IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.

Petitioners,

v.

PROXENSE, LLC

Patent Owner

IPR2025-00562

U.S. Patent No. 9,049,188 B1

PATENT OWNER SUR-REPLY

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I. INTRODUCTION

Apple continues its efforts to invite the Board to resolve a legal conundrum by exceeding its statutory authority. As the Board recognized, the district court determined "that 'hybrid device' is not indefinite" under 35 U.S.C. § 112. Paper 9, at 10. Importantly, Congress excluded from this Board the authority to determine the validity of claims with regards to definiteness under § 112. *See* 35 U.S.C. § 311(b). The Board, therefore, lacks the authority to overrule or disturb a district court's finding on definiteness.

When ruling on the definiteness of the term "hybrid device," the district court stated that a "POSITA could reasonably ascertain the scope of the claim because the claims explain the ***required operation*** of the 'hybrid device.'" Ex. 2001, at 26 (emphasis added). Accordingly, the district court found the presence of the ***required operation*** makes the claims valid under § 112. Interpreting the claims as **not** to include the ***required operation*** would remove from the claims the very thing that the district court found renders the claims valid under § 112. While the Board may not wish to adopt a construction under 35 U.S.C. § 112, para. 6, it can neither circumvent nor overrule the district court's ruling by construing the claims in any manner that excludes the ***required operation***. Therefore, to avoid exceeding its statutory authority, the Board must either: 1) accept that the claims must be construed as including the ***required operation*** that the district court found rendered the claims

valid and definite under § 112; or 2) terminate these proceedings with a finding that the claims are indefinite. The Board should not succumb to Apple's persistent pressure to construe the claims as excluding the ***required operation,*** as to render the claims indefinite, and then invalidate the claims under 35 U.S.C. § 103.

II. RESOLVING THE BOARD'S CONUNDRUM REQUIRES CONSTRUING THE CLAIMS AS INCLUDING THE ALGORITHM RECITED IN THE SPECIFICATION

Apple has failed to suggest any solution to the legal conundrum Proxense laid out in the Patent Owner Response (Paper 11). As Proxense explained, the Board must either: 1) interpret the claims such that the algorithm disclosed in the specification is the structure for performing the recited function; or 2) find the claims indefinite and terminate the proceedings without invalidating the claims. Paper 11, at 42-48. The Board cannot disturb the district court's determination that the claims are definite because a "POSITA could reasonably ascertain the scope of the claim because the claims explain ***the required operation*** of the 'hybrid device." Ex 2001, at 26 (emphasis added). The Board should construe the claims as requiring the algorithm disclosed in the specification and implemented by control logic 250.

"A petition for inter partes review … can request cancellation of claims 'only on a ground that could be raised under section 102 or 103 of the Patent Act and only on the basis of prior art consisting of patents or printed publications.'" *Samsung Electronics America v. Prisua Engineering*, 948 F. 3d 1342, 1344 (Fed. Cir. 2020)

(citing 35 U.S.C. § 311(b)). While the Board has inherent authority to perform claim construction, and "although indefiniteness analysis involves general claim construction principles, it does not follow that the Board may exceed its statutorily limited authority simply because an indefiniteness issue arises during claim construction." *Id,* at 1353 (internal citation omitted). Consequently, "[e]ven though the validity of the challenged claims may be subject to question for [] indefiniteness, that is simply another ground on which the claims might be challenged in an appropriate forum (other than the Board)." *Id,* at 1355. "Congress expressly limited the scope of inter partes review to a subset of grounds that can be raised under 35 U.S.C. §§ 102 & 103. 35 U.S.C. § 311(b)" *Neptune Generics, LLC v. Eli Lilly & Co.*, 921 F. 3d 1372, 1378 (Fed. Cir. 2019). Accordingly, this Board lacks the authority to determine the validity of the claims with regards to definiteness under § 112.

By contrast, Congress empowered the district courts with the authority to determine issues of validity based on indefiniteness under § 112. *See* 35 USC § 282(b)(3)(A). Accordingly, whether the claims of an issued patent are definite under § 112, and for what reasons, is the exclusive purview of the district court. Consequently, this Board must accept a district court determination regarding the definiteness of issued claims for purposes of validity under § 112.

The district court has determined that the claims of the 188 Patent ***are definite*** under § 112, and for what reasons. Specifically, the district court held:

> The Court finds that the term is not indefinite and should receive the construction of 'A device comprising an integrated personal digital key (PDK) and an integrated receiver-decoder circuit.' ***A POSITA could reasonably ascertain the scope of the claim because the claims explain the required operation of the 'hybrid device.'*** Claims 1 and 10 of the 188 Patent and claims 1 and 11 of the 700 Patent state, 'one or more of the integrated RDC and integrated PDK enabling one or more an application, a function and a service.' ***An application, function, or service is 'enabled' by a PDK when it receives information from a PDK in exchange for an access key. Similarly, an RDC 'enable[es] one or more of an application, a function, and a service' when it forwards such a message to the application, function, or service. The claimed 'hybrid device' carries out these functions.***

Ex 2001 at 26 (emphasis added). Thus, the district court determined that the claims *are definite* because a POSITA would understand that the "hybrid device" recited in the claims performs the "***required operation***" of receiving information from a PDK in exchange for an access key provided to the PDK and/or forwarding such information to the application, function, and/or service to be enabled. In other words, the district court held the claims were definite because a POSITA would understand them as requiring performance of the algorithm implemented by control logic 250. Consequently, should the claims be improperly construed to remove this ***required operation*** then they would lack the very thing that the district court found renders the claims definite and valid under § 112 – inappropriately rendering the claims indefinite.

While this Board has the "inherent authority to perform claim construction … it does not follow that the Board may exceed its statutorily limited authority simply

because an indefiniteness issue arises during claim construction." *Samsung,* 948 F.3d at 1353. Accordingly, the Board's claim construction authority does not give it the power to read performance of the algorithm out of the claims, as doing so would remove from the claims the very reason the district court found the claims definite and valid under § 112. Such action by the Board would supplant the district court's § 112 validity determination with its own and thus exceed the Board's statutory authority. Therefore, the Board should construe the claims to include the algorithm disclosed in the specification as implemented by control logic 250.

The Board has construed claims containing similar language in other, related patents as not including the algorithm implemented by control logic 250. However, maintaining that construction with regards to the 188 Patent would remove the ***required operation*** from the claims, the presence of which was the district court's basis for finding the claims valid and definite under § 112. Thus, if the Board maintains its prior construction, then the claims would be construed as lacking the very thing the district court found actually renders them valid and definite under § 112. Consequently, should the Board maintain its prior construction of this claim language it would be construing the claims of the 188 Patent to be indefinite.

To assist the Board in resolving this statutory conundrum, Proxense has proposed construing the claims as invoking § 112, para. 6. As stated in the Patent Owner Response, a construction invoking § 112, para. 6, would be consistent with

the district court's findings regarding definiteness and its constructions of PDK, RDC, and "hybrid device." Additionally, it would be consistent with established case law precedent, including *Aristocrat, HTC Corp., Williamson, Ergo Licensing,* and *Rain Computing*. Finally, it would be fully consistent with MPEP § 2181(II)(B).

Should, however, the Board find Proxense's proposed solution incompatible with its prior decisions, then the Board should find the claims are indefinite, making it impossible to adjudicate the prior-art challenges on the merits. *Intel Corp. v. Qualcomm Inc.*, 21 F. 4th 801, 814 (Fed. Cir. 2021). Proxense, of course, believes the claims are definite for at least the reasons stated by the district court. Furthermore, it is questionable whether a finding of indefiniteness by the Board would be legally appropriate. As such, Proxense strongly urges the Board not to take such action.

Furthermore, as Proxense has dismissed all claims against Apple with respect to the 188 Patent with prejudice **Ex. 2017**, Apple now also lacks the necessary case or controversy to sustain an appeal of these proceedings.

III. DR. WOLFE ESTABLISHES THAT THE CLAIMS INVOKE § 112, PARA. 6, BECAUSE HE IDENTIFIES LEGALLY INSUFFICIENT STRUCTURES

Despite what Apple's attempt to argue otherwise, the test is not whether the claims recite structure. "For the presumption that § 112[, par 6,] does not apply to be overcome, [Patent Owner] must show that [the] claim [] does not recite sufficient

structure to perform that function." *Magnolia Medical v. Kurin, Inc.,* No. 2024-2001, slip op. at 17 (Fed. Cir. March 6, 2026). At issue in *Magnolia Medical* was whether "'inlet' and 'outlets,' when taken collectively, [were] sufficient [structures] to perform the functionality of the "diverter" limitation, without the need for additional structure" *Magnolia Medical*, slip op. at 18. The "functionality of the recited 'diverter' was to 'direct bodily fluid down one of two paths." *Magnolia Medical*, slip op. at 17.

Accordingly, the issue in *Magnolia Medical* was not whether structure was recited in the claims, but whether the claims recited sufficient structure (i.e., inlet and outlets) to direct fluids down one of two paths, and therefore the presumption that § 112(f) [did] not apply [had] not been rebutted." *Magnolia Medical*, slip op. at 18. As here, the patent challenger, presented expert testimony that "a person of ordinary skill would understand a 'diverter' that directs flow down one of two paths to include 'at least one inlet and two outlets branches.'" *Magnolia Medical*, slip op. at 18. The court found that expert's statement "undermines, rather than supports, [] argument that the presumption against § 112(f) has not been overcome" because "all 'diverters' in this context include 'at least' one 'inlet' and two 'outlets'; ***the issue is whether an additional structure is needed*** to direct fluid down one of two paths." *Magnolia Medical*, slip op. at 18 (emphasis added). Thus, the correct test is not whether the claims recite structure, but whether the claims recite sufficient structure

for performing the claimed function, here, the "enabling one or more of an application, a function, and a service."

A general purpose computer, as a matter of law, is *not* sufficient structure for performing the claimed function. "[T]his court has consistently required that the structure disclosed [] be more than simply a general purpose computer or microprocessor." *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Accordingly, when the structure for performing the claimed function is a general purpose computer, this Court "requires that the specification disclose an algorithm for performing the claimed function." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1352 (Fed. Cir. 2015) (en banc).

This rule has been consistently applied regardless of whether the computer is identified as a whole or by its individual components as the structure for performing the function. For instance, controlling precedent states that a "***district court erred*** [] in concluding that the disclosure of ***computer-readable media or storage devices provided sufficient structure***" because "computer readable media or storage devices ***amount to nothing more than a general-purpose computer.***" *Rain Computing v. Samsung Electronics America,* 989 F.3d 1002, 1007 (Fed Cir. 2021) (emphasis added). Accordingly, memory and other storage devices are insufficient structures. Controlling precedent also states that a "***district court misstated the law*** [] when it stated that disclosure of a ***processor and transceiver alone was sufficient to provide***

structure." *HTC Corp. v. IPCom GmbH & Co., KG,* 667 F.3d 1270. 1280 (Fed. Cir. 2012). Likewise, processors and transceivers are insufficient structure. The same is true even when a general purpose computer is given a fancy name like "control device" or "distributed learning control module," because "even if we were to accept that one skilled in the art would ***understand a control device to be a general-purpose computer***, the specification ***fails to disclose a corresponding algorithm required by our precedent***." *Ergo Licensing, LLC v. CareFusion 303, Inc.,* 673 F.3d 1361, 1364 (Fed. Cir. 2012) (emphasis added).

That general purpose computers are legally insufficient structures has become so axiomatic that it is repeated in the MPEP § 2181(II)(B):

> To claim a means for performing a specific computer-implemented function and then ***to disclose only a general purpose computer as the structure designed to perform that function amounts to pure functional claiming***. ***Aristocrat,*** 521 F.3d 1328 at 1333, 86 USPQ2d at 1239. In this instance, the structure corresponding to a 35 U.S.C. 112(f) claim limitation for a computer-implemented function ***must include the algorithm needed to transform the general purpose computer or microprocessor disclosed in the specification. Aristocrat***, 521 F.3d at 1333, 86 USPQ2d at 1239; *Finisar Corp. v. DirecTV Group, Inc.,* 523 F.3d 1323, 1340, 86 USPQ2d 1609, 1623 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int'l Game Tech.,* 184 F.3d 1339, 1349, 51 USPQ2d 1385, 1391 (Fed. Cir. 1999); *Rain Computing, Inc. v. Samsung Electronics America Co.,* 989 F.3d 1002, 1007-8, 2021 USPQ2d 284 (Fed. Cir. 2021).
>
> ***The corresponding structure is not simply a general purpose computer by itself but the special purpose computer as programmed to perform the disclosed algorithm***. ***Aristocrat,*** 521 F.3d at 1333, 86 USPQ2d at 1239.

Accordingly, before *Williamson* even considered nonce words, it was "established that the ***corresponding structure*** for a § 112 ¶ 6 claim for a computer-implemented function ***is the algorithm disclosed in the specification***." *Ergo Licensing,* 673 F.3d at 1364 (emphasis added).

Dr. Wolfe identifies only those structures that, as a matter of law, are general-purpose computers, and thus his testimony mandates the invocation of § 112, para. 6. Dr. Wolfe testifies that that "***memory structures can participate*** in 'enabling one or more of an application, a function, and a service' ***by simply storing information*** such as access information, necessary to access or otherwise invoke that application, function, or service**.**" Ex. 1013, ¶ 39 (emphasis added). As such, Dr. Wolfe testifies that memory participates in enabling by doing nothing more than storing information – i.e., by being a general purpose computer.

> As a matter of law, memory is an insufficient structure.
>
> ***The district court erred***, however, in concluding that the disclosure of computer readable media or storage devices provided sufficient structure for the 'control access' function. ***These computer-readable media or storage devices amount to nothing more than a general-purpose computer***. And 'controlling access to one or more software application packages to which the user has a subscription ***requires more 'than merely plugging in a general purpose computer.'*** Rather, some special programming, i.e., an algorithm, would be required to control access to the software application packages.

Rain Computing, 989 F.3d 1007-1008 (citations omitted and emphasis added).

Dr. Wolfe further testifies the RDC is general purpose computer, and thus legally insufficient structure. Per Dr. Wolfe, the RDC participates in the enabling function "***by enabling wireless communication of information, such as access information, necessary to access or otherwise invoke that application, function, or service***." Ex 1013, ¶55 (emphasis added). Thus, Dr. Wolfe recognizes the RDC enables an application by merely performing the functions of a transceiver - again by being a general purpose computer.

> As a matter of law, this is insufficient structure.
>
> ***The district court misstated the law,*** however, when it stated that disclosure of a ***processor and transceiver alone was sufficient to provide structure to these claims***. The processor and transceiver amount to ***nothing more than a general-purpose computer***. We have consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.

HTC Corp., 667 F.3d at 1280. (emphasis added and citation omitted).

Accordingly, Dr. Wolfe has only identified what under binding precedent is, as a matter of law, insufficient structure for performing the claimed function of "enabling one or more of an application, a function, and a service." "For the presumption that § 112[, par 6,] does not apply to be overcome, [it] must show that [the] claim [] does not recite sufficient structure to perform that function." *Magnolia Medical v. Kurin, Inc.,* No. 2024-2001, slip op. at 17 (Fed. Cir. March 6, 2026). Accordingly, Dr. Wolfe's testimony establishes that claims invoke § 112, para. 6, as a matter of law.

Should there be any doubt that the memory and communication identified by Dr. Wolfe are insufficient structures by themselves (just like the inlet and outlets of the *Magnolia Medical* diverter), Dr. Wolfe further testifies that performing the function of "enabling one or more of an application, a function, and a service" requires the additional structure of an algorithm.

Recognizing the ***"memory structures" and "wireless communication"*** are insufficient structures without an algorithm, Dr. Wolfe defined the enabling function by their algorithmic operation:

> the context of short-range communication devices used to enable a function, application, or service, (e.g., RFID) … , a POSITA would have understood that a memory can, for example, ***enable a function, application, or service through a basic exchange of locally stored information between the memory and another device seeking access to the stored information to authorize the enabling, i.e., the activation of the application, function, or service***.

Ex 1013, ¶52 (emphasis added). Accordingly, the Dr. Wolfe asserts that absent an algorithm none of the structures recited in the claims provide the requisite structure for the claimed function of "enabling one or more of an application, a function, and a service." Thus, Dr. Wolfe's testimony is consistent with the binding precedent that general purpose computers, absent an algorithm, fail to provide sufficient structure for performing the claimed function.

Additionally, Dr. Wolfe's testimony that the algorithm provides the structure is consistent with the recognized principle that, "[u]nlike in the mechanical arts, the

specific structure of software code and applications is partly defined by its function." *Dyfan, LLC v. Target Corp.* 28 F.4th 1360, 1368 (Fed. Cir. 2022). In *Dyfan,* it was determined that the term "code" did not invoke § 112, para. 6, because the expert "testified that [] 'application' is 'a term of art' that a person of ordinary skill in the art would have ***understood as a particular structure***." *Dyfan,* 28 F.4th at 1368 (emphasis added). Form that testimony, the court concluded that "because the recited functions can be performed by conventional ***off-the-shelf software***, a person of ordinary skill in the art would have understood the alleged means-plus-function ***'code' limitations in the asserted claims to connote structure***." *Dyfan,* 28 F.4th at 1369 (emphasis added). Thus, though Apple would have the Board believe otherwise, *Dyfan* stands for the same principle as *Aristocrat* – **algorithms are the corresponding structure**. And just like in *Dyfan,* Dr. Wolfe testified that the algorithm is the structure.

More strikingly, the algorithm Dr. Wolfe identified as the corresponding structure is the same ***"required operation"*** the district court found rendered the claims definite and valid under § 112. Accordingly, to the extent Apple wants this Board to follow *Dyfan* and the testimony of Dr. Wolfe, then it must find the structure is the algorithm – the **required operation** identified by the district court in finding the claims valid and definite under § 112. Thus, Dr. Wolfe's testimony and *Dyfan*

further support resolving the Board's legal conundrum by finding the claims invoke § 112, para. 6.

IV. RESOLVING THE LEGAL CONUNDRUM RESULTS IN A LOSS FOR APPLE

Apple, unlike Proxense, fails to offer any solutions to the Board's legal conundrum. Instead, Apple attempts to misdirect the Board with a logical fallacy. According to Apple, there is no conundrum because "Proxense has not argued in litigation that the claim terms are means-plus-function terms." Paper 12, at 16-17. Regardless of what Proxense argued or didn't argue, **the district court ruled on definiteness under § 112**. This ruling is not superseded by a prior position taken by Proxense.

Should the Board construe the claims in the manner necessitated by the district court's definiteness determination under § 112, that construction would include the "***required operation***" of receiving information from a PDK in exchange for an access key provided to the PDK and/or forwarding such information to the application, function, and/or service to be enabled. But Apple's Petition **failed to map** the prior art to this "***required operation.***" Consequently, the Board must find Apple failed to establish the unpatentability of the challenged claims.

On the other hand, should the Board decide to find the claims indefinite, it would be unable to adjudicate Apple's prior art challenges on the merits. As such, this IPR would have to be terminated without rendering a decision on the merits.

Rather than face this uncomfortable reality, Apple continues to argue the Board should exceed its statutory authority and construe the claims in the manner the district court has determined would render the claims indefinite. The district court has spoken and determined that the claims are definite because they include the "***required operation***" of receiving information from a PDK in exchange for an access key provided to the PDK and/or forwarding such information to the application, function, and/or service to be enabled. Removing this limitation from the claims would render the claims indefinite and thus necessitate terminating these proceedings. Continuing onto a determination of validity under §§ 102 and/or 103 would supplant the district court's validity determination with the Board's. But this would exceed the Board's statutory authority. Therefore, the Board must resist Apple's persistent pressure to construe the claims as excluding the "***required operation***" that renders the claims definite and then invalidating the claims under § 103.

V. CONCLUSION

In view of the foregoing, the Board's statutory authority is limited to taking one of two actions: 1) interpreting the claims such that the algorithm disclosed in the specification is the structure for performing the recited function, or 2) finding the claims indefinite. Should the Board decide on the first, Apple's failure to map the "***required operation***" to the prior art necessitates finding Apple's Petition fails to

establish the unpatentability of the challenged claims. Should the Board decide on the second, then it must terminate the proceedings without invalidating the claims. Either way, Apple's Petition cannot be used as a basis to invalidate the claims of the 188 Patent.

Dated: April 30, 2026

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CERTIFICATION OF WORD COUNT UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner Response (excluding the table of contents, certificate of service, word count, or listing of exhibits) total 3,804 words, which is less than the 5,600 words allowed under 37 C.F.R. § 42.24(c)(4).

Dated: April 30, 2026

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6(e)

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that the Patent Owner Response was served on April 30, 2026, by e-mailing copies to the following e-mail addresses provided by Petitioner in the Petition.

Dated: April 30, 2026

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