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8 UNITED STATES DISTRICT COURT
9 CENTRAL DISTRICT OF CALIFORNIA
10 SOUTHERN DIVISION
11

12 Netlist, Inc.,
13

14 *Plaintiff,*

15 vs.

16 SK hynix Inc., SK hynix America Inc.
17 and SK hynix memory solutions Inc.,
18

19 *Defendants.*

)
) Case No. 8:17-cv-1030
)
)

)
) **COMPLAINT FOR PATENT**
) **INFRINGEMENT**
)

) **DEMAND FOR JURY TRIAL**
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1 Plaintiff Netlist, Inc. (“Netlist”) brings this action for patent infringement
2 against Defendants SK hynix, Inc., SK hynix America Inc. and SK hynix Memory
3 Solutions, Inc. (collectively “Hynix” or “Defendants”) and alleges as follows:

4 **NATURE OF THE ACTION**

5 1. This is a civil action for patent infringement under the patent laws of the
6 United States relating to patents, including 35 U.S.C. § 281.

7 **THE PARTIES**

8 2. Plaintiff Netlist is a corporation organized and existing under the laws of
9 the State of Delaware, having a principal place of business at 175 Technology Drive,
10 Suite 150, Irvine, California 92618.

11 3. On information and belief, Defendant SK hynix Inc. is a corporation
12 organized and existing under the laws of the Republic of Korea (“Korea”), having a
13 principal place of business at 2091, Gyeongchung-daero, Bubal-eub, Icheon-si,
14 Gyeonggi-do, Korea. On information and belief, SK hynix Inc. is the worldwide
15 parent corporation for Defendants SK hynix America Inc. and SK hynix memory
16 solutions Inc., and is responsible either directly or indirectly through subsidiaries for
17 their infringing activities.

18 4. On information and belief, Defendant SK hynix America Inc. is a
19 corporation organized and existing under the laws of California, having a principal
20 place of business at 3101 North 1st Street, San Jose, CA 95134, United States. On
21 information and belief, Defendant SK hynix America Inc. is a wholly owned
22 subsidiary of SK hynix Inc. and is a United States operating company for SK hynix
23 Inc. On information and belief, Defendant SK hynix America Inc. provides support
24 for sales, technical, and customer/client relationship operations.

25 5. On information and belief, Defendant SK hynix memory solutions Inc. is
26 a corporation organized and existing under the laws of California, having a principal
27 place of business at 3103 North 1st Street, San Jose, CA 95134. On information and
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1 belief, Defendant SK hynix memory solutions Inc. is a wholly owned subsidiary of
2 SK hynix Inc. and is a United States operating company for SK hynix Inc. On
3 information and belief, Defendant SK hynix memory solutions Inc. provides to its
4 customers controller hardware and flash management systems and firmware for
5 devices.

6 **JURISDICTION AND VENUE**

7 6. This court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331
8 and 1338(a) and pursuant to the patent laws of the United States of America, 35
9 U.S.C. § 101, et seq.

10 7. This Court has personal jurisdiction over Defendants because, on
11 information and belief, they have regularly and systematically transacted business
12 within the State of California and this District. In addition, this Court has personal
13 jurisdiction over Defendants because, on information and belief, this lawsuit arises
14 out of Defendants' infringing activities, including without limitation their making,
15 using, selling and/or offering to sell infringing products within the State of California
16 and this District. This Court also has personal jurisdiction over Defendants because,
17 on information and belief, Defendants have made, used, sold and/or offered for sale
18 their infringing products and placed such infringing products in the stream of
19 interstate commerce with the expectation that such infringing products would be
20 made, used, sold and/or offered for sale within the State of California and this
21 District. Finally, this Court has personal jurisdiction over Defendants SK hynix
22 America Inc. and SK hynix memory solutions Inc. because they are corporations duly
23 incorporated under the laws of California and have offices in California.

24 8. Venue is proper in the Central District of California pursuant to the
25 provisions of 28 U.S.C. § 1400(b). On information and belief, Defendants have
26 regular and established places of business in this District and conduct business in this
27 District directly and/or through third parties or agents. On information and belief,
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1 Defendants have committed acts of infringement in this District by, without
2 limitation, selling and/or offering to sell the infringing products. Furthermore, Netlist
3 is headquartered and has its principal place of business in this District, sells products
4 in this District, and has been harmed by Defendants' conduct, business transactions
5 and sales in this District.

6 **FACTUAL BACKGROUND**

7 9. Since its founding in 2000, Netlist has been a leading innovator in high-
8 performance memory module technologies. Netlist designs and manufactures a wide
9 variety of high-performance products for the cloud computing, virtualization and
10 high-performance computing (HPC) markets. Netlist's technology enables users to
11 derive useful information from vast amounts of data in a shorter period of time.
12 These capabilities will become increasingly valuable as the volume of data continues
13 to dramatically increase.

14 10. The technologies disclosed and claimed in the asserted patents relate
15 generally to memory modules. Generally speaking, a memory module is a circuit
16 board that contains, among other important components, DRAM integrated circuits.
17 A memory module is typically installed into a memory slot on a computer
18 motherboard and serves as memory for that computer system. United States Patent
19 No. 9,606,907 ("the '907 patent") relates to memory modules of a computer system,
20 and more specifically to devices and methods for improving the performance, the
21 memory capacity, or both, of memory modules such as dual in-line memory modules,
22 or DIMMs. United States Patent No. 9,535,623 ("the '623 patent") relates to memory
23 modules that operate in two distinct modes.

24 11. Server memory modules historically have been standardized by the
25 standard-setting body for the microelectronics industry, JEDEC (Joint Electron
26 Device Engineering Council). RDIMM is a JEDEC-standard memory module, which
27 was first standardized in the mid-1990s. LRDIMM is a different type of memory
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1 module governed by other JEDEC standards. Specifically, JEDEC approved the
2 initial versions of the DDR4 LRDIMM standards for the two primary components,
3 the DDR4 RCD and DDR4 DB, in August of 2016 and November of 2016,
4 respectively.

5 12. Netlist has in all respects acted in a manner consistent with the JEDEC
6 Patent Policy, as set forth in the JEDEC Manual of Organization and Procedure,
7 which states in relevant part that “[a] license will be offered, to applicants desiring to
8 utilize the license for the purpose of implementing the JEDEC Standard under
9 reasonable terms and conditions that are free of any unfair discrimination... .” Netlist
10 contacted Hynix in 2015 regarding its need for a license to Netlist’s patent portfolio
11 and has since been negotiating in good faith to reach a resolution. In the course of
12 these negotiations, Netlist offered to license the direct parents of the asserted patents
13 to Hynix under reasonable terms and conditions that are free of any unfair
14 discrimination over a year before bringing this action. Hynix, however, has from the
15 beginning taken unreasonable positions and refused to attribute any meaningful value
16 to Netlist’s fundamental patent portfolio. Hynix has also launched extensive
17 collateral attacks on Netlist and its intellectual property, filing a dozen IPRs on a
18 number of Netlist’s patents. As a result, the parties have made no progress towards
19 resolution despite multiple substantive exchanges, over a year of negotiation, and
20 Netlist’s multiple offers to license.

21 13. In June 2016, consistent with its obligations to JEDEC, Netlist sent
22 Hynix a formal letter outlining Netlist’s offer to license Netlist’s patent portfolio for
23 DDR4 RDIMMs and LRDIMMs on reasonable terms and conditions that are free of
24 any unfair discrimination. Netlist again identified the direct parents of the asserted
25 patents, and informed Hynix that Hynix DDR4 RDIMMs and LRDIMMs practice
26 these patents and additional SEP assets, which are owned by Netlist but practiced
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1 without authorization by Hynix. Hynix did not accept Netlist's reasonable, good-faith
2 offers.

3 14. On August 31, 2016, Netlist filed suit against Defendants in the Central
4 District of California, alleging infringement of U.S. Patent Nos. 8,756,364,
5 8,516,185, 8,001,434, 8,359,501, 8,689,064, and 8,489,837. *Netlist, Inc. v. SK hynix*
6 *Inc. et al.*, Case No. 8:16-cv-1605 Dkt. No. 1, Compl. (C.D. Cal. Aug. 31, 2016).
7 U.S. Patent No. 8,516,185 is related to and shares a specification with U.S. Patent
8 No. 9,606,907. U.S. Patent No. 8,489,837 is related to and shares a specification with
9 U.S. Patent No. 9,535,623.

10 15. On September 1, 2016 Netlist filed a Complaint at the International Trade
11 Commission, alleging a violation of Section 337 of the Tariff act of 1930, as
12 amended, 19 U.S.C. § 1337, by Defendants related to the infringement of U.S. Patent
13 Nos. 8,756,364, 8,516,185, 8,001,434, 8,359,501, 8,689,064, and 8,489,837. On
14 September 30, 2016, the International Trade Commission instituted an investigation
15 as to all six patents as Investigation No. 337-TA-1023, *Certain Memory Modules and*
16 *Components thereof, and Products Containing Same*. Two of subject patents of the
17 Inv. No. 337-TA-1023, U.S. Patent No. 8,516,185 and U.S. Patent No. 8,489,837, are
18 the direct parents of the two patents asserted in this Complaint: U.S. Patent No.
19 9,606,907 and U.S. Patent No. 9,535,623, respectively.

20 16. Each of the Defendants has been aware of the parents of the asserted
21 patents since at least January 2016 when Netlist presented to the Defendants detailed
22 claim charts related to the parents of each of the asserted patents.

23 **COUNT ONE**

24 **INFRINGEMENT OF UNITED STATES PATENT NO. 9,606,907**

25 17. Netlist incorporates by reference the preceding allegations of its
26 Complaint.
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18. The '907 patent, entitled "Memory module with distributed data buffers and method of operation," issued on March 28, 2017 to inventors Hyun Lee and Jayesh R. Bhakta. The '907 patent issued from United States Patent Application No. 13/970,606 filed on August 20, 2013. The '907 Patent is a child of Patent No. 8,516,185 ("the '185 patent"). Netlist owns by assignment the entire right, title and interest in and to the '907 patent as well as the '185 patent. Attached hereto as Exhibit 1 is a true and correct copy of the '907 patent.

19. On information and belief, Defendants directly infringed and are currently infringing at least the independent and dependent claims of the '907 patent identified in the chart below ("the '907 Asserted Claims") by, among other things, making, using, selling, offering to sell, and/or importing within this District and elsewhere in the United States, without authority, Hynix DDR4 LRDIMMs (Load-Reduced Dual In-Line Memory Modules), including but not limited to the exemplary Hynix DDR4 LRDIMM modules identified in the Hynix Q1 2017 Databook attached as Exhibit 2 (the "accused LRDIMM products").

'907 Independent Claims	'907 Dependent Claims
1	2, 3, 4, 5, 6, 7, 8, 10, 12, 14, and 15
16	17, 18, 19, 20, 21, 22, 24, 25, 27, and 29
30	31, 32, 33, 34, 35, 38, and 42
43	44, 45, 47, 48, 50, and 52
58	N/A

20. An exemplary claim chart comparing the asserted independent claims of the '907 patent to an exemplary one of the accused LRDIMM products (part number HMA84GL7AMR4N-TF TE AB) is attached as Exhibit 3.

1 21. On information and belief, each of Defendants has been aware of the
2 '185 patent, the parent of the '907 patent, and the patents' identical disclosures, since
3 at least January 2016.

4 22. On information and belief, users making routine use of the accused
5 LRDIMM products infringe at least the '907 Asserted Claims. On information and
6 belief, each of Defendants was aware that the accused LRDIMM products infringe at
7 least the '907 Asserted Claims, and was aware that users making routine use of the
8 accused LRDIMM products infringe those claims.

9 23. On information and belief, each of Defendants specifically intended that
10 users of the accused LRDIMM products infringe at least the '907 Asserted Claims,
11 and took actions while the '907 patent was in force intending to cause the infringing
12 acts, including the infringing routine use of the accused LRDIMM products by users.
13 For example, on information and belief, Defendants provide specifications, datasheets,
14 instruction manuals, and/or other materials that encourage and facilitate infringing use
15 of the accused LRDIMM products by users with the intent of inducing infringement.

16 24. On information and belief, each of Defendants contributes to the direct
17 infringement of at least the '907 Asserted Claims, including the infringing routine use
18 of the accused LRDIMM products by users. On information and belief, Defendants
19 have sold, offered for sale and/or imported within the United States the accused
20 LRDIMM products for use in a product or process that practices those claims, while
21 the '907 patent was in force. On information and belief, the accused LRDIMM
22 products have no substantial noninfringing use, and constitute a material part of the
23 patented invention. On information and belief, each of Defendants is aware that the
24 product or process that includes the accused LRDIMM products may be covered by a
25 claim of the '907 patent or may satisfy a claim of the '907 patent under the doctrine of
26 equivalents. On information and belief, the use of the product or process that includes
27 the accused LRDIMM products infringes at least the '907 Asserted Claims.
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elsewhere in the United States, without authority, the accused LRDIMM products and Hynix DDR4 RDIMMs (Registered Dual In-Line Memory Modules), including but not limited to the exemplary Hynix DDR4 RDIMM modules identified in the Hynix Q1 2017 Databook attached as Exhibit 2 (the “accused RDIMM products”) (collectively the “accused products” or the “accused LRDIMM and RDIMM products”).

'623 Independent Claims	'623 Dependent Claims
1	2, 3, 4, 5, 6, 7, 8, 9, 10, and 11
12	13, 14, 15, 16, 17, 18, 19, and 20
21	22, 23, 24, 25, 26, 27, 28, and 29

31. An exemplary claim chart comparing the asserted independent claims of the '623 patent to exemplary accused LRDIMM and RDIMM products (part number HMA84GL7AMR4N-TF TE AB (32GB DDR4 LRDIMM) and part number HMA84GR7MFR4N-TF TD BA (32GB DDR4 RDIMM)) is attached as Exhibit 5.

32. On information and belief, each of Defendants has been aware of the '837 patent, the parent of the '623 patent, and the patents' identical disclosures, since at least January 2016.

33. On information and belief, users making routine use of the accused LRDIMM and RDIMM products infringe at least the '623 Asserted Claims. On information and belief, each of Defendants was aware that the accused LRDIMM and RDIMM products infringe at least the '623 Asserted Claims, and was aware that users making routine use of the accused LRDIMM and RDIMM products infringe those claims. On information and belief, each of Defendants specifically intended that users of the accused LRDIMM and RDIMM products infringe at least the '623 Asserted Claims, and took actions while the '623 patent was in force intending to cause the infringing acts, including the infringing routine use of the accused

1 LRDIMM and RDIMM products by users. For example, on information and belief,
2 Defendants provide specifications, datasheets, instruction manuals, and/or other
3 materials that encourage and facilitate infringing use of the accused LRDIMM and
4 RDIMM products by users with the intent of inducing infringement.

5 34. On information and belief, each of Defendants contributes to the direct
6 infringement of at least the '623 Asserted Claims, including the infringing routine use
7 of the accused LRDIMM and RDIMM products by users. On information and belief,
8 Defendants have sold, offered for sale and/or imported within the United States the
9 accused LRDIMM and RDIMM products for use in a product or process that
10 practices those claims, while the '623 patent was in force. On information and belief,
11 the accused LRDIMM and RDIMM products have no substantial noninfringing use,
12 and constitute a material part of the patented invention. On information and belief,
13 each of Defendants is aware that the product or process that includes the accused
14 LRDIMM and RDIMM products may be covered by a claim of the '623 patent or
15 may satisfy a claim of the '623 patent under the doctrine of equivalents. On
16 information and belief, the use of the product or process that includes the accused
17 LRDIMM and RDIMM products infringes at least the '623 Asserted Claims.

18 35. Defendants have committed these acts of direct and indirect infringement
19 with knowledge of at least the '623 Asserted Claims and thus have acted recklessly
20 and willfully with regard to Netlist's rights in the '623 patent.

21 36. As a result of Defendants' direct, indirect and willful infringement of at
22 least the '623 Asserted Claims, Netlist has suffered and is continuing to suffer
23 monetary damages and is entitled to a monetary judgment in an amount adequate to
24 compensate for Defendants' past infringement, together with enhanced damages,
25 attorneys' fees, interest, and costs.

26 37. Netlist has been irreparably harmed by Defendants' acts of infringement,
27 and will continue to be harmed unless and until Defendants' acts of infringement are
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1 enjoined and restrained by order of this Court. Netlist has no adequate remedy at law
2 and is entitled to a preliminary and permanent injunction against Defendants and the
3 accused LRDIMM and RDIMM products.

4 **PRAYER FOR RELIEF**

5 **WHEREFORE**, Netlist respectfully requests that judgment be entered:

6 A. Declaring that Defendants have infringed and are infringing, directly and
7 indirectly, the claims of the asserted patents;

8 B. Compensating Netlist for all damages caused by Defendants'
9 infringement of the asserted patents;

10 C. Enhancing Netlist's damages up to three times their amount under 35
11 U.S.C. § 284;

12 D. Granting Netlist pre- and post-judgment interests, together with all costs
13 and expenses;

14 F. Granting Netlist its reasonable attorneys' fees under 35 U.S.C. § 285;

15 G. Granting a permanent injunction enjoining and restraining Defendants and
16 their agents, servants, employees, affiliates, divisions, and subsidiaries, and
17 those in association with Defendants, from making, using, offering to sell,
18 selling, and importing into the United States any product, or using, offering to
19 sell, or selling any service, that falls within the scope of any claim of the asserted
20 patents; and

21 H. Awarding such other relief as this Court may deem just and proper.

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23 Dated: June 14, 2017

MINTZ LEVIN COHN FERRIS GLOVSKY
AND POPEO P.C.

24 

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Nada I. Shamonki

26 *Attorneys for Plaintiff Netlist Inc.*
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DEMAND FOR JURY TRIAL

Netlist respectfully requests a trial by jury on all claims so triable.

Dated: June 14, 2017

MINTZ LEVIN COHN FERRIS GLOVSKY
AND POPEO P.C.



Nada I. Shamoni

Attorneys for Plaintiff Netlist Inc.