

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner,

v.

THL HOLDING COMPANY, LLC,
Patent Owner.

U.S. Patent No. 11,265,680 to Howard, et al.

Case No.: IPR2024-00398

PATENT OWNER'S SURREPLY TO PETITION

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I. INTRODUCTION

Patent Owner (“THL”) submits the following Surreply to the Petition (“Pet.,” Paper 1) for Inter Partes Review of claims 1-9 (“Challenged Claims”) of U.S. Patent No. 11,265,680 (“the ’680 Patent”) filed by Apple Inc., (“Apple” or “Petitioner”), and the Board’s Institution Decision (“ID,” Paper 6.)

Apple’s Reply (“Reply,” Paper 16) alleges the “Board made two errors in its Institution Decision[.]” (“Reply,” 1.) Per Apple, the Board’s two alleged errors are:

- First, the Board failed to consider whether the **combination** of Kalliola-Vauclair taught “the pairing signal generated by the graphical user interface” requirement of limitation 1(d)(v) as mapped in the Petition. Paper 1 (*Petition*), 33-36; Ex. 1003 (*Buehrer Dec.*), ¶¶ 168-176. Instead, the Board considered whether Vauclair alone taught limitation 1(d)(v) without considering the entirety of Claim 1’s mapping.
- Second, the Board overlooked that Vauclair’s “user input 28” is an input element, not an action of a user. *See* Paper 6, 47 (“It is the *action* of user input that selects and sends a signal”) (emphasis added).

(*Id.* (emphasis in original).)

For the reasons explained below, Apple’s two alleged errors lack merit, so the Board should confirm the patentability of claims 1-9 of the ’680 Patent.

II. ARGUMENT

A. The Board did not err in failing to consider whether the combination of Kalliola-Vauclair taught limitation 1(d)(v) because, contrary to Apple’s Reply assertion, Apple’s Petition did *not* present nor support that theory

1. Apple’s Petition relied on Vauclair alone for limitation 1(d)(v)

Apple alleges that the Board’s first error was “fail[ing] to consider whether the **combination** of Kalliola-Vauclair taught ... limitation 1(d)(v) as mapped in the Petition[.]” (Reply, 1 (citing Pet., 33-36; Ex. 1003, ¶¶168-176) (emphasis in original).) Apple’s alleged error is baseless because the Petition does not assert the “**combination**” teaches that limitation.

Apple suggests the Board erred because it “considered whether Vauclair alone taught limitation 1(d)(v)” (Reply, 1.) That is exactly what Apple argued. In its Petition, Apple repeatedly stated (albeit incorrectly) that *Vauclair* alone disclosed claim limitation 1(d)(v):

Vauclair further teaches generat[ing] a pairing signal, where the pairing signal [is] generated by the graphical user interface (as recited in Claim 1(d)(v)).

First, Vauclair teaches the user's selection of the pairing option from the menu, thus teaching a first indication...to pair. *Vauclair*, [0036]; *Dec.*, ¶168.

Second, Vauclair teaches that the selection of a menu option sends a signal to control circuitry: "user input 28...allow[s] the user **to select from available menu options, to send a signal to the control circuitry.**" *Vauclair*, [0030]. Vauclair thus teaches generate a...signal (i.e., the signal sent to the control circuitry responsive to the user selection of a menu option), where the signal [is] generated by the graphical user interface (i.e., the signal is generated at the GUI because the signal is responsive to user selection of the pairing option). *Dec.*, ¶168.

* * *

Thus, reading Vauclair's teachings collectively, Vauclair teaches (1) a pairing option is presented on a menu [0036]; (2) user selects pairing option [0036]; and (3) in response to the user selection of a menu option (i.e., the pairing option), a signal is generated by the graphical user interface and sent to the control circuitry to perform the pairing process sequence [0030], [0037]-[0049]. *Dec.*, ¶170. Because a signal is sent to control circuitry to initiate the pairing process, and further because the signal is sent in response to the user selection (a first indication from a user) of the menu option (where the menu option is to pair the mobile communication device to at least one remote device), the signal sent to the control circuitry is the pairing signal generated by the graphical user interface.

* * *

Vauclair teaches the host device's transceiver 24 responds to the pairing signal generated by the graphical user interface by communicating RF signals to pair the host device to the peripheral device. Dec., ¶¶177-182.

(Pet., 33-34, 37 (emphasis in original).)

Apple proposed combining Kalliola with Vauclair's (non-existent) graphical user interface, generating the claimed pairing signal:

Additionally, it would have been obvious to a POSITA to configure Kalliola's WCD to generate a processor signal in response to the user selecting a pairing option from the menu, per Vauclair. *Id.*, ¶173. A POSITA would have found it obvious that the GUI presented on Kalliola WCD's touchscreen, *like Vauclair's user interface*, would have generated signals corresponding to the user's inputs at least to carry out designated functions of the WCD, such as the initiation of a pairing process. *Id.*

* * *

Thus, a POSITA would have been motivated to combine the prior art elements of Kalliola's WCD communicating with a signal emitter via Bluetooth with *Vauclair's pairing menu and processor signals* to yield the predictable result of a pairing signal in response to a first indication from a user to pair the WCD to the signal emitter. *Id.*, ¶175.

(Pet., 35, 36 (emphasis added).)

The only “modification” of Kalliola proposed in the Petition was routing Vauclair’s (non-existent) graphical user interface signals to the “WCD’s processor” disclosed in Kalliola:

Moreover, a POSITA would have found it obvious that in the modified Kalliola WCD, the signals generated by the GUI from interaction at the touchscreen would be sent to the WCD’s processor so that the processor can interpret the user’s inputs and take the appropriate action, as otherwise taught by Vauclair. *Id.* Here, it would have been obvious to a POSITA to configure the WCD’s processor to initiate the wireless device pairing sequence upon receipt of the signal generated from the user’s pairing selection, as taught by Vauclair, to carry out the pairing process initiated by the user. *Id.*

(Pet., 35.) Confirming that no other modifications of Kalliola were necessary, the Petition stated, “there would be no change to the respective functions of either Kalliola’s WCD or Vauclair’s pairing menu.” (Pet., 36.)

2. The Board was correct when it preliminarily found that Apple’s proofs were deficient

In its ID, the Board correctly found that Vauclair’s user input 28 generates the pairing signal. (ID, 46-47.) As a result, the Board preliminarily found Apple’s expert testimony that Vauclair disclosed limitation 1(d)(v) was “conclusory” and therefore deficient. (ID, 47.)

Confirming that the Board’s findings on Vauclair were correct, Apple does not dispute them. Apple has abandoned its Petition argument, made with emphasis as shown above, that Vauclair alone disclosed the claimed “pairing signal” that is “generated by the graphical user interface.” Apple now admits that Vauclair’s user input 28 is merely a keypad or scroll button that generates a pairing signal—*not* the claimed graphical user interface for performing that function:

Vauclair’s input-element form is user input 28 that is a keypad or scroll button that generates a pairing signal upon selection of a pairing menu item. *Vauclair*, (Ex. 1005), [0030], [0036]. *See also* Paper 6, 47 (Board agreeing); Paper 12, 16 (THL agreeing); Ex. 2002, ¶ 52 (THL’s expert, Dr. Feuerstein, agreeing).

(Reply, 1-2.) Thus, *it is now undisputed that neither Kalliola nor Vauclair discloses a graphical user interface for generating the claimed pairing signal* as recited in claim 1.

Because the Board’s key ID finding is now undisputed, its preliminary determination is clearly correct. Apple has failed to prove its case, and the Board should confirm the patentability of claims 1-9.

3. Apple’s Reply improperly introduces a new and unsupported obviousness theory

With its Petition theory now admittedly deficient, Apple improperly introduces a new obviousness theory in its Reply. Faced with the admitted reality

that neither reference teaches a pairing signal generated by a GUI, as required by limitation 1(d)(v), Apple now asserts a theory that “applies Vauclair’s teaching of a [non-GUI] user input generating a signal to Kalliola’s user input that is the GUI, such that [Kalliola’s] GUI generates the signal.” (Reply, 3.)

Apple’s Reply theory is necessarily new because it depends on a factual platform that Apple’s Petition did not address, *i.e.*, the fact that neither prior art reference teaches a pairing signal generated by a GUI as claimed. Apple cites its expert declaration for the proposition that “[i]mplementing Vauclair’s teaching of pairing signal generation to Kalliola’s touchscreen-based GUI would also have been obvious to a POSITA[.]” and “[a] POSITA would have been motivated to retain the existing touchscreen-based GUI user input and would therefore have applied Vauclair’s teachings to the existing touchscreen-based GUI of Kalliola’s WCD.” (Reply, 9 (citing Pet., 34-36; Ex. 1003, ¶¶68, 154, 171-176).) But, ***none of the cited passages in Apple’s expert declaration address Apple’s new obviousness theory.***

Consistent with Apple’s Petition, Apple’s expert misinterpreted the teachings of Vauclair. Apple cites several paragraphs from its expert declaration in Reply, but none acknowledge nor address the fact that Vauclair fails to disclose limitation (1)(d)(v). Paragraphs 66-68 address the development of touch screens and graphical user interfaces generally and make no mention of Vauclair or Kalliola. Paragraphs 71-75 address Bluetooth generally and make no reference to Vauclair or Kalliola.

Paragraph 154 addresses the fact that Kalliola and other references disclose a touch screen. Paragraphs 171-176 address the alleged “motivation to combine” Kalliola and Vaclair as proposed in the Petition, *i.e.*, based on the ***incorrect assumption*** that ***Vaclair alone*** disclosed a graphical user interface for generating a pairing signal as claimed:

As discussed above, ***Vaclair teaches*** (1) presenting a pairing option on a menu displayed on a graphical user interface (*Vaclair* at [0036]); (2) the user selecting a pairing option from the menu via user input 28 (*Id.*); and (3) ***in response to the user selection of a menu option on the graphical user interface, generating a signal*** that is sent to the control circuitry to perform the pairing process sequence (*Id.* at[0030], [0037]-[0049]).

(Ex. 1003, ¶173 (bold emphasis added).)

Again, the Petition plainly relied on ***Vaclair alone*** teaching the disputed limitation:

Vaclair further teaches *generat[ing] a pairing signal*, where the *pairing signal [is] generated by the graphical user interface* (as recited in Claim 1(d)(v)).

(Pet., 33 (emphasis in original).) Apple’s expert did not address Apple’s Reply concession that Vaclair does not disclose a graphical user interface for generating

a pairing signal as claimed and instead discloses only a “keypad or scroll button.” (Reply, 1, 4, 10, 11, 15.)

Apple’s expert also never addressed the physical incompatibility of its new theory. Forced to admit that Vauclair does not teach a graphical user interface generating a pairing signal as claimed, Apple must confront the physical incompatibility of Vauclair’s user input 28 (“a keypad or scroll button”) and Kalliola’s GUI (a “touchscreen”). Apple admits that “Kalliola and Vauclair teach that user input is provided in two different input-element forms[.]” (Reply, 1.) Yet, Apple did not address this problem in its Petition nor its declaration in support. Apple’s Petition makes no reference to Vauclair’s “keypad or scroll buttons” and did not address those forms of user input.

It is improper for Apple to advance a new obviousness ground in its Reply. *See* 37 C.F.R. § 42.23(b) (“A reply may only respond to arguments raised in the corresponding opposition, ... [or] patent owner response[.]”); *Intelligent Bio-Systems Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1366 (Fed. Cir. 2016) (affirming Board’s refusal to address petitioner’s proposed modification of the prior art raised for the first time in its Reply). Moreover, Apple lacks factual support for its new obviousness theory because Apple’s expert never addressed: (1) Apple’s concession in its Reply that Vauclair does not disclose a graphical user interface for

generating a pairing signal as claimed, nor (2) the physical incompatibility of the forms of user input in Kalliola (touchscreen) and Vauclair (keypad or scroll buttons).

Apple’s new and unproven theory is also inconsistent with the evidence. Like Vauclair, Kalliola discloses “user input 360” in the form of “keypads.” (Ex. 1004, [0051].) Therefore, a POSITA combining Kalliola with Vauclair’s “user input 28” for pairing a Bluetooth device would *not* have had a reason to modify Kalliola’s “touch screen” disclosure as Apple now alleges. A POSITA combining the teachings of Vauclair with Kalliola would have used Kalliola’s “keypads” for the pairing procedure as taught by *both* Kalliola and Vauclair. (Ex. 1041, 28:5-20.) Beyond being an improper new theory, there is no factual basis for the Kalliola modification that Apple now alleges.

4. The Board did not consider Vauclair “in isolation”—the Board considered the argument Apple presented *in its Petition*

Apple devotes several pages of its Reply to its argument that the Board (and THL and its expert) improperly considered the teachings of Vauclair in isolation. (Reply, 12-15.) But in its ID, the Board considered Apple’s proposed combination of Vauclair with Kalliola:

Petitioner further argues that it would have been obvious to a person of ordinary skill in the art to “configure Kalliola’s Bluetooth transceiver with Vauclair’s teachings regarding communicating RF signals to pair devices.” [Pet.] at 39 (citing Ex. 1003 ¶¶ 183–185).

(D.I., 45.)

The Board then noted *Apple’s argument* “with respect to limitation 1(d)(iv), that *Vauclair* teaches ‘generate a . . . signal . . . where the signal [is] generated by the graphical user interface’ Pet. 33 (citing Ex. 1005 ¶30; Ex. 1003 ¶ 168).” (D.I., 45 (bold emphasis added).) The Board then rejected Apple’s reading of *Vauclair* because that reference does not disclose what Apple originally contended. (*Id.*, 45-47.) The Board did not address Apple’s new theory because Apple never asserted nor supported the new theory in its Petition. The Board is not permitted to address obviousness arguments that were never presented in the Petition. *Intelligent Bio-systems Inc.*, 821 F.3d at 1366.

Apple asserts that the Federal Circuit’s decision in *Palo Alto Networks, Inc. v. Centripetal Networks, LLC*, 122 F.4th 1378, 1386 (Fed. Cir. 2024) is instructive. (Reply, 12-14.) In that case, the dispute concerned whether the Board, in its Final Written Decision, made a sufficient finding on a motivation to combine two prior art references. *Palo Alto Networks*, 122 F.4th at 1385. The Federal Circuit required the Board to consider the obviousness of “modifying Paxton by adding Sutton’s notification step after Paxton’s correlation step.” *Id.* at 1386. But in that case, the modification of one reference based on the other was proposed in the Petition. *Id.* at 1382-1383. In this case, in contrast, Apple’s Petition did not propose a

combination where neither reference discloses a paring signal generated by a graphical user interface as required by limitation 1(d)(v). And Apple provides no factual support for its belated Reply theory to modify Kalliola's graphical user interface based on Vauclair. As explained above, a POSITA would not have had a reason to make the modification Apple now proposes.

Apple criticizes THL and its expert for focusing on Vauclair with respect to the disputed claim limitation. (Reply, 16-20.) But like the Board, THL and its expert were disputing the obviousness ground Apple presented in its Petition.

For the reasons above, the Board did not err in evaluating limitation 1(d)(v), and the Board should confirm the patentability of claims 1-9.

B. The Board did not err because it did not, as Apple asserts, overlook that Vauclair's "user input 28" is an input element

Apple incorrectly asserts the Board erred because its ID allegedly "overlooked that Vauclair's 'user input 28' is an input element, not an action of a user." (Reply, 1.) Apple focuses on one sentence from ID, 47, stating: "In the ID, the Board stated that "[w]hile Vauclair discloses that display 26 can present menu options, *id.*, it does not disclose anything more than that it is the action of user input that selects and sends a signal." (Reply, 15 (quoting ID, 47) (emphasis removed).) Apple omits the immediately preceding ID sentence, which states: "Vauclair discloses that it is 'user input 28' that allows the user 'to select from available menu options, *to send a signal*

to the control circuitry 22.” (ID, 46 (emphasis in original).) Thus, the Board did not overlook that “user input 28” is an input element nor suggest it was an action of a user. On the contrary, the Board expressly stated the user input 28 “allows the user ‘to select from available menu options’”—*i.e.*, an input element used by a user.

Apple’s second alleged error is therefore baseless.

III. CONCLUSION

For the above reasons, the Board should deny the Petition and confirm the patentability of claims 1-9.

Dated: March 6, 2025

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Certificate of Service

The undersigned hereby certifies that on March 6, 2025, a complete and entire copy of PATENT OWNER'S SURREPLY TO PETITION, was served via electronic mail to the attorneys listed below:

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