainment and the Internet”, IBM Systems Journal, Vol. 35, No. 3&4, 1996.
1022	Spinner. Responsive Environments. https://resenv.media.mit.edu/#Projects#spinner .
1023	Petitioners’ Stipulation
1024	Complaint dated September 7, 2023, <i>Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.</i> , Case No. 5:23-cv-92 (EDTX)
1025	Order dated July 9, 2025 (<i>Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.</i> , Case No. 5:23-cv-92 (EDTX), Dkt. 389)
1026	Order dated March 21, 2025 (<i>Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.</i> , Case No. 5:23-cv-92 (EDTX), Dkt. 251)
1027	Order dated May 2, 2025 (Dkt. 300, 5:23-cv-92-RWS; EDTX) (public version)
1028	Order dated September 18, 2025 (Dkt. 300, 5:23-cv-92-RWS; EDTX) (public version)
1029	IPR2025-00735, Paper 41 (Opposition to Motion to Submit Supplemental Information)
1030	IPR2024-00828, Paper 42 (Response to Patent Owner’s Motion to Submit Supplemental Information)
1031	IPR2024-00828, Paper 47 (Sur-reply to Patent Owner’s Motion to Submit Supplemental Information)
1033	Letter from Maxell to Samsung (July 7, 2021) [PX-020]
1034	Email thread and letter from Maxell to Samsung dated December 29, 2021 [PX-029]

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1035	Email thread between Maxell and Samsung (July 2021 – January 2022) [PX-032]
1036	Response to Post-Trial Motions (<i>Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.</i> , Case No. 5:23-cv-92 (EDTX), Dkt. 404)
1037	Infringement Contentions dated August 12, 2025 (<i>Maxell, Ltd. v. Samsung Electronics Co., Ltd, et al.</i> , Case No. 5:25-cv-52 (EDTX))
1038	IPR2024-00828, Paper 50 (Order Denying Patent Owner’s Motion to Submit Supplemental Information)
1039	IPR2024-00867, Paper 40 (Petitioner’s Response to Patent Owner’s Request for Authorization to File Materials From Related Matters)
1040	IPR2024-00717, Paper 31 (Petitioner’s Opposition to Patent Owner’s Request for Authorization to File Materials from Relate Matters)
1041	Trial Transcript from <i>Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.</i> , Case No. 5:23-cv-92 (EDTX)
1042	Motion to Stay Pending Inter Partes Review dated October 24, 2025 (<i>Maxell, Ltd. v. Samsung Electronics Co., Ltd, et al.</i> , Case No. 5:25-cv-52 (EDTX)), Dkt. 53.
1043	Infringement Contentions dated October 20, 2025 (<i>Maxell, Ltd. v. Samsung Electronics Co., Ltd, et al.</i> , Case No. 5:25-cv-52 (EDTX))

I. INTRODUCTION

Petitioners submit this Reply to alert the Director to PO's inconsistent positions on the meaning of the "association information" limitation in its POPR and in its infringement contentions in the related district court litigation.

II. ARGUMENT

A. "Association Information" (Limitation [1h])

In its infringement contentions, *filed after* the Petition, PO asserts that "association information" as recited in claims 1 and 4 is satisfied by a "device ID":

APPENDIX 2: OCTOBER 20, 2025 INFRINGEMENT CONTENTIONS APPLYING CLAIMS 1 AND 4 OF
U.S. PATENT NO. 11,277,650 TO ACCUSED SAMSUNG '650 PRODUCTS

U.S. Patent No. 11,277,650	Exemplary Evidence of Infringement
	appliances/refrigerators/all-refrigerators/?shop=Buy+Online&key_category_features=Wi-Fi+Connectivity, https://developer.smarthings.com/; https://www.samsung.com/us/smarthings/. The first SoC stores association information (i.e., device ID) for transmitting one of the contents (i.e., device name or deviceState in the Favorites and History list) to one of the fridges. To be clear, in view of Samsung's letter dated September 19, 2025, Maxell provides notice that the infringement theory for this claim element includes: the first SoC alone or in conjunction with the SmartThings cloud/platform stores association information (i.e., device ID or upon and belief a Samsung account ID) for transmitting one of the contents (i.e., device name or deviceState in the Favorites and History list) to one of the fridges.

EX1043 at 192 (annotated);

To be clear, in view of Samsung's letter dated September 19, 2025, Maxell provides notice that the infringement theory for this claim element includes: as a non-limiting example, the evidence from the GUI and the Onboarding Process demonstrates this **association information (e.g., device ID or upon and belief a Samsung account ID)**. Each entry in the "History" log links a piece of content (e.g., "Contact sensor: Door closed") with a user-facing device name (e.g., "Family Hub") via the device

EX1043 at 203 (annotated). This position is clear and unambiguous: PO's position is that a "device ID" alone can satisfy the claimed "association information." However, in its POPR, PO reverses course in an attempt to avoid the prior art and

asserts that the “association information” is not disclosed by Shindo’s management information or Futa’s judgment tables.

For Shindo, Patent Owner asserts that Shindo does not disclose the claimed “association information.” Paper 10, 16 (“[t]here is no such association between content and device specific ID defined by trigger information 15, index information 10, and management information 19”). However, management information 19 includes a device ID field in the form of a terminal ID 20 as shown below:

The diagram shows a table representing management information 19. A bracket labeled '19' is positioned above the table. To the left of the table, labels 20 through 25 are connected to specific rows by lines. The table has two columns: the first column contains field names, and the second column contains their values.

20	Terminal ID	1
21	Owner	Taro Matsushita
22	Connection Status	ON
23	User	Taro Matsushita
24	Performance	DisplaySize=2.5 Resolution=345 x 456 encode=mpeg4.wmv.asx
25	Mode Information	Replay

Paper 1 at 18 (citing Shindo at FIG. 9 (annotation removed)). Thus, the Petition asserts that Shindo’s association information includes the very thing that Patent Owner’s infringement contentions identify as “association information.”

For Futa, Patent Owner asserts that “[t]his [Futa’s judgment tables] is fundamentally different from the claimed ‘association information,’ which must define a specific link between one specific content and one specific subsidiary terminal for the purpose of determining where to transmit that content. Futa’s tables define group permissions based on type, not specific transmission mappings.”). Paper 10, 52. However, the Petition asserts that Futa stores “association information” in the form of a judgment table that also includes a device ID. Paper 1 at 73 (citing

Futa at ¶169 (“prestores judgment tables ‘A’ and ‘B’” and “writes a device ID into the judgment tables ‘A’ and/or ‘B’, every time...a device establishes connection”)).

Thus, for purposes of PO’s infringement contentions, a “device ID” satisfies the claimed “association information,” but here, a device ID does not, even when included with additional information. PO offers no explanation for these inconsistent positions.

Petitioners respectfully submit that the Board should reject the construction that PO now proffer in the POPR to avoid unpatentability and construe “association information” as PO did in its infringement contentions; namely, that this limitation is satisfied by a “device ID.”

B. Storage of “Association Information” (Limitation [1h])

Moreover, in a further attempt to avoid an unpatentability determination here, Petitioners note that PO also reads into limitation [1h] a requirement that is not present – namely, that the “association information” must be stored in “the storage” of limitation [1c]. This improper construction should also be rejected.

III. CONCLUSION

The Director should institute this IPR for the reasons discussed above and for the reasons discussed in the Petition (Paper 1).

Date: December 4, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§ 42.6(e) and 42.105 that on December 4, 2025, a true and correct copy of this brief and any new exhibits were served by emailing a copy of the same (by agreement) to the following attorneys for PO:

Robert G. Pluta (rpluta@mayerbrown.com); and

Saqib Siddiqui (ssiddiqui@mayerbrown.com).

A courtesy copy also was sent via email to:

maxell-samsung-service@mayerbrown.com

Date: December 4, 2025

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