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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICRON TECHNOLOGY, INC.; MICRON SEMICONDUCTOR
PRODUCTS, INC.; and MICRON TECHNOLOGY TEXAS LLC,
Petitioners,

v.
NETLIST, INC.,
Netlist.

Case IPR2022-00418
Patent 8,301,833 B1

NETLIST'S SUR-REPLY

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I. INTRODUCTION

Petitioners do not rebut Netlist’s arguments that when “a first mode of operation” and “a second mode of operation” are correctly construed per Netlist’s proposed constructions—which Petitioners’ expert *agrees with*—the asserted references do not render those limitations obvious. Petitioners have not shown collateral estoppel applies.

II. NETLIST’S PROPOSED CONSTRUCTIONS ARE PROPER

Petitioners assert Netlist is “asking this Board to change the simple terms of ‘first’ and ‘second’ into 16-25 words . . .” Paper 22, 1. Petitioners are wrong. Netlist correctly interprets “a first mode of operation” and “a second mode of operation” according to a POSITA’s understanding in view of the ’833 Patent.

Petitioners’ argument that the terms “are clear on their face and should not be construed” is specious at best. Paper 22, 2. Petitioners did not seek formal constructions, but nonetheless interpreted and applied these terms inappropriately throughout their analysis. Accordingly, Petitioners called the claim scope into dispute, and these terms must be construed. *See 3rd Eye Surveillance, LLC v. United States*, 140 Fed. Cl. 39, 53 (2018) (Courts “must construe any term for which claim scope is disputed.”).

Petitioners further assert that “the surrounding claim language . . . *does not* define these terms with respect to ‘backup or restore operations’.” Paper 22, 2-3

(citing *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 326 F.3d 1215, 1220 (Fed. Cir. 2003)). However, Petitioners ignore that *they* defined these terms “with respect to ‘backup or restore operations’,” interpreting “a first mode of operation” as “the operation of the system when no write-back trigger is detected” (Pet. 28), and “a second mode of operation” as “the operation of the system when a power-loss write-back trigger is detected” (*id.*, 31). Best’s “write-back trigger” initiates write-back operations to transfer data from volatile memory to non-volatile memory, which operations are referred to as “backup” operations in other references. *See, e.g.*, Ex. 1006, [0012] (“[S]ystematic write-back from the DRAM to a Flash memory [provides] a non-volatile image of the DRAM contents”); Ex. 1001, 4:14-18; 7:41-48. Petitioners attempt to have it both ways—arguing that interpreting the first and second modes in terms of backup operations is improper, but applying that same interpretation themselves.

Moreover, *Brookhill-Wilk* is distinguishable. There, the Federal Circuit rejected construction of “remote location” as “a location outside the operating room.” *Brookhill-Wilk*, 326 F.3d at 1219. The court noted that “remote location” “find[s] context in the surrounding phrase ‘remote location beyond a range of direct manual contact.’” *Id.*, 1220. Rejecting the dictionary definition the district court relied on, the court looked to the specification for guidance, noting the “written description sets forth no specific parameters as to the distance between the surgeon

and patient, but teaches generally that a surgeon . . . may operate without directly touching the patient” *Id.*, 1221-1222. Finding no support in the specification for construing “remote location” as “a location outside the operating room,” the Federal Circuit construed, “remote location” to encompass “locations [that] need not be outside the operating room.” *Id.*, 1223. Here, unlike *Brookhill-Wilk*, Netlist explained how the specification supports its constructions and, importantly, both experts agree with Netlist’s interpretation. *See* Paper 19, 16-27. Netlist’s constructions are consistent with a POSITA’s understanding of these terms as they are used in the ’833 Patent.

Petitioners argue Netlist “improperly ignore[s] that the dependent claims already recite the limitations [Netlist] urges,” asserting that a dependent claim limitation “gives rise to a presumption that the limitation . . . is not present in the independent claim.” Paper 19, 4. Petitioners ignore claim scope differences between claim 15 and dependent claims. For example, dependent claim 16 recites, in part, a controller configured to “decouple the non-volatile memory subsystem from the volatile memory subsystem in the first mode of operation.” Ex. 1001, claim 16. “Decouple from” conveys a narrower claim scope than “does not communicate with”; decoupling is a specific way of preventing communication, not the only way.

Similarly, dependent claim 28 recites, in part, “wherein the second mode of operation comprises a restore operation in which data is communicated from the

non-volatile memory subsystem to the volatile memory subsystem.” *Id.*, claim 28. Claim 15, properly construed, includes a second mode of operation comprising only backup operations, only restore operations, or comprising both backup and restore operations. Claim 28 is narrower because it requires a restore operation. *See, e.g.*, Ex. 1001, 18:1-7 (disclosing the second mode of operation may include only backup, only restore, or both backup and restore operations).

Moreover, the Federal Circuit has held “the presumption of differentiation in claim scope is ‘not a hard and fast rule.’” *Littelfuse, Inc. v. Mersen USA EP Corp.*, 29 F.4th 1376, 1380 (Fed. Cir. 2022) (quoting *Seachange, Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005)). Claim differentiation presumptions “will be overcome by a contrary construction dictated by the written description or prosecution history.” *Id.* (quoting *Retractable Techs., Inc. v. Becton, Dickinson, and Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011)) (internal quotes omitted). Here, the ’833 Patent’s specification makes clear the meaning of the first and second mode terms and, importantly, both experts agree with those meanings.

Petitioners attempt to disparage Dr. Przybylski’s (Netlist’s expert) interpretation of these terms. Paper 22, 4-6. Yet, Petitioners ignore that during his own deposition, Petitioners’ expert, Mr. Maltiel, *agreed with* Dr. Przybylski’s interpretations. Paper 19, 16; 22-23; 26. For example, Mr. Maltiel testified that the host does not communicate with the non-volatile memory in the first mode. Ex.

2005, 58:22-59:4. Mr. Maltiel further testified that the non-volatile memory does not communicate with the volatile memory in the first mode. *Id.*, 59:12-15. Thus, Mr. Maltiel agrees with Dr. Przybylski that the first mode of operation is “a mode of operation wherein . . . the non-volatile memory subsystem does not communicate with the volatile memory subsystem or the host system.”

Mr. Maltiel also agreed during his deposition that backup or restore operations are performed in the second mode. Paper 19, 23; Ex. 2005, 68:5-8. Mr. Maltiel further agreed that the non-volatile memory does not communicate with the host in the second mode. Paper 19, 26; Ex. 2005, 68:13-19. Thus, *both experts agree* with Netlist’s interpretation of these terms, and that their meanings are clear and undisputed. Both experts agree that the communications or lack thereof are what differentiate the claimed first and second modes from other, generic, modes of operation. Petitioners make much of Dr. Przybylski’s testimony regarding the doctrine of claim differentiation (Paper 22, 5), but this is a red herring because dependent claim 16’s scope is narrower than claim 15. Claim differentiation is not relevant here.

Petitioners argue that *Amdocs*, *Toro*, and *Acclarent* “are inapplicable here because there is no clear statement in the ’833 Patent specification comparing the importance or advantages of a first or second mode of operation where the non-volatile memory or host, respectively, do not communicate as [Netlist] proposes . . .

as opposed to a first or second mode where the proposed barred communications are allowed to occur.” Paper 22, 6-7. Petitioners are wrong. Paper 19, 17.

For example, the ’833 Patent teaches that the non-volatile memory could “adversely affect[]” “the operation of the volatile memory” in the first mode of operation if the non-volatile memory is allowed to communicate with the volatile memory or the host “when the volatile memory is interacting with the host.” Ex. 1001, 4:5-9. The ’833 Patent further teaches that preventing the non-volatile memory from communicating with the volatile memory in the first mode “can preserve the integrity of the operation of the memory system 10 during periods of operation in which signals (e.g. data) are transmitted between the host system and the volatile memory subsystem 30.” *Id.*, 8:57-62. Petitioners’ contrary assertion notwithstanding, the ’833 Patent consistently and repeatedly teaches the importance of not allowing the non-volatile memory to communicate in the first mode in order to preserve the memory system’s integrity and ensure its operation is not adversely affected. Both experts agree the non-volatile memory does not communicate with the host in the second mode. Paper 19, 26.

Amdocs is applicable. There, *Amdocs* argued “including ‘in a distributed fashion’ in the construction of ‘enhance’ is an impermissible importation of limitations from the specification.” *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 761 F.3d 1329, 1340 (Fed. Cir. 2014). The Federal Circuit disagreed, noting “the

specification repeatedly recites the advantages of distributed enhancement,” and holding the “*district court* properly concluded that the embodiments define the outer limits of the claim term and *did not err in reading* the ‘in a distributed fashion’ and the ‘close to the source’ of network information *requirements into the term* ‘enhance.’” *Id.* (emphasis added).

Here, as in *Amdocs*, Petitioners argue Netlist merely imports limitations from the specification. Paper 22, 1. But, as in *Amdocs*, the ’833 Patent “repeatedly recites the advantages” of protecting the integrity of the memory system’s operation, consistent with Netlist’s proposed constructions. Thus, just as the Federal Circuit concluded that the “district court . . . did not err in reading . . . requirements into the term ‘enhance’,” there is no error with respect to Netlist’s proposed constructions.

Petitioners argue *Acclarent* “focused on precedent interpreting the terms ‘configured to’ and ‘adapted to.’” Paper 22, 7. But Petitioners do not cite any law rebutting the premise for which Netlist cites *Acclarent*; that the specification may support a “narrower construction by describing the structure necessary to perform the claimed functions and stressing the importance of the [function] over the prior art.” *Acclarent, Inc. v. Albritten*, IPR2017-00498, Paper 40, 15 (PTAB Dec. 16, 2015). Here, as in *Acclarent*, the ’833 Patent describes the structures necessary to prevent the communications in Netlist’s proposed constructions, and stresses the importance of preventing those communications.

Petitioners assert that “*Toro* construed terms using dictionary definitions and claim differentiation.” Paper 22, 7. Not true. The Federal Circuit stated in *Toro* that “[t]his question ***can not be decided by a dictionary.***” *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1300 (Fed. Cir. 1999) (emphasis added). The court noted that, “[t]he ***dictionary definitions*** of ‘cover’ and of ‘including’ ***do not shed dispositive light***” on the scope of those terms. *Id.* (emphasis added). Instead, the court turned to the “specification and drawings,” noting they “show the restriction ring as ‘part of’ and permanently attached to the cover. No other structure is illustrated or described.” *Id.*, 1301. The court further observed the specification “***describes the advantages*** of the unitary structure as ***important to the invention.***” *Id.* (emphasis added). The court reiterated that terms are “not construed in a lexicographic vacuum, but in the context of the specification and drawings.” *Id.* Thus, *Toro* supports the proposition that when a specification “describes the advantages” of a particular configuration as “important to the invention,” and when “[n]o other structure is illustrated or described” therein, claims should be construed as requiring that configuration. That is the situation here, where the terms first and second mode of operation read in isolation, absent the context provided by the written description, do not shed dispositive light on the scope of the invention.

The Federal Circuit noted that claim differentiation “does not serve to broaden claims beyond their meaning in light of the specification, and does not override clear

statements of scope in the specification and the prosecution history.” *Id.*, 1302. Petitioners’ are simply wrong when they assert that “*Toro* construed terms using dictionary definitions and claim differentiation.” Paper 22, 7. The Federal Circuit construed the disputed terms in view of the “specification and drawings.”

Finally, Petitioners assert that “Netlist’s claim construction posture in the related litigation further confirms no construction is necessary here,” because “Netlist proposed no claim constructions were necessary, even though Petitioners had already identified the prior art relied upon in this proceeding.” Paper 22, 7-8. Petitioners further allege that, “Netlist has no excuse as to why it is urging a different claim construction here . . .” Paper 22, 8. Not so.

The Board’s decision in *Samsung Elec. Co. Ltd., et al. v. Smart Mobile Tech. LLC*, IPR2022-01249, Paper 13 (PTAB Jul. 6, 2022) is instructive. There, the Board recognized that “[p]atent owners may seek a broader construction in court to prove infringement but present a narrower construction before the Board to avoid unpatentability.” *Id.*, Paper 13, 19. The Board further noted that although it applies the same standard as the courts, it need not apply the same construction. *Id.* (citing Rule 42.100(b)). Here, in the underlying litigation, (1) only a limited number of terms between four patents were allowed to be construed (Ex. 1021, 4), (2) Petitioners had not yet put these two terms in dispute, and (3) there was no testimony from Petitioners’ expert confirming these terms’ meanings. And even if Netlist had

proposed to construe these terms in the district court, and even if the district court had construed them, the Board is not obligated to adopt such constructions. Thus, the fact that Netlist did not propose to construe these two terms in the underlying litigation does not mean the terms should not be construed in this proceeding.

Moreover, Petitioners' invalidity contentions in the District Court litigation did not interpret and apply these two terms as Petitioners do here. For example, nowhere in Petitioners' invalidity contention chart for Best did Petitioners state "Best . . . describes at least two modes of operation: (1) the operation of the system when no write-back trigger is detected (*"a first mode of operation"*), and (2) the operation of the system when a power-loss event write-back trigger is detected such as a power-loss (*"a second mode of operation"*)," as Petitioners assert here. Pet. 30 (emphasis original).

At bottom, Petitioners attempt to distance themselves from their own incorrect interpretation and application of these terms by simply ignoring it. But, as explained in Netlist's Response, Petitioners put the meaning of these terms in dispute, and these terms require construction in this proceeding.

III. COLLATERAL ESTOPPEL

Petitioners have not shown that the elements for collateral estoppel are satisfied. And even if they were, collateral estoppel would only apply to two claims in this proceeding.

A. The different claim construction standards materially alter the question of validity

Petitioners cite *XY, LLC v. Trans Ova Genetics, L.C.*, 890 F.3d 1282, 1294 (Fed. Cir. 2018), arguing that “[c]ollateral estoppel can apply even if the issue was previously decided under different legal standards.” Paper 22, 9. The *XY* case, however, dealt with special circumstances where, *on the same day*, the Federal Circuit (1) affirmed a PTAB final written decision invalidating the claims at issue, and (2) in a second case involving the *same claims*, dismissed as moot defendants’ appeal on the basis of the affirmance’s “immediate issue-preclusive effect on any pending or co-pending actions involving the patent.” *XY*, 890 F.3d at 1294. The Federal Circuit noted “[t]here is no indication that either party thought estoppel would not apply. Thus, this court, *in circumstances such as this one*, applies collateral estoppel *sua sponte* to avoid unnecessary judicial waste . . .” *Id.*, 1295 (emphasis added) (internal quotation omitted).

Petitioners read *XY* too broadly. The decision in *IOENGINE, LLC v. PayPal Holdings, Inc.*, 607 F. Supp. 3d 464 (D. Del. 2022) is instructive. Faced with a similar argument, after conducting “a close examination of the *XY* case and the scope of that court’s holding regarding collateral estoppel” the *IOENGINE* court concluded that “*XY* does not stand for so broad a proposition.” *IOENGINE*, 607 F. Supp. 3d at 490. The court noted that “[t]he Federal Circuit in *XY* reached a result roughly equivalent to the result it reached in [*Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 721

F.3d 1330 (Fed. Cir. 2013)],” wherein the Federal Circuit “previously held that when the PTO cancels a claim, ‘the patentee loses any cause of action based on that claim, and any pending litigation in which the claims are asserted becomes moot’ despite the differing standards of proof in the two forums.” *Id.*

“Importantly,” the court noted, “*Fresnius* was not based on collateral estoppel [but] on the fact that the PTO’s cancellation of patent claims extinguishes the patentee’s cause of action for infringement of those claims.” *Id.* The court further noted that because “the parties in *XY* agreed that estoppel should apply,” the Federal Circuit “had no reason to address whether collateral estoppel should apply despite the different legal standards” *Id.*, 491; *see also XY*, 890 F.3d at 1295. The *IOENGINE* court concluded the argument that *XY* stands for the general proposition that collateral estoppel applies even in the face of different legal standards “***ignores the special circumstances in which that case arose*** To read *XY* that broadly would mean that the Federal Circuit, without saying so, has created an exception to the general rule of the law of judgments that collateral estoppel does not apply in circumstances in which the standard of proof . . . is more exacting in the second forum than in the first.” *Id.*, 491 (emphasis added). The court in *IOENGINE* ultimately declined to apply collateral estoppel, observing that, “the Federal Circuit will have to resolve the question of the intended breadth of its decision in *XY*.” *Id.*

Here, unlike *XY*, the parties do not agree that collateral estoppel applies, and the same claims are not at issue. Thus, the Board should follow the *IOENGINE* court's example and decline to read *XY* as broadly as Petitioners suggest.

Petitioners argue that Netlist's "reliance on *B&B Hardware* . . . is misplaced" because that court observed "[m]inor variations in the application of what is in essence the same legal standard do not defeat preclusion." Paper 22, 9 (citing *B&B Hardware, LLC v. Hargis Indus., Inc.*, 575 U.S. 138, 154 (2015)) (emphasis omitted). Petitioners' reliance on their cited language from *B&B Hardware* is misplaced. In *B&B Hardware*, the Supreme Court noted the general proposition that "issues are not identical if the second action involves application of a different legal standard, even though the factual setting of both suits may be the same." *B&B Hardware*, 575 U.S. at 154. "**Here, however,**" the Supreme Court noted, "**the same** likelihood-of-confusion **standard applies** to both registration and infringement." *Id.* (emphasis added).

Having determined that the *same standard* applied, the Supreme Court further noted it did not matter whether the TTAB and lower courts "use different factors to assess likelihood of confusion," because "the factors are not fundamentally different, and [m]inor variations in the application of what is in essence the same legal standard do not defeat preclusion." *Id.*, 154 (internal quotes omitted). "Most important," the Supreme Court noted, "if federal law provides a single standard, parties cannot

escape preclusion simply by litigating anew in tribunals that apply that one standard differently . . . The real question, therefore, is whether likelihood of confusion for purposes of registration is the same standard as likelihood of confusion for purposes of infringement. We conclude it is . . .” *Id.*, 154.

The prior ’831 Patent IPR applied the “broadest reasonable interpretation standard,” while in this proceeding terms are construed under the *Phillips* standard. Paper 19, 13. Netlist cited *B&B Hardware* for the general proposition that “issues are not identical if the second action involves application of a different legal standard.” *B&B Hardware*, 575 U.S. at 154. In *B&B Hardware* the general proposition did not apply *in that case* because there was no “different legal standard.” Petitioners would have the exception swallow the rule. Here, unlike *B&B Hardware*, the same claim construction standard did not apply to the prior ’831 Patent IPR as in this proceeding. Thus, the issues here with respect to claim construction and the scope and meaning of the claims of the ’833 Patent are not identical to the prior IPR.

Petitioners’ reliance on *Nestle USA, Inc. v. Steuben Foods, Inc.*, 884 F.3d 1350 (Fed. Cir. 2018) is misplaced. There, the Board construed “aseptic” in a prior IPR of a related patent. Nestle appealed, and the Federal Circuit vacated and construed “aseptic” to mean “FDA level of aseptic.” *Nestle*, 884 F.3d at 1351. In the IPR at issue in *Nestle*, the Board construed “aseptic” and Nestle appealed, arguing the

construction was erroneous. *Id.* The Federal Circuit applied collateral estoppel, holding their prior construction of “aseptic” governed because both patents “provide identical lexicography for the term ‘aseptic’,” and neither party pointed to “any material difference between the two patents or their prosecution histories that would give rise to claim construction issues in this appeal different from those raised in the prior appeal.” *Id.*, 1352. The meaning of “aseptic” was resolved against Nestle in the prior appeal. *Id.* Thus, the Federal Circuit vacated, construed “aseptic” as “FDA level of aseptic,” and remanded. *Id.*

Here, unlike *Nestle*, the first and second mode terms were not construed in the prior IPR. Thus, their meanings were not previously resolved against Netlist. Moreover, in *Nestle* BRI applied in both proceedings. Here, different standards apply.

Petitioners’ reliance on *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2019-01204 (PTAB Jan. 20, 2021) is also misplaced. Preliminarily, Petitioners’ use of quotation marks is misleading. Petitioners quote both the Board and the petitioner, but make it seem as though the quoted statements are all attributable to the Board. Paper 22, 10. Petitioners write that “the Board recognized that the patent owner **‘cannot argue that the intervening change in claim construction standard bars collateral estoppel’** where the patent owner does not advance ‘an argument that turns on the claim construction standard.’” *Id.* (emphasis added). However, the bold,

italicized passage above is the *petitioners' argument*. *Amazon.com*, Paper 43, 63. In *Amazon.com*, the petitioner argued that the patent owner could not rely on “change in claim construction standard” to avoid collateral estoppel with respect to the “automatically resulted from” limitation, because patent owner *proffered no construction* for that limitation. *Id.* Here, however, Netlist’s argument hinges on the meaning of the first and second mode terms, for which Netlist proffers constructions.

Finally, Petitioners conclude that “it is very likely that the construction of the terms ‘a first mode of operation’ and ‘a second mode of operation’ would be the same” under the BRI or *Phillips* standards. Paper 22, 10. Petitioners’ assertion is pure speculation. Moreover, the application of the narrower *Phillips* standard permits narrower constructions, which explains why the first and second mode of operation terms are properly at issue here but were not at issue in the prior proceeding involving the BRI standard. Netlist has explained how the prior art does not disclose the first or second mode limitations when those terms are properly construed under the appropriate standard. Paper 19, 34-45. Thus, the construction of the first and second mode terms materially alters the question of validity here versus the prior IPR.

B. Petitioners have not shown the ’831 and ’833 Patents’ claims are materially identical

Petitioners assert they “provided an analysis of the similarities and differences between the limitations of” the ’831 and ’833 Patents. Paper 22, 11. In their Reply

as in their Petition, Petitioners conclude the claims of the two patents are “materially indistinguishable” but provides no analysis of why that is so. Petitioners assert their “claim comparison chart show[s] that claim 1 of the ’833 Patent and claim 15 of the ’831 Patent are materially indistinguishable.” *Id.* Petitioners ignore that the Board recognized Petitioners’ “side by side comparison of the claims . . . does not further address the differences” between the two patents. Paper 14, 23; Paper 19, 29. Both the Petition and Reply lack any *analysis* showing the claims of the two patents are “materially indistinguishable.”

Having failed in the Petition to carry their burden of showing that the claims are materially identical, Petitioners argue *for the first time* in their Reply that, “in the ’692 IPR, the ‘memory controller’ of the ’831 patent claim 15 was also mapped to a host system.” Paper 22, 12. Petitioners’ late argument is barred, and cannot save Petitioners from the fact that their Petition includes only conclusory statements that the claims of the two patents are “materially identical.” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369-70 (Fed. Cir. 2016). The claims are not materially identical. Paper 19, 28-31.

C. Claim construction was not actually litigated in the prior IPR

Construction of the ’833 Patent’s terms was not actually litigated in the prior IPR. Paper 19, 31-32. Petitioners’ attempt to distinguish *SkyHawke*, arguing that “the patent owner in *SkyHawke* was advancing an argument that turned on the claim

construction standard . . . [b]y contrast, Netlist’s arguments here do not turn on the claim construction standard.” Paper 22, 13-14. Not so.

First, the Federal Circuit in *SkyHawke* stated that “issue preclusion requires that the issues were actually litigated,” and that because BRI differs from *Phillips*, “the issue of claim construction under *Phillips* . . . has not been actually litigated.” *SkyHawke Techs., LLC v. Deca Int’l Corp.*, 828 F.3d 1373, 1376 (Fed. Cir. 2016). Petitioners cite no authority rebutting the proposition that when differing claim construction standards apply, claim construction has not been actually litigated for purposes of collateral estoppel.

Second, although Petitioners assert that Netlist’s arguments do not turn on claim construction, in the next breath Petitioners state that “Netlist’s arguments . . . **rest entirely upon** the Board accepting *Netlist’s . . . claim constructions.*” Compare Paper 22, 13 *with* Paper 22, 17 (emphasis added). Petitioners attempt to have it both ways, which demonstrates the impropriety of their arguments.

Third, Petitioners acknowledge that the first and second mode terms were not construed in the prior IPR, but nevertheless assert that the prior Board “gave those terms their ordinary and customary meanings, just as it would have if it were applying the *Phillips* claim construction standard to those undisputed terms.” Paper 19, 14. Petitioners apparently argue that *not* construing a term is the same as construing it, but that is false. Regardless, Petitioners ignore that here, both experts

agree with Netlist’s interpretation of the first and second mode terms; a fact missing in the prior IPR, and which the prior Board could not have taken into consideration.

Notably, if, as the Federal Circuit has held, construing a term under BRI means that term’s construction under *Phillips* “has not been actually litigated” (*SkyHawke*, 828 F.3d at 1376) then where, as here, the term was not construed *at all* under BRI, the issue of that term’s construction surely cannot be fairly said to have been “actually litigated” under the *Phillips* standard.

D. The “lack of incentive to litigate” exception applies

Petitioners assert that “Netlist cites no case where a court applied the lack-of-incentive-to-litigate exception to preclude application of collateral estoppel merely because the patent owner did not assert a patent for infringement against any party.” Paper 22, 15. But the application of collateral estoppel is determined on a case-by-case basis, and it is the facts of *this* case that are relevant. *See* 46 Am. Jur. 2d Judgments § 554 (Courts addressing collateral estoppel “should proceed cautiously on an ad hoc basis and examine the facts of each case.”). To the extent the Board determines that collateral estoppel applies in this proceeding, the Board must further determine whether, based on the facts of this case, the “lack of incentive to litigate” exception applies.

Petitioners further assert that Netlist “was well aware of the relationship between the ’831 Patent and the ’833 Patent” in the prior ’831 Patent IPR. Paper 22,

15. Petitioners suggest this fact indicates that “the stakes in the prior proceeding were much higher than Netlist portrays.” *Id.* The ’831 and ’833 Patents are related, but Petitioners fail to mention that the ’833 was challenged in a separate IPR, by the same petitioner, at the same time as the ’831 Patent IPR. The Board instituted the ’831 IPR on July 21, 2017 but, three days later, on July 24, 2017, *declined to institute* the ’833 IPR. *See* IPR2017-00649, Paper 7. No ’833 Patent claims were challenged in the prior ’831 Patent IPR, and the separate ’833 Patent IPR petition was denied institution. Thus, Netlist did not have a significant incentive to litigate the ’831 Patent IPR merely because of that patent’s relationship to the ’833 Patent.

IV. THE BEST, BONELLA, AND MILLS COMBINATION

A. Best does not disclose a first or second mode of operation

Petitioners effectively concede that if Netlist’s construction of “a first mode of operation” is correct, then Best does not disclose this limitation. Petitioners’ expert agrees that in the first mode of operation, the non-volatile memory does not communicate with the host or the volatile memory subsystem. Paper 19, 22. Petitioners do not address or rebut Netlist’s showing that in Best’s alleged “first mode of operation,” the host communicates with *both* the volatile and non-volatile memories, thus Best does not disclose this limitation. Paper 19, 34-38.

B. Best does not render obvious Claim 16

Petitioners misrepresent their argument with respect to Claim 16. Petitioners argue in their Reply that the Petition “showed how during Best’s first mode of

operation, the non-volatile and volatile memory subsystems are *decoupled* because the only memory paths that are enabled originate from the host to either volatile or non-volatile memory.” Paper 22, 18 (emphasis original). But nowhere in Petitioners’ argument regarding the “configured to decouple” limitation of Claim 16 did they mention Best’s inter-die data path 171, much less argue that Best discloses “decoupling” because inter-die data path 171 is disabled in Best’s alleged first mode while data paths 155 and 157 are “the only memory paths that are enabled,” as Petitioners contend in their Reply. Instead, the Petition argued Best allegedly discloses “decoupling” because “access to only one of the DRAM or the Flash memory is enabled.” Pet. 40. Petitioners emphasized that in Best’s alleged first mode, data is routed to “one of the secondary data paths 155, 157.” *Id.* (emphasis original). But as shown in Netlist’s Response, Best’s data paths 155 and 157—the *only* data paths cited in the Petition’s “configured to decouple” argument—have nothing to do with coupling or decoupling Best’s non-volatile memory to/from the volatile memory. Paper 19, 41-44. Petitioners’ new argument in the Reply should be rejected as untimely. Petitioners new argument should also be rejected because it is wrong. Best teaches that data may flow via inter-die data path 171 from non-volatile memory to volatile memory, and vice versa. Ex. 1006 at [0021]. Best does not disclose that inter-die data path 171 is ever disabled, as Petitioners suggest for the first time in their Reply and, moreover, Petitioners have not conclusively shown that

disabling equates to decoupling. Petitioners have not shown, and cannot show, that Best discloses a controller configured to decouple the non-volatile memory from the volatile memory in a first mode of operation.

C. A POSITA would not have been motivated to combine Best and Bonella

Petitioners dispute Netlist's assertion that Best's "power-loss trigger indicates that power will be unavailable soon, not that power is already unavailable." Paper 19, 19. Netlist cites Best at [0026], which teaches, in relevant part, write-back can be triggered by "detecting a power-loss or power down signal or event (i.e., performing all necessary write-backs—an operation referred to herein as flushing the write-back table—*as part of power down*)." Ex. 1006, [0026] (emphasis added). Petitioners conveniently omit Best's parenthetical when they quote paragraph [0026] in their Reply. A POSITA would understand that Best teaches performing write-backs as part of a *power down* procedure, prior to the removal of power to the system. A POSITA would understand that the ability to perform any module operation after the removal or failure of system power would require an alternate power source such as a battery or capacitor; a circumstance central to the teaching of the '833 Patent. Ex. 1001, Abstract; 3:60-4:4; 4:29-32. A POSITA would further understand that Best does not disclose a secondary or backup power source such as a battery or capacitor, and that all write-backs are performed before power is lost. A

POSITA would thus understand that Best’s “power-loss or power-down signal or event” indicates power is about to be lost, not that power has been lost.

Moreover, Petitioners fail to rebut Netlist’s argument regarding Best [0018], which discloses multiple potential write-back triggers, some of which occur during normal operation (*i.e.*, not during power-down). Paper 19, 47. Best does not teach that his device performs differently depending on the write-back trigger source. Petitioners cite no teaching in Best that paragraph [0018] does not apply to a power-down situation, because no such teaching exists. Petitioners fail to rebut Netlist’s argument that a POSITA would understand Best’s volatile memory may be accessed during write-back operations such as, for example, “while awaiting a memory read or programming operation (memory write) within the slower non-volatile die,” and that the desire for high-speed, degradation-free volatile memory performance applies even during write-back operations. Paper 19, 47; Ex. 1006, [0012], [0018].¹

¹ A POSITA would further understand, for example, that changing Best’s DRAM clock frequency would degrade performance because at least 200 clock cycles must elapse before the DRAM would be operable at the new clock frequency. *See, e.g.*, Ex. 1017 at 19; 47; 53.

D. Netlist is not estopped from challenging the Best and Bonella combination

Petitioners merely cite prior arguments when asserting Netlist is estopped from challenging the Best and Bonella combination. As explained above, Petitioners have not shown estoppel applies.

V. CONCLUSION

Petitioners have not shown that collateral estoppel applies, and have not shown that Best discloses the first or second mode of operation limitations when those limitations are properly construed.

Dated: March 31, 2023

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Under the provisions of 37 C.F.R. § 42.24(c)(4) and (d), the undersigned hereby certifies that the Microsoft Office word count for the foregoing Netlist's Sur-Reply, excluding the table of contents, table of authorities, a listing of facts that are admitted, denied, or cannot be admitted or denied; certificate of service or word count; or an appendix of exhibits totals 5,589 words, which is less than the 5,600 words allowed under 37 C.F.R. § 42.24(c)(2).

Dated: March 31, 2023

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that I caused to be served on the counsel for Petitioners a true and correct copy of the foregoing Netlist's Sur-Reply, by electronic means on March 31, 2023, by delivering a copy via electronic mail to the attorneys of record for the Petitioners as follows:

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