IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SAMSUNG ELECTRONICS CO., LTD., SAMSUNG SEMICONDUCTOR, INC. and SAMSUNG ELECTRONICS AMERICA, INC.,	)	C.A. No. _____
Plaintiffs,	)	**DEMAND FOR JURY TRIAL**
v.	)	**PUBLIC VERSION**
NETLIST, INC.,	)	
Defendant.	)	

COMPLAINT FOR DECLARATORY JUDGMENT OF NON-INFRINGEMENT

Plaintiffs Samsung Electronics Co., Ltd. ("SEC"), Samsung Semiconductor, Inc. ("SSI") and Samsung Electronics America, Inc. ("SEA," and together with SEC and SSI, "Samsung") seek a declaration that Samsung does not directly or indirectly infringe United States Patent No. 12,308,087 (the "'087 patent") (Exhibit 1), either literally or under the doctrine of equivalents, as follows:

NATURE OF THE ACTION

1. This is an action for a declaratory judgment arising under the patent laws of the United States, Title 35 of the United States Code, and the Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq*.

2. This action arises out of Defendant Netlist Inc.'s ("Netlist") repeated assertions of patents against Samsung after Netlist unilaterally attempted to terminate an agreement in which Netlist granted Samsung a perpetual, paid-up, worldwide license to Netlist patents, including the '087 patent. The U.S. Patent and Trademark Office ("Patent Office")

recently invalidated, in *inter partes* reviews ("IPR") filed by Samsung, all claims of two patents related to the '087 patent, U.S. Patent Nos. 8,787,060 ("the '060 patent") and 9,318,160 ("the '160 patent"), that Netlist accused Samsung High Bandwidth Memory products ("HBM Products") of infringing. IPR2022-01428, Paper No. 48; IPR2022-01427, Paper No. 48. Netlist recently obtained the '087 patent, a continuation patent from the same patent family as the invalidated patents. Samsung seeks a declaratory judgment that it does not infringe the '087 patent.

THE PARTIES

3. Samsung Electronics Co., Ltd. is a corporation organized and existing under the laws of the Republic of Korea, with its principal place of business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Republic of Korea.

4. Samsung Semiconductor, Inc. is a corporation organized and existing under the laws of the State of California, with its principal place of business at 3655 North First Street, San Jose, California 95134.

5. Samsung Electronics America, Inc. is a corporation organized and existing under the laws of the State of New York, with its principal place of business located at 85 Challenger Road, Ridgefield Park, New Jersey 07660.

6. On information and belief, Netlist, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 175 Technology Drive, Suite 150, Irvine, California 92618.

JURISDICTION AND VENUE

7. This Court has subject matter jurisdiction over the Complaint, which asserts a claim for declaratory judgment of non-infringement, under 28 U.S.C. §§ 1331, 1338(a), and 2201(a).

8. This Court has personal jurisdiction over Netlist, a corporation organized and existing under the laws of the State of Delaware.

9. Venue is proper in this District under 28 U.S.C. § 1391(b)–(c) because Netlist is subject to personal jurisdiction in this District.

10. An immediate, real, and justiciable controversy exists between Samsung and Netlist as to whether Samsung has infringed the ’087 patent, including because Netlist attempted to assert the patent against Samsung before it even issued.

A. Infringement Notice and Samsung’s First Declaratory Judgment Action

11. Shortly after Netlist unilaterally declared that Samsung was no longer licensed to Netlist’s patent portfolio, Netlist sent to Samsung a “Notice of Infringement” letter. In that letter, Netlist asserted that “Netlist is the owner of over 100 patents and patent applications related to memory technologies,” that Samsung “no longer is licensed to any of Netlist’s portfolio of patents,” and that certain Samsung memory modules infringe several of Netlist’s patents related to certain memory modules—Load-Reduced Dual Inline Memory Modules (“LRDIMMs”) and Registered Dual Inline Memory Modules (“RDIMMs”).

12. As discussed in detail below, *see infra* ¶¶ 48–51, on October 15, 2021, Samsung filed a declaratory judgment action against Netlist in the District of Delaware. *Samsung Elecs. Co., Ltd. et al. v. Netlist, Inc.*, C.A. No. 21-1453-JLH (D. Del.) (the “Delaware I Action”), D.I. 1. Netlist moved to dismiss Samsung’s declaratory judgment claims for lack of jurisdiction. *Id.*, D.I. 11 at 3–4. The Court concluded that it had and would exercise jurisdiction over Samsung’s claims relating to three patents,[1] *id.*, D.I. 37 at 4–5, and Netlist counterclaimed for infringement of

[1] The Court dismissed Samsung’s declaratory judgment claim of non-infringement related to U.S. Patent No. 7,619,912, which had been “the subject of litigation [against Google in the

those patents, *id.*, D.I. 40. Netlist also brought Google, LLC ("Google"), Samsung's customer, into the case and asserted counterclaims against Google. *Id.*, D.I. 45.

B. Netlist's Assertion of Patents Against Samsung

13. As detailed *infra* ¶¶ 52–56, 58, on December 20, 2021, Netlist began a patent litigation campaign against Samsung in the U.S. District Court for the Eastern District of Texas. *Netlist, Inc. v. Samsung Elecs. Co., Ltd. et al.*, No. 2:21-cv-463-JRG (E.D. Tex.) (the "EDTX I Action"), D.I. 1 ¶ 36. Netlist later amended its complaint to allege that certain Samsung HBM Products infringe the '060 and '160 patents. The '087 patent at issue in this case is a continuation patent of the '060 and '160 patents. In the EDTX I Action, Netlist accused the same Samsung HBM Products at issue in this case. Netlist advanced the '060 and '160 patents against Samsung HBM Products through trial in the Eastern District of Texas, where the Texas jury rendered a verdict of infringement of the '060 and '160 patents in Netlist's favor and awarded damages. The case is currently on appeal. *Netlist, Inc. v. Samsung Elecs. Co., Ltd. at al.*, 24-2203 (Fed. Cir.).

14. Netlist later filed a second infringement suit against Samsung in the Eastern District of Texas, asserting patents that Netlist had not asserted in the EDTX I Action. *Netlist, Inc. v. Samsung Elecs. Co., Ltd. et al.*, No. 2:22-cv-293-JRG, D.I. 1 (E.D. Tex.) (the "EDTX II Action"). Netlist has also filed suit against Samsung in Germany. *Netlist, Inc. v. Samsung Elecs. Co., Ltd.*, Nos. 4c O 31/22, 4c O 45/22 (Düsseldorf Regional Court).

Northern District of California] for over a decade," in favor of the parties litigating the patent in California. Delaware I Action, D.I. 37 at 6.

C. Netlist's Patent Infringement Suits Against Other Memory Module Manufacturers and Technology Companies

15. Before Netlist's patent dispute with Samsung, Netlist began a patent litigation campaign against a competitor of Samsung, SK hynix, alleging that certain memory products infringed Netlist's patents. In total, Netlist filed six patent infringement actions against SK hynix from 2016 to 2020. *See infra* ¶ 59. Throughout its litigation campaign against SK hynix, Netlist demonstrated a pattern of asserting patents, receiving rulings of non-infringement or invalidity, and then asserting in a new action continuation patents of the non-infringed or invalid patents. *See infra* ¶ 64.

16. Further, Netlist has recently asserted patents—including the '060 and '160 patents—against Micron Technology, Inc. and its affiliates (collectively, "Micron"), which are competitors of Samsung with respect to at least certain of Samsung's memory products. *See infra* ¶ 63. Netlist also filed suit against Micron in Germany.

17. Netlist has also filed infringement suits against several technology companies in California, *see infra* ¶¶ 61–62, including against Google in the Northern District of California, *Netlist, Inc. v. Google LLC*, No. 3:090-cv-05718-RS (N.D. Cal.), against Inphi Corporation in the Central District of California, *Netlist, Inc. v. Inphi Corp.*, No. 2:09-cv-6900 (C.D. Cal. 2009), and against Smart Modular Technologies, Inc.; Diablo Technologies, Inc.; SanDisk, LLC; Smart Storage Systems, Inc.; and Smart Worldwide Holdings, Inc. in the Northern District of California, *Netlist, Inc. v. Smart Modular Technologies, Inc. et al.*, 8-13-cv-00996 (N.D. Cal. 2013). Netlist asserted infringement counterclaims against Diablo Technologies, Inc. in the Northern District of California. *Diablo Technologies, Inc. v. Netlist, Inc.*, 4:13-cv-03901 (N.D. Cal. 2013). Netlist sued Google in Germany for patent infringement.

D. Samsung's IPRs on the '060 and '160 Patents

18. On August 26, 2022, Samsung filed petitions for *inter partes* review of the '060 and '160 patents in the PTAB. IPR2022-01428; IPR2022-01427. On April 1, 2024, the PTAB issued Final Written Decisions in both IPRs, invalidating all claims of both the '060 and '160 patents. IPR2022-01427, Paper No. 48; IPR2022-01428, Paper No. 48.

19. Netlist has appealed the PTAB's Final Written Decisions on the '060 and '160 patents. *Netlist, Inc. v. Samsung Electronics Co., Ltd.*, 2024-2240, 2024-2241 (Fed. Cir.). If the Federal Circuit affirms the Final Written Decisions on the '060 and '160 patents before the Federal Circuit issues its decision in the EDTX I Action appeal, Netlist's jury verdict against Samsung on the '060 and '160 patents will be vacated.

E. Netlist's Threats of Future Infringement Actions

20. Since the dispute between Netlist and Samsung arose, Netlist has made demands that Samsung take a second license to Netlist's portfolio of patents based on Netlist's claim that it terminated the fully paid-up, worldwide patent license granted in the parties' earlier license agreement.

21. For instance, as noted above, on October 15, 2020, Netlist issued a "Notice of Infringement" to Samsung and demanded that Samsung take a second license to Netlist's patents. Specifically, Netlist demanded that "Samsung and its subsidiaries honor third-party intellectual property rights" and engage in "formal licensing discussions"—"reserv[ing] all rights and remedies" with respect to enforcing its patents against Samsung.

22. [redacted]

[redacted]

23. Netlist has also recently stated in a regulatory filing that the "memory market remains poised for significant growth driven by the industry's transition to HBM" and "Netlist is well-positioned to capitalize on this through new product development and its intellectual property portfolio." Netlist, Inc., Securities and Exchange Commission Form 8-K (May 6, 2025), https://investors.netlist.com/websites/netlist/English/3210/us-sec-filing.html?shortDesc=Current%20report%20filing&format=convpdf&secFilingId=e1eae036-68a8-4165-a279-3a75d35f1a7c (last visited May 19, 2025). Netlist has therefore stated publicly that it intends to enforce its HBM patent portfolio to "capitalize" on the growth of the market.

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24. Accordingly, as set forth herein, Netlist has asserted patents in the same patent family as the '087 patent—*i.e.*, the '060 and '160 patents—against Samsung HBM Products currently being sold and used throughout the United States, and Netlist has accused other Samsung memory products of infringing additional patents in multiple infringement actions.

25. Netlist's decision to appeal the PTAB's Final Written Decisions invalidating the '060 and '160 patents demonstrates Netlist's intent to continue asserting this family of patents, which includes the '087 patent, against Samsung HBM Products

notwithstanding the PTAB's findings of invalidity. Netlist's prosecution of the application that led to the issuance of the '087 patent and Netlist's history of asserting continuation patents in litigation after having the parent patents invalidated further suggests that Netlist's patent campaign against Samsung, including with regard to the '087 patent family and Samsung HBM Products, is not over.

26. On May 19, 2025, the day before the '087 patent issued, Netlist prematurely filed infringement suits in the Eastern District of Texas alleging that Samsung and Micron infringe the '087 patent.

27. Because this action presents an actual controversy with respect to the '087 patent, the Court may and should grant the declaratory relief sought pursuant to 28 U.S.C. § 2201 *et seq*.

BACKGROUND

F. Netlist's Extraordinary License Demand and Infringement Threats

28. On November 12, 2015, Netlist and SEC entered into a Joint Development and License Agreement (the "Agreement" or "JDLA"). The Agreement contains cross-license, joint development, and product supply provisions.

29. In the Agreement, Netlist granted SEC and its subsidiaries, including SSI and SEA, a perpetual, paid-up, worldwide, non-exclusive license to all patents owned or controlled by Netlist or any of its subsidiaries having an effective first filing date on or prior to November 12, 2020. The license extends through the expiration of the last to expire of the licensed patents.

30. SEC similarly granted Netlist and its subsidiaries a perpetual, paid-up, worldwide, non-exclusive license to all patents owned or controlled by SEC or any of its subsidiaries having an effective first filing date on or prior to November 12, 2020.

31. The Agreement required SEC to make a payment to Netlist of $8 million subject to the terms and conditions therein. SEC made this payment to Netlist, except for a portion

that was remitted as tax withholding to the Korean tax authorities, which later refunded the withheld portion to Netlist.

32. Since 2020, Netlist has taken extraordinary actions to back out of its grant of a patent license to Samsung.

33. On May 27, 2020, Netlist's Chief Licensing Officer, Marc J. Frechette, wrote to Mr. Seung Min Sung of SEC and alleged that Samsung materially breached the Agreement by "repeatedly fail[ing] to fulfill Netlist's request for NAND and DRAM products throughout the term of the Agreement" and, allegedly, by improperly deducting withholding taxes. Netlist did not allege, and has never alleged, that Samsung breached the Agreement in any way related to the patent cross-license. In the same letter—which was the first time Netlist raised its breach allegations—Mr. Frechette informed Mr. Sung that Netlist had filed a complaint in the U.S. District Court for the Central District of California with respect to the alleged breach by Samsung and provided a copy of the complaint for reference.

34. On May 28, 2020, the U.S. District Court for the Central District of California docketed Netlist's breach of contract complaint against SEC. *Netlist Inc. v. Samsung Elecs. Co., Ltd.*, No. 8:20-cv-00993-MCS (C.D. Cal.) (the "Breach Action").

35. Netlist subsequently wrote to SEC to terminate the Agreement, including the patent license to SEC and its subsidiaries. On July 15, 2020, Netlist's Chief Licensing Officer, Marc J. Frechette, wrote to Mr. Seung Min Sung of SEC and stated that "Netlist is hereby terminating, effective immediately, the Agreement including the patent license granted to Samsung . . . ."

36. One week later, on July 22, 2020, Netlist amended its complaint in the Breach Action, seeking a declaration that the license it granted Samsung, but not the license

Samsung granted Netlist, was terminated. In the Breach Action, Netlist sought monetary damages and a declaration "that Netlist has terminated the Agreement pursuant to Section 13.2 and that Samsung's licenses and rights under the agreement have ceased."

37. Netlist then issued a "Notice of Infringement" to Samsung and a demand that Samsung take a second license to Netlist's patents. Specifically, on October 15, 2020, Netlist stated that because it had terminated the Agreement, "Samsung is no longer licensed to any of Netlist's portfolio of patents." Netlist further asserted that its patents relate to "memory technologies," which includes HBM. Netlist then alleged: "Despite the termination of the Joint Development and License Agreement, Samsung continues to unlawfully utilize Netlist's innovations and to infringe Netlist's patents." Netlist concluded the letter by demanding that "Samsung and its subsidiaries honor third-party intellectual property rights" and engage in "formal licensing discussions." Netlist further stated that it "reserves all rights and remedies" with respect to the alleged infringement.

38. Netlist resumed its communications with Samsung in 2021. On February 2, 2021, Netlist's Chief Licensing Counsel, Mr. Marc J. Frechette, indicated by email that Samsung must take a second license, coupled with the demand that Netlist "be made whole" for any alleged breach asserted in the Breach Action.

39. Accordingly, Netlist seeks to double-dip, with a demand that Samsung take a second license to Netlist's patents.

40. On October 14, 2021, the court in the Breach Action issued a confidential order granting summary judgment in favor of Netlist on Netlist's Third Claim for Relief, which sought a declaration that Netlist terminated Samsung's license effective July 20, 2020. *See* Breach

Action, D.I. 186. The court also granted summary judgment in Netlist's favor that Samsung was liable for certain alleged breaches of other provisions in the Agreement. *See id.*

41. Beginning on December 1, 2021, the court in the Breach Action held a jury trial on damages for one of the alleged breaches, the alleged failure to fulfill Netlist's orders for NAND and DRAM products. On December 3, 2021, the jury returned a verdict in Samsung's favor, finding that Netlist failed to prove that it suffered any damages for this alleged breach. *See id.*, D.I. 276. The court in the Breach Action concluded that Netlist was not entitled to damages for the remaining alleged breach (the withholding of taxes) as a matter of law and awarded Netlist nominal damages of $1.00 for each alleged breach (for a total of $2.00). *Id.*, D.I. 306, ¶¶ 1–2.

42. Despite the district court awarding only nominal damages for Samsung's alleged breaches, Netlist issued a press release claiming to be "very pleased with the overall outcome of the case as it confirmed that Samsung no longer has a valid license to Netlist patents and therefore requires a licensing agreement." Netlist Provides Update on Action in Federal Court Against Samsung, https://investors.netlist.com/websites/netlist/English/2120/us-press-release.html?airportNewsID=a661884d-0025-46ea-a055-bae8d8e4570b (last visited May 19, 2025).

43. SEC challenged the summary judgment ruling in the Breach Action on appeal to the Ninth Circuit. *Netlist Inc. v. Samsung Elecs. Co., Ltd.*, Nos. 22-55209 & 22-55247 (9th Cir.). SEC maintained that it did not breach the Agreement, that the Agreement has not been terminated, and that SEC continues to hold a paid-up, worldwide, non-exclusive license to Netlist's patents, including the '087 patent.

44. The Ninth Circuit agreed that patent cross-licensing was a distinct aim of the JDLA, independent of the joint development project: "[T]he JDLA has two stated purposes:

(1) developing a new NVDIMM-P product (i.e., the [joint development project]), and (2) patent cross-licensing. The title and preamble of the agreement exclusively reference these two topics, and each substantive section corresponds entirely to one of the two goals." Breach Action, D.I. 192, Ex. A at 3–4. The Ninth Circuit remanded the case to (a) resolve an ambiguity in the supply provision in Section 6.2 of the JDLA and (b) determine whether any breach of that provision by Samsung was material such that Netlist could terminate the agreement. Following the Ninth Circuit's remand, a jury trial was held. On May 17, 2024, the jury issued its verdict, adopting Netlist's proffered meaning of the disputed provision and finding that Samsung's breach of that provision was material. *See id.*, D.I. 556.

45. In post-trial briefing, Samsung requested a new trial. The district court granted Samsung's motion on account of implied juror bias. *Id.*, D.I. 640 at 16.

46. On March 24, 2025, the district court held a new trial, and the jury again adopted Netlist's proffered meaning of the disputed provision. *See id.*, D.I. 769. Samsung is challenging the jury verdict in post-trial motions. If those challenges are unsuccessful, Samsung intends to appeal the verdict and judgment to the United States Court of Appeals for the Ninth Circuit.

G. Netlist's Patent Infringement Lawsuits

47. Over the past decade, Netlist has pursued a litigation campaign against Samsung and other suppliers of memory modules, component suppliers, and users of memory modules (aside from Samsung). During this campaign, Netlist has alleged infringement of numerous patents, including patents related to the '087 patent, and accused several memory products, including HBM Products.

1. Netlist's Lawsuits Against Samsung

48. As noted above, on October 15, 2021, Samsung filed a declaratory judgment action against Netlist in this District for a declaration that certain Samsung LRDIMM and RDIMM products did not infringe four Netlist patents. Delaware I Action, D.I. 1. Netlist moved to dismiss Samsung's declaratory judgment claims, arguing that no case or controversy existed because there was no imminent threat of Netlist filing suit against Samsung on the patents-in-suit. *Id.*, D.I. 11 at 3–4. Samsung later amended its Complaint to add additional Netlist patents, *id.*, D.I. 14, and Netlist moved to dismiss Samsung's First Amended Complaint, *id.*, D.I. 24.

49. On August 1, 2022, the Court in the Delaware I Action denied-in-part and granted-in-part Netlist's motion to dismiss. The Court found that it had jurisdiction on U.S. Patent Nos. 10,217,523 (the "'523 patent"), 9,858,218 (the "'218 patent"), and 10,474,595 (the "'595 patent"), three of the four patents included in the original declaratory judgement complaint because, once the Central District of California granted summary judgment in favor of Netlist in the Breach Action, "Netlist's threats became more immediate." *Id.*, D.I. 37 at 4. However, the Court dismissed, *inter alia*, Samsung's declaratory judgment claim of non-infringement related to U.S. Patent No. 7,619,912 (the "'912 patent.") *Id.*, D.I. 37. The Court reasoned that the patent had been "the subject of litigation [against Google in the Northern District of California] for over a decade," so Samsung's declaratory judgment claim regarding that patent in Delaware was not "an efficient use of judicial resources." *Id.* at 6. In reaching its decision, the Court accepted Netlist's argument that Samsung's "collateral action [in Delaware] should be dismissed in favor of the much more advanced Northern District case." *Id*. at 3; *see also id*., D.I. 11 at 3–5; D.I. 28 at 1–3, 8–10 (Netlist arguing that litigation on the '912 patent should proceed in the Northern District of California).

50. Following the Court's order in the Delaware I Action, Netlist counterclaimed against Samsung for infringement of the '523, '218, and '595 patents. Netlist also sought treble damages based on Samsung's alleged willful infringement. *Id*., D.I. 45 ¶ 101. Netlist subsequently expanded its infringement allegations to include additional Samsung products. *Id*., D.I. 132-1, Ex. 16 at 2.

51. Netlist later asserted counterclaims against Google in the Delaware I Action for infringement of the '523, '218, and '595 patents. *Id.*, D.I. 45. Netlist's infringement allegations relate to Google's use of Samsung memory products.

52. On December 20, 2021, Netlist filed a lawsuit against SEC, SSI, and SEA in the Eastern District of Texas alleging direct and indirect infringement of three Netlist patents. EDTX I Action, D.I. 1. Netlist alleged infringement based on Samsung's making, selling, using, and/or importing of certain memory modules. *See id.* ¶¶ 40, 53, 68.

53. Netlist filed the EDTX I Action the same day that it moved to dismiss the Delaware I Action based on, *inter alia*, an alleged lack of any case or controversy over Samsung's declaratory judgment claims. *See* Delaware I Action, D.I. 11 at 3 (arguing that the case did not involve a "substantial controversy of sufficient immediacy").

54. Netlist's Complaint in the EDTX I Action stated that Netlist intended to assert against Samsung another Netlist patent, U.S. Patent No. 11,232,054 (the "'054 Patent"), once it issued from the Patent Office. *See* EDTX I Action, D.I. 1 ¶ 32. The '054 patent issued on January 25, 2022, and Netlist subsequently amended its Complaint to include the newly issued patent. *Id.*, D.I. 23.

55. Netlist's Amended Complaint also added two additional patents: the '060 and '160 patents. *Id.* Netlist alleged that Samsung HBM Products infringe those patents. *Id.*, D.I. 23 ¶¶ 118, 128.

56. Netlist also filed a second suit against Samsung in Texas. The same day the court in the Delaware I Action dismissed Samsung's declaratory judgment claims involving the '912 patent—reasoning that litigating the patent in the Northern District of California would be the most efficient use of judicial resources—Netlist filed suit against Samsung on the '912 patent in the Eastern District of Texas. *See* EDTX II Action, D.I. 1. Netlist later amended its Complaint to include three additional patents. Netlist alleged that Samsung infringed its patents by making, using, selling, offering to sell, and/or importing certain memory modules. *Id.* ¶ 34.

57. Netlist also filed suit against Samsung in Germany, asserting two patents against Samsung's memory modules. *Netlist, Inc. v. Samsung Elecs. Co., Ltd.*, Nos. 4c O 31/22, 4c O 45/22 (Düsseldorf Regional Court).

58. On May 19, 2025, Netlist prematurely filed an infringement suit against Samsung on the '087 patent before the patent had issued. *Netlist, Inc. v. Samsung Elecs. Co., Ltd. et al.*, No. 2:25-cv-00553 (E.D. Tex.). In the complaint, Netlist alleges that Samsung "directly infringed and [is] currently infringing at least one of the approved claims of the '087 Patent," with respect to "any Samsung HBM2, HBM2E, HMB3, HBM3E and newer products (e.g., HBM4) made, sold, used, offered for sale, and/or imported into the United States by Samsung." *Id.*, D.I. 1 ¶¶ 23, 27.

2. Netlist's Lawsuits Against Third Parties

59. Netlist has also pursued a litigation campaign against other suppliers of memory products, component suppliers, and users of memory products. For instance, Netlist engaged in a years-long, multi-forum litigation campaign against SK hynix, a competitor of

Samsung. Between 2016 and 2020, Netlist filed six patent infringement suits against SK hynix, the first two in the Central District of California. *See Netlist, Inc. v. SK hynix America Inc. et al.*, No. 8:16-cv-1605 (C.D. Cal. 2016); *Netlist, Inc. v. SK hynix, Inc. et al.*, No. 8:17-cv-1030 (C.D. Cal. 2017). Netlist also filed two complaints against SK hynix with the International Trade Commission. *See In re Certain Memory Modules and Components Thereof, and Products Containing the Same*, No. 337-TA-1023 (U.S.I.T.C. 2016); *In re Certain Memory Modules and Components Therefore*, No. 337-TA-1089 (U.S.I.T.C. 2017). Finally, Netlist filed two infringement suits against SK hynix in the Western District of Texas. *See Netlist, Inc. v. SK hynix Inc. et al.*, No. 6:20-cv-194 (W.D. Tex. 2020); *Netlist, Inc. v. SK hynix America. et al.*, No. 6:20-cv-525 (W.D. Tex. 2020).

60. In these suits, Netlist accused certain SK hynix memory modules of infringing numerous Netlist patents.

61. Netlist has also accused Google of infringing the ’912 patent. *See Netlist, Inc. v. Google Inc.*, No. 3:09-cv-05718-RS (N.D. Cal.). Netlist seeks an injunction in that case, which would preclude Google from using Samsung LRDIMM and RDIMM memory modules. Netlist also seeks an injunction against Google in the Delaware I Action. D.I. 127 at 11.

62. Netlist has also asserted infringement claims against Inphi Corporation, *see Netlist, Inc. v. Inphi Corp.*, No. 2:09-cv-6900 (C.D. Cal. 2009), and infringement counterclaims against Diablo Technologies, Inc., *Diablo Technologies, Inc. v. Netlist, Inc.*, 4-13-cv-03901 (N.D. Cal. 2013). Netlist also filed an infringement suit against Smart Modular Technologies, Inc.; Diablo Technologies, Inc.; SanDisk, LLC; Smart Storage Systems, Inc.; and Smart Worldwide Holdings, Inc. *Netlist, Inc. v. Smart Modular Technologies, Inc. et al.*, 8-13-cv-00996 (N.D. Cal. 2013).

63. As noted above, Netlist has also recently asserted patents in multiple litigations in Texas against Micron, which is a competitor of Samsung with respect to at least certain of the memory products, including HBM. *See Netlist, Inc. v. Micron Tech., Inc. et al.*, No. 6:21-cv-430 (W.D. Tex.); *Netlist, Inc. v. Micron Tech., Inc. et al.*, No. 6:21-cv-431 (W.D. Tex.); *Netlist, Inc. v. Micron Tech., Inc. et al.*, No. 2:22-cv-203-JRG (E.D. Tex.); *Netlist, Inc. v. Micron Tech., Inc. et al.*, No. 2:22-cv-294 (E.D. Tex.). As with Samsung, Netlist filed suit against Micron for infringement of the '087 patent before it issued. *Netlist, Inc. v. Micron Tech., Inc. et al.*, No. 2:25-cv-552 (E.D. Tex.).

64. As already noted, throughout its litigation campaigns, Netlist has demonstrated a pattern of asserting patents, having IPRs instituted or receiving rulings of non-infringement or invalidity, and then asserting continuations of the non-infringed or invalid patents. For example, Netlist asserted the '837 patent against SK hynix in district court and at the ITC. *Netlist, Inc. v. SK hynix Inc.*, No. 8:16-cv-01605 (C.D. Cal. Aug. 31, 2016), D.I. 1; *In re Certain Memory Modules*, No. 337-TA-1023 (U.S.I.T.C. Sept. 1, 2016), Doc. No. 589609. Shortly before the PTAB determined that certain claims of the '837 patent were unpatentable (and the ITC determined that SK hynix did not infringe the patent), *see* IPR2017-00548, Paper No. 25 (May 3, 2018); *In re Certain Memory Modules*, No. 337-TA-1023, 2017 WL 11569255, at *135 (Nov. 14, 2017), Netlist asserted a continuation of the '837 patent against SK hynix in district court and at the ITC. *Netlist, Inc. v. SK hynix Inc.*, No. 8:17-cv-1030 (C.D. Cal.), D.I. 1; *In re Certain Memory Modules*, No. 337-TA-1089 (U.S.I.T.C. Oct. 31, 2017), Doc. No. 627249. The PTAB subsequently determined that all claims of that patent were unpatentable, *see* IPR2018-00303, Paper No. 42 (Mar. 21, 2019), so Netlist asserted two additional continuation patents in the same patent family against SK hynix, *Netlist, Inc. v. SK hynix Inc.*, No. 6:20-cv-00194 (W.D. Tex. June 9, 2020), D.I. 33, essentially seeking a third bite at the apple.

H. *Inter Partes* Review of the ’060 and ’160 Patents

65. On August 26, 2022, Samsung filed petitions for *inter partes* review in the PTAB of the ’060 and ’160 patents, which Netlist asserted against Samsung in the EDTX I Action. IPR2022-01428; IPR2022-01427. On April 1, 2024, the PTAB issued Final Written Decisions in both IPRs, invalidating all claims of the ’060 and ’160 patents. IPR2022-01428, Paper No. 48; IPR2022-01427, Paper No. 48. Netlist has appealed the PTAB’s Final Written Decisions on the ’060 and ’160 patents. *Netlist, Inc. v. Samsung Electronics Co., Ltd.*, 2024-2240, 2024-2241 (Fed. Cir.). Those appeals remain pending.

I. Overview of the ’087 Patent

66. The ’087 patent issued on May 20, 2025, from U.S. Patent Application No. 17/694,649, which was filed on March 14, 2022. The ’087 patent claims priority to a chain of continuation applications, including the applications leading to issuance of the aforementioned ’060 and ’160 patents. The first full patent application was U.S. Patent Application No. 13/288,850, which was filed on November 3, 2011, and claimed priority to a provisional application that was filed on November 3, 2010.

67. During prosecution, the examiner rejected the then-pending claim 1 and 2 of the ’087 patent for double patenting over the claims of the ’060 and ’160 patents. Netlist filed a terminal disclaimer on April 5, 2023, thereby disclaiming any statutory term that would extend beyond the expiration date of multiple patents, including the ’060 and ’160 patents.

68. The ’087 patent describes a “memory package having stacked array dies and methods for reducing driver load in the memory package.” Ex. 1 (’087 Patent) at [0002]. According to the patent, “[m]emory modules may include a number of memory packages,” and “[e]ach memory package may itself include a number of array dies that are packaged together.” *Id.* at [0003]. A “driver” is used for “driving signals” between dies, such as “driver 134” in

Figure 1A. *Id.* at [0004]. The ’087 patent states that “a load exists on each of the drivers 134, 140, 184, and 186 by virtue of the drivers being in electrical communication with the corresponding die interconnects and the corresponding circuitry of the array dies.” *Id.* at [0007]. The ’087 patent continues to state that “to drive a signal along a die interconnect, a driver typically must be large enough to overcome the load on the driver,” but “generally a larger driver not only consumes more space on the control die, but also consumes more power.” *Id.*

69. The ’087 patent explains that Figure 2, which is reproduced below, “schematically illustrates an example embodiment of a memory package 200 in accordance with the present disclosure.” *Id.* at [0025], Fig. 2. The patent describes memory package 200 by stating that it “may include a plurality of array dies 210 (*e.g.*, array dies 210a-210d),” “a plurality of die interconnects 220 (*e.g.*, die interconnects 220a, 220b),” and “a control die 230” that “may include a number of data conduits 232.” *Id.* at [0025], [0028], [0031], [0032].

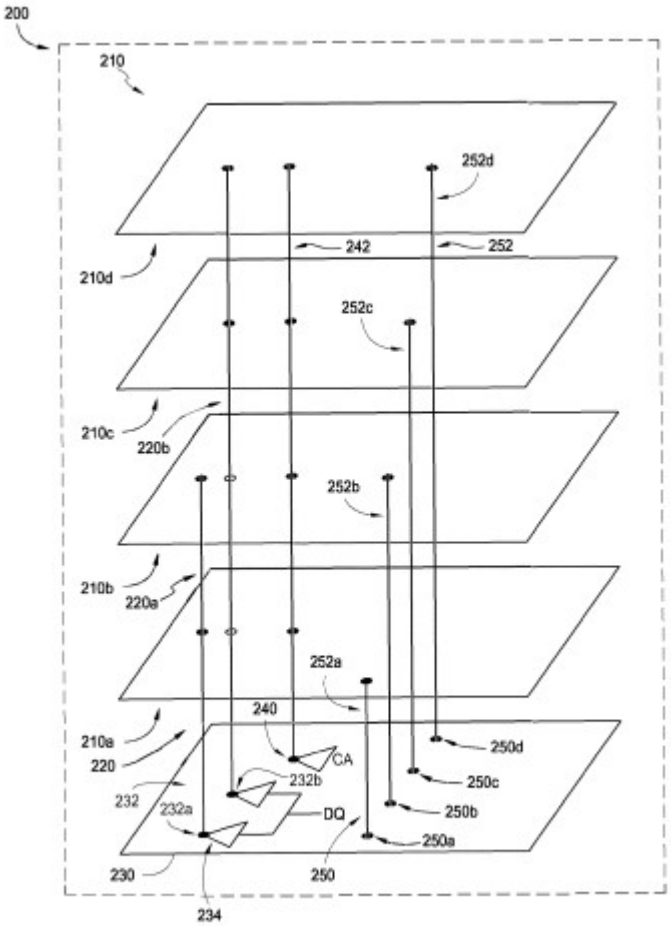

FIG. 2

70. For at least the reasons explained in Count I, the Samsung HBM Products do not infringe the claims of the ’087 patent.

COUNT I
(Declaration of Non-Infringement of the ’087 Patent)

71. Samsung restates and incorporates by reference the preceding paragraphs as if fully set forth herein.

72. The Patent Office issued the ’087 patent, titled “Memory Package Having Stacked Array Dies and Reduced Driver Load,” on May 20, 2025. On information and belief, Netlist claims to own all rights, title, and interest in the ’087 patent. A true and correct copy of the ’087 patent is attached hereto as Exhibit 1.

73. The ’087 patent has six independent claims: 1, 9, 13, 20, 23, and 24. For example, claim 1 reads as follows:

Element	Claim Language
preamble	1. A dynamic random access memory (DRAM) package, comprising:
(a)	stacked DRAM dies including at least a first plurality of DRAM dies and a second plurality of DRAM dies, each DRAM die of the stacked DRAM dies including C/A ports, data ports and DRAM memory cells, wherein each DRAM die is configurable to transfer data between the data ports and the DRAM memory cells;
(b)	terminals including command and/or address (C/A) terminals and data terminals, wherein the DRAM package is configured to receive C/A signals via the C/A terminals and is further configured to receive or output data signals via the data terminals in response to the (C/A) signals, wherein the DRAM package is configured to output first data signals in response to a first set of C/A signals associated with a memory read operation and to receive second data signals in response to a second set of C/A signals associated with a memory write operation;
(c)	die interconnects including C/A interconnects and data interconnects, the C/A interconnects including at least first C/A interconnects and second C/A interconnects, the first C/A interconnects configured to conduct the first set of C/A signals and the second set of C/A signals, the data interconnects including at least first data interconnects and second data interconnects, the first data interconnects configured to conduct the first data signals and the second data signals, each of the die interconnects including one or more through silicon vias (TSVs) in one or more DRAM dies in the stacked DRAM dies and configured to conduct signals to and/or from the one or more DRAM dies in the stacked DRAM dies through the one or more TSVs;
(d)	a control die coupled between the terminals and the stacked DRAM dies, the control die including conduits the conduits including C/A conduits and data conduits, the C/A conduits including at least first C/A conduits coupled to respective ones of the first C/A interconnects and second C/A conduits coupled to respective ones of the second C/A interconnects, the data conduits including at least first data conduits coupled to respective ones of the first data interconnects and second data conduits coupled to respective ones of the second data interconnects;
(e)	wherein a first C/A interconnect of the first C/A interconnects is in electrical communication with corresponding C/A ports on the first plurality of DRAM dies and not in electrical communication with any C/A port on any of the second plurality of DRAM dies;

Element	Claim Language
(f)	wherein a second C/A interconnect of the second C/A interconnects is in electrical communication with corresponding C/A ports on the second plurality of DRAM dies and not in electrical communication with any C/A port on any of the first plurality of DRAM dies;
(g)	wherein a first data interconnect of the first data interconnects is in electrical communication with corresponding data ports on the first plurality of DRAM dies and not in electrical communication with any data port on any of the second plurality of DRAM dies, each of the first data interconnects including a first respective set of TSVs, the first respective set of TSVs including a TSV in each DRAM die of the first plurality of DRAM dies and at least one TSV in at least one DRAM die of the second plurality of DRAM dies, wherein the TSV in the each DRAM die of the first plurality of DRAM dies is in electrical communication with a corresponding data port on the each DRAM die, and wherein the at least one TSV in the at least one DRAM die of the second plurality of DRAM dies is not in electrical communication with any data port on the at least one DRAM die;
(h)	wherein a second data interconnect of the second data interconnects is in electrical communication with corresponding data ports on the second plurality of DRAM dies and not in electrical communication with any data port on any of the first plurality of DRAM dies;
(i)	wherein a first conduit of the first data conduits is coupled between the first data interconnect and a first data terminal of the data terminals, and a second conduit of the second data conduits is coupled between the second data interconnect and the first data terminal;
(j)	wherein the control die further includes control logic configurable to control respective states of the first and second conduits in response to one or more C/A signals received via one or more of the C/A terminals, wherein the one or more C/A signals do not include any chip select signal;
(k)	wherein the die interconnects further include first unidirectional interconnects configured to conduct signals from one or more DRAM dies of the stacked DRAM dies to the control die and not configured to conduct any signal from the control die to any of the stacked DRAM dies;
(l)	wherein the die interconnects further include second unidirectional interconnects configured to conduct signals from the control die to one or more DRAM dies of the stacked DRAM dies and not configured conduct any signal from any of the stacked DRAM dies to the control die;
(m)	wherein the control die is configured to receive signals from one or more DRAM dies of the stacked DRAM dies via the first unidirectional interconnects and is not configured to drive any signal to any of the stacked DRAM dies via any of the first unidirectional interconnects;

Element	Claim Language
(n)	wherein the control die is configured to drive signals to one or more DRAM dies of the stacked DRAM dies via the second unidirectional interconnects and is not configured to receive any signal from any of the stacked DRAM dies via any of the second unidirectional interconnects; and
(o)	wherein the control die is configured to, in response to the first set of C/A signals, receive first signals associated with the memory read operation from a DRAM die of the stacked DRAM dies via the first unidirectional interconnects, and in response to the second set of C/A signals, drive second signals associated with the memory write operation to one or more DRAM dies of the stacked DRAM dies via the second unidirectional interconnects.

74. Samsung has not directly or indirectly infringed any claim of the ’087 patent, either literally or under the doctrine of equivalents, at least because the Samsung HBM Products do not employ, incorporate, or otherwise make use of all of the limitations of the claim of the ’087 patent.

75. For example, claims 1, 9, 13, 20, 23, and 24 require “unidirectional interconnects” (claims 1, 9, 13, 20, and 23) or “unidirectional conduit[s]” (claim 24). Samsung HBM Products do not include “unidirectional interconnects” or “unidirectional conduits.” Claim limitations 1(k)-(o) provide additional requirements for the “unidirectional interconnect,” including, among other things, that “first unidirectional interconnects [are] configured to conduct signals from one or more DRAM dies of the stacked DRAM dies to the control die and not configured to conduct any signal from the control die to any of the stacked DRAM dies” and “second unidirectional interconnects [are] configured to conduct signals from the control die to one or more DRAM dies of the stacked DRAM dies and not configured conduct any signal from any of the stacked DRAM dies to the control die.” The Samsung HBM products do not include through-silicon vias (“TSVs”) that satisfy all claim limitations related to “unidirectional interconnect.” [redacted]

[redacted] This means the Samsung HBM products do not include at least the "second unidirectional interconnects," which may only "conduct signals from the control die to the one or more DRAM dies" and may not "conduct any signal from any of the stacked DRAM dies to the control die." Thus, the Samsung HBM Products do not meet all of the limitations of any claims of the '087 patent.

76. As another example, claim 1 requires that the "control die . . . is configured to receive signals from one or more DRAM dies of the stacked DRAM dies via the first unidirectional interconnects and is not configured to drive any signal to any of the stacked DRAM dies via any of the first unidirectional interconnects" and "configured to drive signals to one or more DRAM dies of the stacked DRAM dies via the second unidirectional interconnects and is not configured to receive any signal from any of the stacked DRAM dies via any of the second unidirectional interconnects." Independent claims 13, 20, and 23 include similar limitations directed to a "control die." The Samsung HBM Products do not include a "control die" that meets the requirements of claims 1, 13, 20, and 23. [redacted] For this additional reason, the Samsung HBM Products do not meet the limitations of at least claims 1–8 and 13–23.

77. The Samsung HBM Products do not infringe any of claims 2–8, 10–12, 14–19, 12–22, and 25–28 at least because these claims depend directly or indirectly from one of claims 1, 9, 13, 20, 23, and 24.

78. Samsung, its customers, and its end users are not liable for infringement of the ’087 patent for any Samsung HBM Products made, imported, or sold under license from Netlist.

79. A substantial, immediate, and real controversy exists between Samsung and Netlist regarding whether Samsung or its customers or end users infringe the ’087 patent by making, using, selling, and/or offering for sale the Samsung HBM Products in the United States, or by importing the Samsung HBM Products into the United States. A judicial declaration is necessary to determine the parties’ respective rights regarding the ’087 patent.

80. Samsung seeks a judgment declaring that Samsung and its customers and end users do not infringe the ’087 patent, either literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Samsung HBM Products in the United States, or by importing the Samsung HBM Products into the United States, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. § 271(b)–(c).

JURY DEMAND

Samsung demands a jury trial on all issues and claims so triable.

PRAYER FOR RELIEF

WHEREFORE, Samsung prays for judgment and relief as follows:

(a) Declare that Samsung does not directly or indirectly infringe the ’087 patent, either literally or under the doctrine of equivalents, and that it is not liable for damages or injunctive relief based on any claim in the ’087 patent;

(b) Declare that judgment be entered in favor of Samsung and against Netlist on Samsung’s claim;

(c) Find that this is an exceptional case under 35 U.S.C. § 285;

(d) Award Samsung pre-judgment and post-judgment interest;

(e) Award Samsung its costs and attorneys' fees in connection with this action; and

(f) Such further and additional relief as the Court deems just and proper.

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