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3 **UNITED STATES DISTRICT COURT**
4 **FOR THE SOUTHERN DISTRICT OF TEXAS**

5 JAMES B. GOODMAN,

6 Plaintiff,

7 vs.

8 SAMSUNG ELECTRONICS CO., LTD, a
9 Korean corporation; SAMSUNG
10 ELECTRONICS AMERICA, INC., a New York
11 corporation; SAMSUNG
TELECOMMUNICATIONS AMERICA, LLC, a
Delaware limited liability company,

12 Defendant.

Civil Action No.

**COMPLAINT FOR PATENT
INFRINGEMENT AND**

DEMAND FOR JURY TRIAL

13 NOW COMES Plaintiff, JAMES B. GOODMAN (“Goodman” herein), through his
14 attorney, and files this Complaint for Patent Infringement and Demand for Jury Trial against
15 Samsung Electronics Co., Ltd., Samsung Electronics America, Inc. and Samsung
16 Telecommunications America, LLC (collectively “Samsung”).

17 **PARTIES**

- 18 1. Goodman is an individual residing in the State of Texas.
19 2. Samsung Electronics Co., Ltd. (“SEC”) is a Korean corporation with its principal
20 offices at 250, 2-ga, Taepyong-ro, Jung-gu, Seoul, 100-742, South Korea. SEC
21 designs, manufactures, and provides to the United States a wide ranges of
22 products, including consumer electronics, computers, and mobile phones.
23 3. Samsung Electronics America, Inc. (“SEA”) is a New York corporation with its
24 principal place of business at 105 Challenger Road, Ridgefield Park, New Jersey
25 07660. On information and belief, SEA is a subsidiary of SEC, and markets, sell
26 or offers for sale in the United States many consumer electronics, including
27 mobile phones, and computers.
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1 4. Samsung Telecommunications America, LLC (“STA”) is a Delaware limited
2 liability company with its principal place of business at 1301 East Lookout Drive,
3 Richardson, Texas 75081. On information and belief, STA is a subsidiary of
4 SEC, and markets, sell, or offer for sale personal and business communications
5 devices in the United States, including computer, and mobile phones.

6 **JURISDICTION AND VENUE**

7 5. This is an action for patent infringement of United States Patent No. 6,243,315
8 (hereinafter “the ‘315 Patent”) pursuant to the laws of the United States of
9 America as set forth in Title 35 Sections 271 and 281 of the United States Code.
10 This court has subject matter jurisdiction over this action pursuant to 28 U.S.C.
11 Sec. 1338(a) and 28 U.S.C. Sec. 1331. Venue is proper in this judicial district
12 under 28 U.S.C. § 1391(d) and 1400(b).

13 6. On information and belief, SEC, SEA, and STA each have substantial sales and
14 presence in this Federal Jurisdiction through offering to sell, and sales online
15 through the internet, and through a multitude of local stores in this Federal
16 Jurisdiction.

17 7. On information and belief, each of SEC, SEA, and STA is subject to this Court’s
18 specific and general personal jurisdiction, pursuant to due process and/or the
19 Texas Long Arm Statute, due to at least its business presence in this Federal
20 Judicial District, including substantial infringement in this Federal Judicial
21 District.

22 8. On information and belief, each of SEC, SEA, and STA directly and/or through
23 intermediaries, advertise at least through web sites and other web sites, offers to
24 sell, sold and/or distributed its products, and/or has induced the sale and use of
25 infringing products in this Federal Judicial District.

1 9. In addition, and on information and belief, each of SEC, SEA, and STA is subject
2 to the Court's general jurisdiction, including from regularly doing business, or
3 soliciting business, or engaging in other persistent courses of conduct, and/or
4 deriving substantial revenue from goods and services provided to individuals and
5 businesses in this Federal Judicial District.

6 **BACKGROUND**

7 10. Goodman is the inventor and patent owner of the '315 Patent. The '315 Patent
8 jumped into importance when the consumer and commercial fields discovered the
9 enormous advantages of incorporating the claimed invention of the '315 Patent to
10 save power consumption and inhibit errors in devices requiring memories
11 systems.

12 11. Many of the mobile phones, and computer related products sold in this Federal
13 Judicial District by Samsung incorporate memory products known in the industry
14 as DDR3, and DDR4 memory products. Variations of these memory products
15 such as the DDR3 memory product include DDR3-800, DDR3-1066, DDR3-
16 1333, DDR3-1600, and DDR3-1666 as well as DDR3L-800, DDR3L-1066,
17 DDR3L-1333, DDR3L-1600, and DDR3L-1666. The use of the terms "DDR3",
18 and "DDR4" to include in the designation of a memory product in the industry
19 requires the performance of the memory product to comply with the respective
20 industry standards for performance, and operations.

21 12. The standards published by the Joint Electron Device Engineering Council Solid
22 State Technology Association ("JEDEC") state for the respective DDR3, and
23 DDR4 memory products and their variation: "No claims to be in conformance
24 with this standard may be made unless all requirements stated in the standard are
25 met."

26 13. On information and belief, the use of the terms "DDR3", and "DDR4", and
27 variations of each implies that the respective memory products complies with the
28 corresponding JEDEC Standards.

- 1 14. Therefore, the DDR3, and DDR4 memory products and their variations must
2 operate in compliance with the respective standards established by the JEDEC
3 Solid State Technology Association, 3103 North 10th Street, Suite 240-S,
4 Arlington, VA 22201.
- 5 15. Any memory product identified as being a DDR3 memory product, or a variation
6 thereof including the term "DDR3" must comply with JEDEC Standard
7 JESD79-3F.
- 8 16. Any memory product identified as being a DDR4 memory product, or a variation
9 thereof including the term "DDR4" must comply with JEDEC Standard
10 JESD79-4A.
- 11 17. On information and belief, the JEDEC Standards for DDR3, and DDR4 memory
12 products have several relevant operating capabilities in common when installed in
13 a Samsung mobile phone, or computer related product, for example: (a) Each
14 memory product has at least two banks of volatile memory, and this is the
15 equivalent of a plurality of volatile solid state memory devices under the doctrine
16 of equivalents; (b) A first external device (supplied by Samsung mobile phone,
17 and computer related product) connected to the memory product can provide
18 signals for selectively electrically isolating the address and control lines so that
19 signals on the address and control lines do not reach the memory devices; and (c)
20 A second external device (supplied by Samsung mobile phone, and computer
21 related product) connected to the memory product can determine when the
22 memory system is not being accessed and can initiate a low power for the memory
23 system wherein the first external device isolates the memory devices and places
24 the memory devices in self refresh mode, thereby reducing the electrical energy
25 drawn from the electrical power supply of the Samsung mobile phone, and
26 computer related product.
- 27 18. On information and belief, the aforementioned Samsung computer related
28 products incorporating a DDR3, and DDR4 provide the aforementioned first and
second external devices in order to take advantage of the respective operating

1 specification of the memory products, including the low power mode which saves
2 electrical energy while protecting the memory product against potential signals
3 which could damage or corrupt the stored data.

- 4 19. The following is a Claim Chart for Claim 1 of the '315 Patent for the DDR3
5 memory product (and similarly applies to the DDR4 memory product)
6 incorporated into a Samsung mobile phone, or computer relates system:

7 **CLAIM CHART AND ASSOCIATED CONSTRUCTION**

8 **U.S. Patent No. 6,243,315**

**SAMSUNG MOBILE PHONE, OR
COMPUTER RELATED SYSTEM
HAVING AN INSTALLED DDR3
MEMORY PRODUCT AND PROVIDING
THE AFOREMENTIONED FIRST AND
SECOND EXTERNAL DEVICES**

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12 Claim 1. A memory system for use in a
13 computer system, said memory system
14 comprising:

15 A "memory system" can be construed to be
16 "a system capable of retaining data". The
17 JEDEC Standard JESD79-3F specification at
18 p. 18, Sec. 3.2, "The DDR3 SDRAM is a
19 high-speed dynamic random-access memory
20 ...". On the same page, "an interface designed
21 to transfer two data words per clock cycle".
22 The DDR3 memory product retains data.

23 Thus, this memory product is within the
24 preamble description.
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1 a plurality of volatile solid state memory
 2 devices that retain information when an
 3 electrical power source is applied to said
 4 memory devices within a predetermined
 5 voltage range and
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 23 capable of being placed in a self refresh
 24 mode;
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 27 said memory devices having address lines and
 28 control lines;

A “memory device” can be construed to be an
“integrated circuit or chip”; and “a plurality
 of volatile solid state memory devices” can be
 construed to be **“two or more memory
 devices in the memory system into which
 data may be written or from which data
 may be retrieved that retain information
 while a electrical power source, having a
 predetermined voltage range, is applied to
 the memory devices and when the voltage
 reaches a predetermined threshold outside
 of that range, the memory devices will no
 longer retain their current state of
 information”**.

The JEDEC Standard JESD79-3F at p. 109,
 Sec. 6.1 states the absolute maximum DC
 Ratings. P. 111, Sec. 7.1 shows the
 recommended DC Operating Conditions with
 a minimum and maximum for the DC
 voltages.

The JEDEC Standard JESD79-3F in at p. 77
 refers to the memory module as being a
 “chip”. See Sec. 4.15.

The JEDEC Standard JESD79-3F at p. 18,
 Sec. 3.2 states, “The DDR3 SDRAM is a
 high-speed dynamic random-access internally
 configured a an eight-bank DRAM.” The
 second paragraph describes how a bank can
 be selected. See the Command Truth Table at
 p. 33, Sec. 4.1, and NOTE 3 explains that
 “BA” is for the selection of a bank being
 operated upon. Hence, the DDR3 has eight
 memory banks and the equivalents of a
 plurality of solid state memory devices.

On information and belief, a DRAM is
 volatile memory and that means a voltage in a
 specific range must be applied to operate
 acceptably as pointed out above.

The JEDEC Standard JESD79-3F shows that
 the DDR3 is capable of being refreshed at p.
 13, Sec. 2.10 for CKE, (CKE0), (CKE1)
 “Self-Refresh operations (all banks idle)”;
 p. 17, Sec. 3.1 on the diagram; p. 31, Sec.
 3.4.4.1 entitled “Partial Array Self-Refresh
 (PASR)”;
 p. 35, Sec. 4.2 shows an entry for
 “Self-Refresh”; p. 46, Sec. 4.9.0.1 entitled,
 “Auto Self-Refresh”; and

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a control device for selectively electrically isolating said memory devices from respective address lines and respective control lines so that when said memory devices are electrically isolated, any signals received on said respective address lines and respective control lines do not reach said memory devices; and

a memory access enable control device coupled to said control device and to said control lines for determining when said memory system is not being accessed and for initiating a low power mode for said memory system wherein said control device electrically isolates said memory devices and places said memory devices in said self refresh mode, thereby reducing the amount of electrical energy being drawn from an electrical power supply for said computer system.

and p. 79, Sec. 4.16 entitled "Self-Refresh Operation".

JEDEC Standard JESD79-3F at p. 81, Sec. 4.17.1 entitled "Power-Down Entry and Exit" discloses a power-down operation. The description states, "Entering power-down deactivates the input and output buffers, excluding CK, CK#, ODT, CKE, and RESET#. To protect DRAM internal delay on CKE line to block the input signals, multiple NOP or Deselect commands are needed during the CKE switch off and cycle(s) after, this timing period are defined as tCPDED. CKE_low will result in deactivation of command and receivers after tCPDED has expired. The text also states, "In power-down mode, CKE low, RESET# high, and stable clock signal must be maintained at the inputs of the DDR3 SDRAM, and ODT should be in a valid state, but all other input signals are "Don't Care." The input signals are address and control signals are related to the CK# input noted at p. 13, Sec. 2.10, where it is stated, "All Address and control input signals are sampled on the crossing of the positive edge of CK and negative edge of CK#.

The power-down is due to an input signal from the second external device as pointed out at P. 13, Sec. 2.10. The device generating the input signal for the power-down functions like the claimed memory access enable control device. JEDEC Standard JESD79-3F , Sec. 4.17.1 states, " Power-down is synchronously entered when CKE is registered low (along with NOP or Deselect command). CKE is not allowed to go low while mode register set command, MPR operations, ZQCAL operations, DLL locking or read/write operations are in progress.

1 20. The respective DDR3, and DDR4 memory products are typically incorporated into
2 the Samsung mobile phone and computer related product on what is known in the
3 industry as a "motherboard", and other components on the motherboard provide
4 subsystems to monitor activity in the mounted memory product, initiate the
5 reduced power down mode, to inhibit responses in the memory products on the
6 motherboard, and other requirements of the respective JEDEC standard.

7 21. Goodman has granted limited, non-exclusive licenses to the following companies:
8 Patriot Memory, LLC, Nan Ya Technology Corporation USA, ON Semiconductor
9 Corporation, Intel Corporation, Numonyx B.V., Atmel Corporation, Spansion,
10 Inc., Hynix Semiconductor America Inc., NanoAmp Solutions, Inc., Integrated
11 Silicon Solutions Inc., Fujitsu, Samsung, Sharp Electronics Corporation, Toshiba
12 Corporation, Elpida, Micron Technology, Inc., Infineon Technologies North
13 America Corp, and Smart Modular Technologies Inc.

14 **COUNT ONE**
15 **(DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,243,315)**

16 22. Plaintiff Goodman repeats and incorporates herein the allegations contained in
17 paragraphs 1 through 21 above.

18 23. On June 5, 2001, the '315 Patent entitled "COMPUTER MEMORY SYSTEM
19 WITH A LOW POWER MODE", was duly and legally issued to James B.
20 Goodman, as the sole patentee.

21 24. Plaintiff Goodman is the sole owner of the '315 Patent, and has standing to bring
22 this action.

23 25. All of the limitations of Claim 1 of the '315 Patent are present in SEC related
24 mobile phones, or computer products incorporating at least one DDR3, or DDR4
25 memory product offered for sale, and being sold directly or indirectly by SEC in
26 this Federal Judicial District.

27 26. SEC is infringing at least claim 1 of the '315 Patent literally, or under the doctrine
28 of equivalents in this Federal Judicial District.

COUNT TWO

(DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,243,315)

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- 2
- 3 27. Plaintiff Goodman repeats and incorporates herein the allegations contained in
- 4 paragraphs 1 through 21 above.
- 5 28. On June 5, 2001, the '315 Patent entitled "COMPUTER MEMORY SYSTEM
- 6 WITH A LOW POWER MODE", was duly and legally issued to James B.
- 7 Goodman, as the sole patentee.
- 8 29. Plaintiff Goodman is the sole owner of the '315 Patent, and has standing to bring
- 9 this action.
- 10 30. All of the limitations of Claim 1 of the '315 Patent are present in SEA related
- 11 mobile phones, or computer products incorporating at least one DDR3, or DDR4
- 12 memory product offered for sale, and being sold directly or indirectly by SEC in
- 13 this Federal Judicial District.
- 14 31. SEA is infringing at least claim 1 of the '315 Patent literally, or under the doctrine
- 15 of equivalents in this Federal Judicial District.

COUNT ONE

(DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,243,315)

- 16
- 17
- 18 32. Plaintiff Goodman repeats and incorporates herein the allegations contained in
- 19 paragraphs 1 through 21 above.
- 20 33. On June 5, 2001, the '315 Patent entitled "COMPUTER MEMORY SYSTEM
- 21 WITH A LOW POWER MODE", was duly and legally issued to James B.
- 22 Goodman, as the sole patentee.
- 23 34. Plaintiff Goodman is the sole owner of the '315 Patent, and has standing to bring
- 24 this action.
- 25 35. All of the limitations of Claim 1 of the '315 Patent are present in STA related
- 26 mobile phones, or computer products incorporating at least one DDR3, or DDR4
- 27 memory product offered for sale, and being sold directly or indirectly by SEC in
- 28 this Federal Judicial District.

1 36. STA is infringing at least claim 1 of the '315 Patent literally, or under the doctrine
2 of equivalents in this Federal Judicial District.

3 **JURY DEMAND**

4 Pursuant to Fed. R. Civ. P. 38(b), Plaintiff hereby demands a jury trial as to all issues in
5 this lawsuit.

6 **PRAYER FOR RELIEF**

7 THEREFORE, Plaintiff respectfully requests this Court to:

- 8 a. enter judgment for Plaintiff on Claim 1 of the '315 Patent for patent infringement,
9 either literally, and/or under the doctrine of equivalents against SEC, SEA, and
10 STA, respectively;
- 11 b. order that an accounting be had for the damages caused to the Plaintiff by the
12 infringing activities of the SEC, SEA, and STA, respectively;
- 13 c. enter an injunction to prohibit SEC, SEA, and STA, respectively, from directly or
14 indirectly from offering for sale, or selling infringing products;
- 15 d. award Plaintiff interest and costs for SEC, SEA, and STA, respectively; and
16 e. award Plaintiff such other and further relief as this Court may deem just and
17 equitable.

18 THE PLAINTIFF

19 JAMES B. GOODMAN

20 Date: February 13, 2017

21 /s/ David Fink
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