

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioner,

v.

KANNUU PTY LTD.,

Patent Owner.

Case No. IPR2026-00072

U.S. Patent No. 11,200,252

PATENT OWNER'S RESPONSE

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EXHIBIT LIST

No.	Short Name	Exhibit
1001	'252 Patent	U.S. Patent No. 11,200,252
1002	'252 File History	File History of U.S. Patent No. 11,200,252
1003	Madisetti Decl.	Declaration of Vijay Madisetti, Ph.D.
1004	Madisetti CV	Curriculum Vitae of Vijay Madisetti, Ph.D.
1005	<i>Perlman</i>	U.S. Pat. Pub. No. 2002/0113825 A1
1006	<i>Dostie</i>	U.S. Pat. Pub. No. 2004/0021691
1007	<i>Pu</i>	U.S. Patent No. 7,152,213
1008	<i>Lee</i>	U.S. Patent No. 6,144,378
1009	<i>Badarneh</i>	Int'l Patent Pub. No. WO2002/091160
1010	<i>Schroeder</i>	U.S. Patent No. 5,797,098
1011	<i>Strubbe</i>	U.S. Patent No. 5,223,924
1012	<i>Montgomery</i>	U.S. Patent No. 3,309,677
1013	'354 FWD	Final Written Decision, IPR2020-00737, Paper 105 (PTAB Sept. 21, 2021) (filed under seal)
1014	'393 FWD	Final Written Decision, IPR2020-00738, Paper 100 (PTAB Sept. 21, 2021) (filed under seal)
1015	'852 Final Rejection	Final Rejection, Reexamination No. 90/014,760 (July 28, 2022)
1016	'852 PTAB Decision	Decision on Appeal, Reexamination No. 90/014,760 (PTAB Sept. 19, 2023)

No.	Short Name	Exhibit
1017	'579 Final Rejection	Final Rejection, Reexamination No. 90/014,761 (July 28, 2022)
1018	'579 PTAB Decision	Decision on Appeal, Reexamination No. 90/014,761 (PTAB Sept. 19, 2023)
1019	'354/'393 IPR Appeal	Judgment, <i>Kannuu Pty Ltd. v. Samsung Elecs. Am., Inc.</i> , No. 22-1526 (Fed. Cir. Oct. 11, 2013)
1020	'264 Final Rejection	Final Rejection, Reexamination No. 90/014,759 (Sept. 2, 2022)
1021	'264 PTAB Decision	Decision on Appeal, Reexamination No. 90/014,759 (PTAB Sept. 19, 2023)
1022	'939 Patent	U.S. Patent No. 11,573,939
1023		Samsung Document Production SAMSUNG_K_00035577-00035704 (filed under seal)
1024	'939 File History	File History of U.S. Patent No. 11,573,939
1025		Samsung Document Production SAMSUNG_K_00035597 -603 -619 (Original) (filed under seal)
1026		30(b)(6) Deposition Transcript from IPR2020-00737 and IPR2020-00738 (filed under seal)
1027		Samsung's Supplemental Interrogatory Response to Kannuu's Interrogatory in IPR2020-00737 and IPR2020-00738 (filed under seal)
1028		[intentionally omitted]

No.	Short Name	Exhibit
1029		<i>[intentionally omitted]</i>
1030		<i>[intentionally omitted]</i>
1031		<i>[intentionally omitted]</i>
1032		<i>[intentionally omitted]</i>
1033		KAN-PTAB00001830, Kannuu--Revenue 2010-2018.pdf (filed under seal)
1034		KAN-PTAB00001655 (filed under seal)
1035		KAN-PTAB00001505 (filed under seal)
1036		KAN-PTAB00000236 (filed under seal)
1037		KAN-PTAB00000025 (filed under seal)
1038		KAN-PTAB00000910 (filed under seal)
1039		KAN-PTAB00000919 (filed under seal)
1040		KAN-PTAB00000099 (filed under seal)
1041		KAN-PTAB00000118 (filed under seal)

No.	Short Name	Exhibit
1042		KAN-PTAB00000168 (filed under seal)
1043		KAN-PTAB00000973 (filed under seal)
1044		KAN-PTAB00001095 (filed under seal)
1045		KAN-PTAB00001237 (filed under seal)
1046		KAN-PTAB00000386 (filed under seal)
1047		KAN-PTAB00000989 (filed under seal)
1048		KAN-PTAB00001278 (filed under seal)
1049		KAN-PTAB00001327 (filed under seal)
1050		KAN-PTAB00001323 (filed under seal)
1051		KAN-PTAB00001803 (filed under seal)
1052		KAN-PTAB00001515 (filed under seal)
1053		KAN-PTAB00001796 (filed under seal)
1054		KAN-PTAB00001056 (filed under seal)

No.	Short Name	Exhibit
1055		KAN-PTAB00001618 (filed under seal)
1056		KAN-PTAB00001661 (filed under seal)
1057		<i>[intentionally omitted]</i>
1058		SAMSUNG-KANNUU-IPRS-00002 (filed under seal)
1059		SAMSUNG-KANNUU-IPRS-00002(Translation) (filed under seal)

CLAIM LISTING

Claim 1	
1[a]	A system for selecting items associated with corresponding item identifiers from a plurality of items, the system comprising:
1[b]	a television display
1[c]	a remote control device comprising a 4-way directional controller; and
1[d]	a computer processor configured to:
1[e]	generate, on the television display, a first display of an on-screen keyboard including one or more parts of an item identifier for selection;
1[f]	enable the selection of the one or more parts by utilizing the 4-way directional controller;
1[g]	in response to the selection of the one or more parts of item identifiers, generate a display of a further one or more parts of item identifiers for selection, wherein the further one of more parts of item identifiers are arranged on the display relative to one another and corresponding to an up, down, left and right position;
1[h]	enable selection of the further one or more parts of item identifiers in order to add to the selected one or more parts to build a larger part or whole of a particular item identifier; and
1[i]	select one of the further one or more parts of item identifiers in response to an activation of a corresponding up, down, left, or right key to navigate to the one of the further one or more parts of item identifiers and activation of a central key on the 4-way directional controller to select the one of the further one or more parts of item identifiers;
1[j]	wherein the selected one or more parts of item identifiers and the further one or more parts of item identifiers are shorter than a complete word; and
1[k]	wherein navigation to the further one or more parts of item identifiers is enabled by a key press corresponding to the relative arrangement of the further one or more parts of item identifiers on the display.
Claim 2	
2	The system of claim 1, wherein the processor is located within the television.

Claim 3	
3	The system of claim 1, wherein the processor is further configured to enable navigation and selection of the one or more parts of item identifiers and the further one or more parts of item identifiers by way of the 4-way directional controller.
Claim 4	
4	The system of claim 1, wherein the further one of more parts is selected for display based at least in part on a ranking scheme, and the highest ranked of the further one or more parts of item identifiers is positioned in one of the up, down, left and right positions.
Claim 5	
5	The system of claim 4, wherein the highest ranked of the further one or more parts of item identifiers being positioned in one of the up, down, left and right positions is specifically positioned in a circular menu over the on-screen keyboard on the television display indicating the item identifiers to be selected by movements of the user in the directions left, right, up, and down using the 4-way directional controller.
Claim 6	
6	The system of claim 2, wherein the item identifiers are pre-processed in order to generate a hierarchical tree, which is stored in a computer accessible memory.
Claim 7	
7	The system of claim 4, wherein the items are stored in a database and indexed based on the item identifiers and capable of being queried.
Claim 8	
8	The system of claim 4, wherein the number of key presses of the remote control keypad to select an item is fewer than the number of key presses required to select an item according to a system that requires an end user to enter one, two, three, or four characters of the item identifier and then scroll through a list of potential items to select the item by additional key presses.
Claim 9	
9	The system of claim 1, wherein the computer processor is further configured to: iterate the selection until the particular item identifier is completed, and enable selection of the particular item identifier to select the item.

Claim 10	
10	The system of claim 1, wherein the computer processor configured to generate the initial display further includes selecting the one or more parts of item identifiers to be displayed based on at least one predetermined criterion.
Claim 11	
11	The system of claim 10, wherein the at least one predetermined criterion is selected from the following: a frequency of selection of items associated with the pluralities of portions of the item identifiers, a recency of selection of the items associated with the pluralities of portions of the item identifiers, a likelihood of selection of the items associated with the pluralities of portions of the item identifiers, or a ranking of the pluralities of portions of the item identifiers in relation to a hierarchical classification of the pluralities of portions of the item identifiers.
Claim 12	
12	The system of claim 1, wherein the computer processor configured to generate the initial display further includes displaying a plurality of parts of item identifiers.
Claim 13	
13	The system of claim 1, wherein the computer processor is further configured to enable selection of the item corresponding to the item identifier.

I. INTRODUCTION

The Board should confirm the patentability of claims 1-13 (the “Challenged Claims”) of U.S. Patent No. 11,200,252 (the “’252 patent”). Petitioner bears the burden of proving unpatentability by a preponderance of the evidence, 35 U.S.C. § 316(e), and that burden never shifts to the Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). All four grounds fail.

All four of Petitioner’s asserted prior art references in this IPR were presented to the Office during examination of the ‘252 patent.¹ Ex. 1001 (citing all four references – Perlman, Lee, Dostie, and Badarneh). Additionally, Lee (the primary reference that Petitioner asserts to invalidate each and every claim of the ‘252 patent) was specifically considered by the examiner in the determination of allowance.

¹ The references asserted in Petitioner’s Petition are U.S. Pat. Pub. No. 2002/0113825 A1 (“Perlman”); U.S. Pat. Pub. No. 2004/0021691 (“Dostie”); U.S. Pat. No. 6,144,378 (“Lee”); Int’l Pat. Pub. No. WO2002/091160 (“Badarneh”). Petitioner also lists four additional references (U.S. Pat. No. 7,152,213 (“Pu”); U.S. Pat. No. 5,797,098 (“Schroeder”); U.S. Pat. No. 5,223,924 (“Strubbe”); U.S. Pat. No. 3,309,677 (“Montgomery”)), in its petition but does not assert them in its arguments. Exs. 1007, 1010-1012.

Every ground depends on combining Lee with either Perlman (Grounds 1-2) or Badarneh (Grounds 4-5) because neither Perlman nor Badarneh discloses the claimed “remote control device comprising a 4-way directional controller” with a “central key,” used to navigate to a displayed part of an item identifier with “an activation of a corresponding up, down, left, or right key” and to select it by “activation of a central key.” Perlman is a seven-plus button, character-mapped entry system whose stated purpose is one press per character. Badarneh is a rotary-switch handheld device. Lee is a static, designer-arranged on-screen keyboard that never generates further parts of item identifiers in response to a selection; said further parts are only displayed in response to navigating the on-screen keyboard.

The Petition's two proposed combinations (Perlman-Lee and Badarneh-Lee) each destroy what makes the borrowed reference work. Grafting navigate-and-select onto Perlman abandons Perlman's single-press principle and re-introduces the cursor-based selection Perlman disparages; in the same vein, Badarneh's rotary switch is nullified by Lee's navigate-and-select in four directions. Grafting Perlman and Badarneh's dynamic, prediction-driven display onto Lee destroys Lee's stated advantage that users learn fixed symbol positions. Neither combination is supported by an articulated, evidence-based motivation, and neither, even if made, yields the claimed invention.

Where these fail, Petitioner introduces Dostie in combination with said references to assert obviousness over claims 6 and 11. Dostie is directed to providing hierarchical dictionary trees to locate sets of completion candidates – said candidates being single letters. In every instance that Dostie is asserted, Dostie is used in combination with Lee. Lee would not be able to incorporate usage of this hierarchical structure in its keyboard without the keyboard becoming completely unusable. A user would not be able to navigate the radial wheel of the keyboard, nor learn the layout of said radial wheel with repeated usage, if the radial wheel continuously updated with deterministic letters. Lee, therefore, teaches away from using a hierarchical database for letter completion as contemplated by Dostie.

The objective indicia independently confirm non-obviousness. The Board previously discounted this evidence because Patent Owner had not linked it to unique characteristics of the *then-challenged* claims or shown that Samsung's products embodied those claims. The '252 claims now expressly recite the 4-way directional controller with a central key, which is the feature Samsung's own internal documents praised, adopted, and described in December 2013 as "a text input method using D-Pad of the remote controller, similar to Kannuu's." The nexus defect the Board identified has been cured by the claim language itself.

II. BACKGROUND

A. The '252 Patent and the Challenged Claims

The '252 patent claims a system for selecting items on a television using a remote control comprising a 4-way directional controller with a central key. An on-screen keyboard presents parts of item identifiers; in response to a selection, further parts are generated and “arranged on the display relative to one another and corresponding to an up, down, left and right position”; the user navigates to a further part with “an activation of a corresponding up, down, left, or right key” and selects it by “activation of a central key on the 4-way directional controller”; and “navigation ... is enabled by a key press corresponding to the relative arrangement of the further one or more parts of item identifiers on the display.” EX1001, claim 1.

These claims were drafted after, and in direct response to, the Board's decisions in IPR2020-00737 and -00738. There, the Board declined to read “up, down, left, right” positional language as limiting the input device to four directional options. Patent Owner responded by expressly including said limitation in their claims: “a remote control device comprising a 4-way directional controller,” with selection completed by “activation of a central key on the 4-way directional controller,” and with a wherein clause tying each navigational key press

to the on-screen arrangement. The comparison below illustrates the changes relative to claim 12 of the now-invalidated '579 patent.

'252 Patent, Claim 1	'579 Patent, Claim 12
1. A system for selecting items associated with corresponding item identifiers from a plurality of items, the system comprising: <u>a television display;</u> <u>a remote control device comprising a 4-way directional controller;</u> and a computer processor configured to:	12. An apparatus for selecting items, the apparatus comprising: an output display; an input; and a computer processor configured to execute a method comprising: associating the items with a corresponding item identifiers;

generate, on the television display, a first display of an on-screen keyboard including one or more parts of an item identifier for selection; enable the selection of the one or more parts by utilizing the 4-way directional controller; in response to the selection of the one or more parts of item identifiers, generate a display of a further one or more parts of item identifiers for selection, wherein the further one of more parts of item identifiers are arranged on the display relative to one another and corresponding to an up, down, left and right position;	generating a first display on the output display, the first display comprises: a part of an item identifier corresponding to a first set of items and a part of an item identifier corresponding to a second set of items in a database; enabling selection of one of the two parts of the item identifiers by a user using the input; generating, in response to the selection of the one of the two parts of item identifiers, a further display on the
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enable selection of the further one or more parts of item identifiers in order to add to the selected one or more parts to build a larger part or whole of a particular item identifier; and; <u>select one of the further one or more parts of item identifiers in response to an activation of a corresponding up, down, left, or right key to navigate to the one of the further one or more parts of item identifiers and activation of a central key on the 4-way directional controller to select the one of the further one or more parts of item identifiers;</u>	output display, the further display comprises: an additional part of an item identifier corresponding to a subset of the selected set of items and another additional part of an item identifier corresponding to another subset of the selected set of items; enabling selection of one of the two additional parts of the item identifiers by the user using the input; combining the selected one of the two parts of the item identifiers with the selected one of the two additional parts of the item identifiers to create a larger part of the item identifiers;
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wherein the selected one or more parts of item identifiers and the further one or more parts of item identifiers are shorter than a complete word; and	and displaying the larger part of the item identifiers on the output display; wherein
wherein navigation to the further one or more parts of item identifiers is enabled by a key press corresponding to the relative arrangement of the further one or more parts of item identifiers on the display.	the additional parts of the item identifiers are shorter than complete item identifiers; and the first set of items and the second set of items are mutually exclusive of one another.

B. Prosecution History

The complete records of the prior IPRs and Petitioner's reexamination requests, including Perlman, Dostie, Lee, and Badarneh and Petitioner's arguments concerning them, were before the Office during examination. EX1002, 2, 69. The Examiner applied Lee (with Mansfield) to reject only claims 40-49, which the applicant cancelled to expedite prosecution, and allowed claims 27-39 — now the

Challenged Claims — repeatedly, including after the Final Written Decisions

issued and were made of record. EX1002, 15-16, 153-54, 202-03, 384-85, 465-72.

Patent Owner offers this history as intrinsic evidence informing claim construction and as context for the burden Petitioner must carry.

III. LEGAL STANDARDS

Petitioner bears the burden of proving unpatentability by a preponderance of the evidence, and that burden never shifts to the Patent Owner. 35 U.S.C. § 316(e); *Dynamic Drinkware*, 800 F.3d at 1375, 1378. Obviousness requires consideration of all four *Graham* factors, including objective indicia. *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1048 (Fed. Cir. 2016) (en banc).

IV. CLAIM CONSTRUCTION: “A REMOTE CONTROL DEVICE COMPRISING A 4-WAY DIRECTIONAL CONTROLLER” WITH A “CENTRAL KEY”

The plain meaning of “a 4-way directional controller” having “a central key” is a directional controller providing four directional inputs — up, down, left, and right — together with a central selection key. The claims then use the device exactly that way: navigation occurs by “an activation of a corresponding up, down, left, or right key,” selection by “activation of a central key on the 4-way directional controller,” and the final wherein clause requires that navigation be “enabled by a key press corresponding to the relative arrangement” of the displayed parts.

EX1001, claim 1. A structural term naming the number of directional inputs,

embedded in operational limitations that use each of the four directions and the central key, cannot be read to cover controllers with more (or different) directional inputs without erasing “4-way” from the claim.

A. The Petition Conflates the Number of Displayed Options with the Structure of the Controller

The Petition's contrary argument rests on specification passages about the *interface*, not the controller. It quotes the disclosure that “[o]ther interface variations may require other numbers of options from one upwards,” EX1001, 20:19-28, and the “5-way joystick” example, EX1001, 19:38-42, to argue that a “4-way directional controller” “does not necessarily have only 4 directional options.” Pet. 9. Both passages describe how many *menu options* may be presented on screen; neither redefines the structure of the input device the claim recites.

The 5-way joystick passage affirmatively supports Patent Owner: read in full, it describes a joystick in which at most four directions present options (in the example, “only 3 of the directions are used to present options (e.g. left, up and right)” with “the remaining direction indicating ‘back’”), “and a press in of the joystick indicating ‘more.’” EX1001, 19:38-42. The specification elsewhere equates the claimed four options with “joystick movements in the directions up, right, down and left.” EX1001, 23:41-45. In other words, in the examples cited, the specification never reads in more than options selectable with a directional input from the joystick.

B. The Prior Constructions Addressed Different Claim Language

The Petition invokes the Board's constructions in IPR2020-00737 and - 00738 and the September 16, 2025 Stewart Memorandum's consistency expectation. Pet. 8-9. But consistency obligations attach to *the same or materially similar claim language*, and the Board there construed positional phrases ("parts of item identifiers being positioned in one of the up, down, left and right positions" ('354) and portions "displayed in a position corresponding to an up, down, left, right, select functionality of an input directional controller" ('393)) holding that language about where parts are *displayed* does not limit the number of directional options on the *device*. EX1013, 23-33; EX1014, 25-29. The '252 claims answer that holding directly. They claim the device ("a remote control device comprising a 4-way directional controller"), the central key, the single "activation of a corresponding" directional key for navigation, and the correspondence between key press and on-screen arrangement. Construing this different, narrower language according to its plain meaning is not a departure from the prior decisions of the Board. It is instead the application of them, since the prior decisions rested precisely on the absence from those claims of the structural language now present. Should the Board require it, the Board may adopt this reasoning as the "detailed explanation" any consistency policy could require.

C. No Disclaimer Is Needed, and Petitioner's Disclaimer Argument Attacks a Position Patent Owner Does Not Take

The Petition argues at length that remarks made during prosecution of the '939 patent cannot narrow the '252 claims as a “clear and unmistakable disclaimer.” Pet. 9-11 (citing *Thorner*; *Abbott*). The argument answers a position Patent Owner does not advance. Disclaimer is a doctrine for narrowing claims beyond their plain meaning. Patent Owner's construction is merely the plain meaning, supported by the claim language and specification as shown above. No resort to the '939 prosecution is necessary. To the extent that history is relevant at all, it is only as confirmation that the patentee consistently used “four way ... directional controller” language, across the family, to denote a device with no more than four directional selection inputs.

V. GROUND 1 FAILS: PERLMAN AND LEE DO NOT RENDER OBVIOUS CLAIMS 1-13

A. Perlman Alone Lacks the Claimed Controller, and the Petition's “Design Choice” Theory Is Conclusory

The Petition concedes that Perlman's remote presents “buttons in a star pattern” — at least seven character-mapped buttons plus a separate select button — and argues that a POSITA “would likewise consider it an obvious design choice” to use “at most four directional buttons” because Perlman states it is “not limited to any particular number of buttons or any particular button arrangement.” Pet. 18-19 (quoting EX1005, ¶[0016]). Boilerplate breadth statements of that kind, untethered

to any disclosed alternative, do not disclose or suggest the claimed structure. *See D Three Enters., LLC v. SunModo Corp.*, 890 F.3d 1042, 1051 (Fed. Cir. 2018); *IP Innovation, L.L.C. v. eCollege.com*, 156 F. App'x 317, 321 (Fed. Cir. 2005). More fundamentally, reducing Perlman to four character buttons would defeat Perlman's own design. Perlman presents many simultaneous character choices to minimize a user's need to resort to the "more" function. Fewer buttons means more "more" presses and more looking away from the screen, teaching away from the problems Perlman wishes to solve. EX1005, ¶¶[0004], [0014].

B. Neither of the Petition's Two Proposed Combinations of Perlman and Lee Is Supported by a Sufficient Motivation, and Neither Yields the Claimed Invention

The Petition proposes two express combinations of Perlman and Lee to prove obviousness: "(1) using Perlman's interface to, in view of Lee, allow a user to navigate to a letter and select it with an action button, or (2) replace Perlman's interface for entering characters with Lee's." Pet. 14. Each fails.

1. Combination 1 abandons Perlman's operating principle and still does not meet limitation 1[i] or 1[k]

Perlman's principle of operation is single-press character entry — the user "rapidly enter[s] alphanumeric characters ... without looking away from the television/computer screen" because each character-mapped button enters its character in one press. EX1005, ¶[0014]. Combination 1 replaces one press with at least two (navigate, then select) for every character, multiplying keystrokes and re-

introducing the cursor-style selection Perlman describes as the deficient prior art.

EX1005, ¶[0004]. A modification that abandons the reference's basic principle, or that the reference itself criticizes, cannot support obviousness.

Combination 1 also fails on application to the claim language. Perlman's star arrangement places character options in diagonal as well as cardinal positions.

EX1005, Figs. 1a-1b, 2. The '252 claim 1 requires selecting a further part "in response to *an* activation of a *corresponding* up, down, left, or right key to navigate to" that part, with navigation "enabled by a key press corresponding to the relative arrangement" of the parts on the display. EX1001, claim 1 (limitation 1[i]; 1[k]). A four-key controller has no key "corresponding" to a diagonal position; reaching Perlman's diagonal options would require either additional keys (defeating the 4-way controller limitation) or multiple non-corresponding presses (defeating the correspondence and single-activation requirements).

2. Combination 2 destroys Lee's stated advantage and still does not meet limitations 1[g] or 1[k]

Lee discloses a static on-screen keyboard. Symbols are laid out once, by the designer, in a fixed radial arrangement so that the user is able to "learn the positions of different symbols and to thus shorten the effort required to enter any particular character." EX1008, 1:63-5. Lee's keyboard never changes in response to a selection; the user's selections move a *focus* around a fixed layout. That is fatal to limitation 1[g], which requires the processor, "in response to the selection

of the one or more parts of item identifiers,” to “generate a display of a further one or more parts of item identifiers for selection.” Lee generates nothing in response to a selection; the further “options” are simply whatever fixed symbols happen to adjoin the focus.

The Petition patches the hole by importing Perlman's prediction: “those letters could also make use of Perlman's disclosure of prioritizing letters of more frequently viewed titles.” Pet. 30. But a Lee keyboard whose symbols dynamically re-arrange according to database predictions is no longer learnable. The same symbol would appear in different positions depending on the letters already entered and depending on the contents of the database, eliminating the learnable fixed positions on which Lee's entire efficiency rationale depends. The proposed combination thus destroys the very benefit the Petition invokes Lee to provide, which is the hallmark of an impermissible hindsight combination with no reasonable expectation of success.

The Petition's worked example (Figures 7-9, where four symbols (“S,” “A,” “G,” “M”) adjoin the focus and “[p]ressing up key 44 positions a focus on the ‘A’ symbol,” Pet. 29-30) depends on selecting a focus state in which exactly four options happen to sit in cardinal positions. Lee's layout is not so obliging elsewhere: at other focus positions the adjoining symbols number three or five and occupy non-cardinal placements, which a “corresponding up, down, left, or right

key” press cannot reach consistent with the wherein clause in 1[k], as sometimes fewer or greater than four options present themselves upon a shift of Lee’s focus. As can be seen from the below figures, highlighting various keys on Lee’s keyboard presents the user with a multitude of different “further parts” of item identifiers, ranging from three, four, or five “further parts”, some of which (such as the “2” in Fig. 11) are unable to be reached with a four-way directional controller, which is inconsistent with the ‘252 wherein clause in 1[k].

U.S. Patent

Nov. 7, 2000

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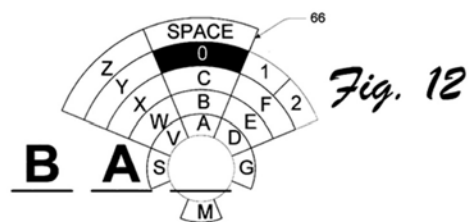
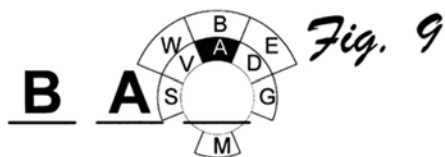
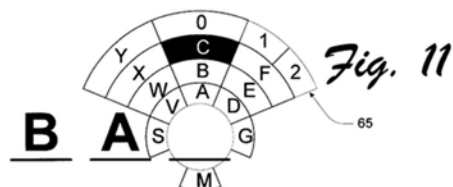
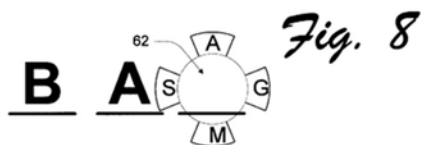
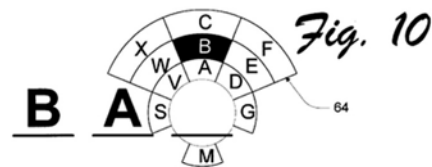
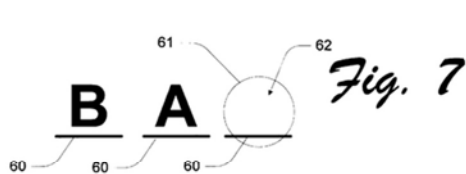
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C. The Dependent Claims Stand With Claim 1

Claims 2-13 depend from claim 1 and are patentable at least for the reasons above. In addition, claim 5 requires the highest-ranked further part to be “specifically positioned in a circular menu over the on-screen keyboard,” selected “by movements of the user in the directions left, right, up, and down using the 4-way directional controller”, which is an overlay architecture disclosed by neither reference and unaddressed by the Petition’s combination beyond conclusory assertion. Pet. 35-36.

VI. GROUND 2 FAILS: PERLMAN, LEE, AND DOSTIE DO NOT RENDER OBVIOUS CLAIMS 6 AND 11

Ground 2 adds Dostie’s hierarchical dictionary trees to reach claims 6 and 11. Because claims 6 and 11 depend from claim 1, Ground 2 fails with Ground 1. It fails independently because the Petition supplies no reason to combine Lee with Dostie at all: Lee’s value proposition is a fixed, learnable layout, while Dostie’s is dynamic tree-driven candidate generation. This discord is the same incompatibility described in § V.B.2, compounded. The Petition’s Ground 2 discussion mentions Lee once and articulates no Lee-Dostie motivation, leaving the Board nothing to adopt.

**VII. GROUND 4 FAILS: BADARNEH AND LEE DO NOT RENDER
OBVIOUS CLAIMS 1-5 AND 7-13**

**A. Badarneh Supplies Neither a Television Display Nor the Claimed
Controller**

Claim 1 requires “a television display” and “a remote control device comprising a 4-way directional controller.” Badarneh discloses handheld, screen-integrated devices operated by “a rotatable, multifunctional switch” on the device. EX1009, 1:27-30; 16:23-30. The word “television” appears nowhere in the Petition's Badarneh citations, and the “remote control units” passage the Petition invokes, EX1009, 4:6-11, describes units that carry their own “larger display screens” — not remotes controlling a television. The rotary switch, in turn, is not a 4-way directional controller: rotation is its primary input mode, and its pressure points do double duty as direct-entry keys rather than serving as four navigation keys plus a central select key. Badarneh discloses a four-directional alternative mode only to subordinate it to the preferred rotary operation.

**B. The Petition's Stated Motivation Is Not Solved by Lee, and the
Combination Is Incoherent**

The Petition's reason to combine is that rotating Badarneh's switch may cause a user to have to rotate through many different inputs in order to reach the right character, which Lee purportedly solves because “Lee does not require entering numerous inputs to navigate a marker over a full-size on-screen keyboard.” Pet. 53. Lee solves no such problem: traversing Lee's fixed radial

keyboard between non-adjacent symbols itself requires numerous directional presses.

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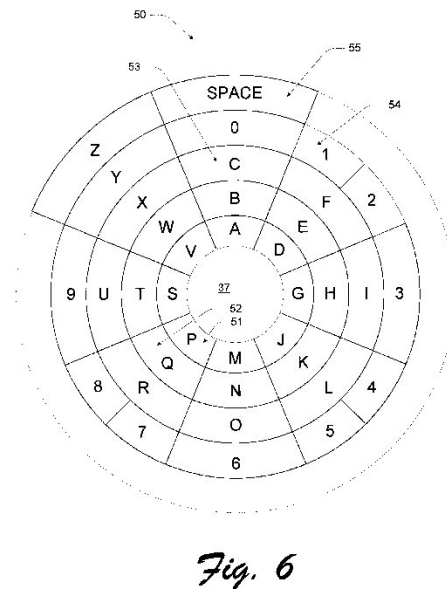
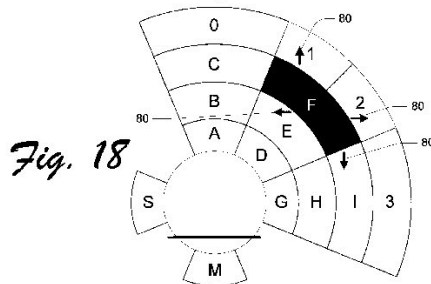
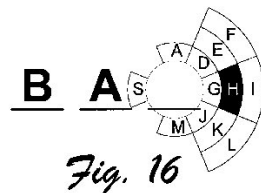
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As an example, using the above fully-revealed keyboard of Lee (Fig. 6), if a user wished to navigate from “I” to “R” (e.g., a user attempting to enter “Air”), the shortest path they could navigate to, using only the up, down, left, right configuration of Lee, is 5 key presses (“H”, “K”, “N”, “Q”, “R”). This is still a “numerous” amount of inputs required to reach the desired character on the keyboard and does not solve the problem that Petitioner states would motivate a

POSITA to combine Badarneh with Lee. Substituting one many-input scheme for another is not a motivation; it is a post-hoc rationalization.

The combination is also internally incoherent in the same two ways as Ground 1. Using Badarneh's system with Lee's interface either (a) dedicates the directional inputs to traversing Lee's static rings — abandoning Badarneh's predictive-entry operation — or (b) imports Badarneh's dynamic prediction into Lee's layout, destroying Lee's learnable fixed positions, as in § V.B.2.

The two references' entry paradigms are opposed at the root: Lee always maintains a highlighted symbol ready for central-key entry, while Badarneh's cursor sits between characters with adjacent options entered directly by directional press. Each reference teaches away from the other's core mechanic; a POSITA would not combine them absent hindsight, and no reasonable expectation of success attends a combination whose halves cancel each other.

C. Even Combined, the References Do Not Meet Limitations 1[g] and 1[i]

For the reasons given in § V.B, the combination does not “generate, in response to the selection ..., a display of a further one or more parts” (1[g]; Lee's displays are static and not in response to the selection), and does not enable selection by “an activation of a corresponding up, down, left, or right key” with navigation “corresponding to the relative arrangement” of the displayed parts (1[i] and 1[k]; non-cardinal and variable-count placements). Badarneh adds a further

mismatch: its predictive display presents candidates in fewer than four of the cardinal positions, with at least one position reserved for a fixed function (e.g., space) rather than a part of an item identifier, as seen in the below figures. A system that does not populate all four cardinal positions with selectable parts of item identifiers does not meet the claim's arrangement and correspondence requirements as the Petition maps them.

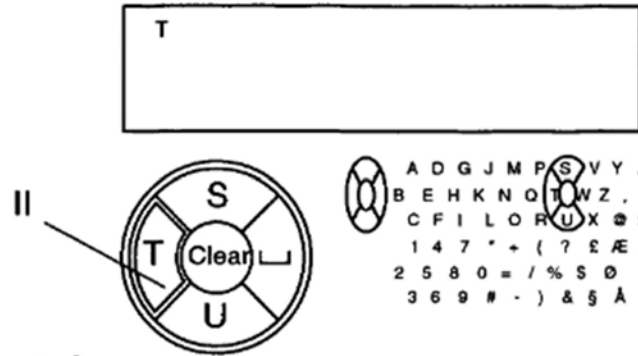


Fig. 9d

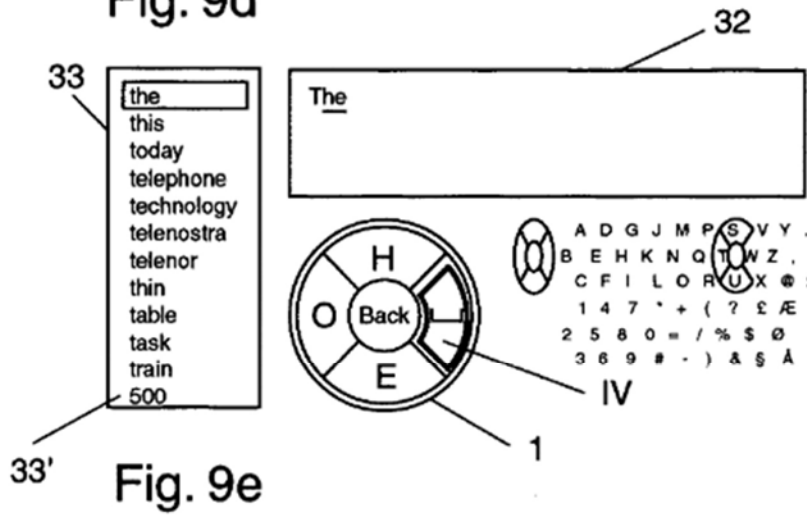


Fig. 9e

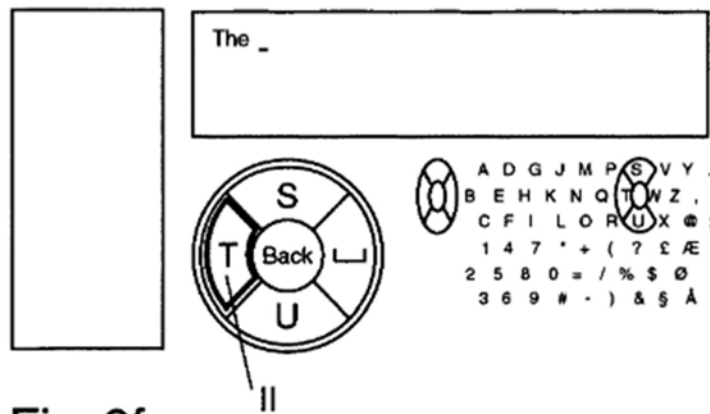


Fig. 9f

D. The Dependent Claims Stand With Claim 1

Claims 2-5 and 7-13 depend from claim 1 and are patentable at least for the reasons above.

VIII. GROUND 5 FAILS: BADARNEH, LEE, AND DOSTIE DO NOT RENDER OBVIOUS CLAIMS 6 AND 11

Ground 5 mirrors Ground 2 with Badarneh substituted for Perlman. It fails with Ground 4, and independently for the reasons in § VI: the Petition articulates no motivation to combine Lee with Dostie, and Dostie's dynamic tree-driven candidate generation is incompatible with Lee's fixed, learnable layout.

IX. OBJECTIVE INDICIA CONFIRM THE NON-OBVIOUSNESS OF THE CHALLENGED CLAIMS

A. The Prior Findings Do Not Control Because the Claimed Invention Has Changed

Objective indicia “must be considered in every case where present.” *Apple*, 839 F.3d at 1034, 1048. The Petition asks the Board to re-adopt its findings from IPR2020-00737 and -00738, which gave the objective evidence “little weight” for want of nexus. Pet. 78-83. The Board's stated reasons were claim-specific: Patent Owner had “fail[ed] to sufficiently link the praise and industry recognition to any unique characteristics of the invention” of the then-challenged claims, had “not shown that Petitioner's product ... embodies, or is similar to, the product” of those claims, and had not tied commercial success to “the specific features of the claims at issue.” Pet. 81-82 (quoting EX1013, 92-94).

Nexus is measured against the claims. *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373-74 (Fed. Cir. 2019). The '252 claims are not the claims the Board previously evaluated. They now expressly recite the 4-way directional controller with a central key, single-activation directional navigation, and key-press-to-arrangement correspondence — the “front end” that the objective evidence concerned. The linkage the Board found missing in 2021 is now supplied by the claim language itself. Patent Owner relies on *actual* nexus to these recited features, not a presumption.

B. The Evidence of Record

The relevant evidence is of record in this proceeding, filed by Petitioner itself as EX1023, EX1025-EX1027, and EX1033-EX1056 (under seal). Patent Owner cites Petitioner's exhibits and will move to seal any paper quoting sealed material.

1. Petitioner's own praise — directed to the now-claimed feature

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

2. Copying and admitted similarity

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3. Industry recognition and commercial significance

[REDACTED]

[REDACTED]

[REDACTED]

C. Weight

Contemporaneous internal praise, adoption, and an express admission of similarity by the market-leading television maker — all directed to the feature the '252 claims now expressly recite — are precisely the objective evidence the Federal Circuit has held probative of non-obviousness. Together with the failures of the Petition's grounds, this evidence confirms that Petitioner has not carried its burden.

X. CONCLUSION

For the foregoing reasons, Petitioner has failed to prove by a preponderance of the evidence that any Challenged Claim is unpatentable. The Board should confirm the patentability of claims 1-13 of the '252 patent.

Dated: July 22, 2026

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Under the provisions of 37 C.F.R. § 42.24, the undersigned hereby certifies that the word count for the foregoing **PATENT OWNER'S RESPONSE** (excluding the table of contents, table of authorities, mandatory notices, certificate of service or word count, and appendix of exhibits or claim listing) totals 4,710 words, which is less than the 14,000 words allowed under 37 C.F.R. § 42.24(b)(2).

By: /s/ Lewis E. Hudnell, III
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Reg. No. 51,185

CERTIFICATE OF SERVICE

I certify that the foregoing **PATENT OWNER'S RESPONSE** was served on July 22, 2026, on the Petitioner by filing this document through the Patent Trial and Appeal Board P-TACTS System as well as e-mailing a copy to qc-samsung-kannuu@quinnemanuel.com.

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