

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

JAMES B. GOODMAN,

Plaintiff,

vs.

HEWLETT-PACKARD COMPANY,

Defendant.

**Civil Action No.
COMPLAINT FOR PATENT**

INFRINGEMENT AND

DEMAND FOR JURY TRIAL

NOW COMES Plaintiff, JAMES B. GOODMAN (“Goodman” herein), through his attorney, and files this Complaint for Patent Infringement and Demand for Jury Trial against Hewlett-Packard Company (“HP” herein).

PARTIES

1. Goodman is an individual residing in the State of Texas.
2. On information and belief from the web site for HP, the U.S. Corporate Headquarters is located at 1501 Page Mill Road, Palo Alto, CA 94304.
3. On information and belief from the web site for HP, HP promotes the purchase of its products in this Federal Jurisdiction on its web site, and through many stores in Houston, TX, including Best Buy, SP Richards Co., Staples Technologies Solutions, and Frys Electronics.
4. In addition, on information and belief, HP has a corporate campus located at 20555 State Highway 249, Houston, TX 77070.
5. On information and belief, HP has substantial sales and business presence in this Federal Jurisdiction through HP’s sales online through the internet, and through

1 local stores; and HP has a significant physical presence at least with its corporate
2 campus in Houston, TX.

3 **JURISDICTION AND VENUE**
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- 5 6. This is an action for patent infringement of United States Patent No. 6,243,315
6 (hereinafter "the '315 Patent") pursuant to the laws of the United States of
7 America as set forth in Title 35 Sections 271 and 281 of the United States Code.
8 This court has subject matter jurisdiction over this action pursuant to 28 U.S.C.
9 Sec. 1338(a) and 28 U.S.C. Sec. 1331. Venue is proper in this judicial district
10 under 28 U.S.C. §§ 1391(b), (c) and 1400(b).
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- 12 7. On information and belief, HP is subject to this Court's specific and general
13 personal jurisdiction, pursuant to due process and/or the Texas Long Arm Statute,
14 due to at least its business presence in this Federal Judicial District, including
15 substantial infringing activities in this Federal Judicial District.
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- 17 8. On information and belief, HP, directly and/or through intermediaries, advertise at
18 least through web sites and other web sites, offers to sell, sold and/or distributed
19 its products, and/or has induced the sale and use of infringing products in this
20 Federal Judicial District. In addition, and on information and belief, HP is subject
21 to the Court's general jurisdiction, including from regularly doing business, or
22 soliciting business, or engaging in other persistent courses of conduct, and/or
23 deriving substantial revenue from goods and services provided to individuals and
24 businesses in this Federal Judicial District.
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- 26 9. Venue is proper in this Federal Judicial District because, on information and
27 belief, HP has committed substantial infringement of the '315 Patent in this
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Judicial District, and maintains offices in this Federal Judicial District.

BACKGROUND

10. HP makes, offers for sale many computer related products, including desktop computers, laptop computers, servers, and the like, and many of these HP computer related products incorporate memory products known in the industry as DDR3, DDR3L, DDR4, and LPDDR4 memory products. Variations of these memory products such as the DDR3 memory product include DDR3-800, DDR3-1066, DDR3-1333, DDR3-1600, and DDR3-1666 as well as DDR3L-800, DDR3L-1066, DDR3L-1333, DDR3L-1600, and DDR3L-1666. The use of the terms "DDR3", "DDR3L", "DDR4", and "LPDDR4" to include in the designation of a memory product requires the performance of the memory product to comply with the respective industry standards for performance, and operations.
11. The standards published by the Joint Electron Device Engineering Council Solid State Technology Association ("JEDEC") state for the respective DDR3, DDR3L, DDR4, and LPDDR4 memory products and their variation: "No claims to be in conformance with this standard may be made unless all requirements stated in the standard are met."
12. On information and belief, the use of the terms "DDR3", "DDR3L", "DDR4", and "LPDDR4" and variations thereof implies that the respective memory products complies with the corresponding JEDEC Standards.
13. Therefore, the DDR3, DDR3L, DDR4, and LPDDR4 memory products and their variations must operate in compliance with the respective standards established by the JEDEC Solid State Technology Association, 3103 North 10th Street, Suite

1 240-S, Arlington, VA 22201.

2 14. Any memory product identified as being a DDR3 memory product or a variation
3 thereof including the term "DDR3" must comply with JEDEC Standard
4 JESD79-3F.
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6 15. Any memory product identified as being a DDR3L memory product or a variation
7 thereof including the term "DDR3L" must comply with both JEDEC Standard
8 JESD79-3F and JESD79-3-1A.01.
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10 16. Any memory product identified as being a DDR4 memory product or a variation
11 thereof including the term "DDR4" must comply with JEDEC Standard
12 JESD79-4A.

13 17. Any memory product identified as being a LPDDR4 memory product or a
14 variation thereof including the term "LPDDR4" must comply with JEDEC
15 Standard JESD209-4A.
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17 18. On information and belief, the JEDEC Standards for DDR3, DDR3L, DDR4, and
18 LPDDR4 memory products have several relevant operating capabilities in
19 common when installed in an HP computer related product, for example: (a) Each
20 memory product has at least two banks of volatile memory, and this is the
21 equivalent of a plurality of volatile solid state memory devices under the doctrine
22 of equivalents; (b) A first external device (supplied by HP computer related
23 product) connected to the memory product can provide signals for selectively
24 electrically isolating the address and control lines so that signals on the address
25 and control lines do not reach the memory devices; and (c) A second external
26 device (supplied by HP computer related product) connected to the memory
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product can determine when the memory system is not being accessed and can initiate a low power for the memory system wherein the first external device isolates the memory devices and places the memory devices in self refresh mode, thereby reducing the electrical energy drawn from the electrical power supply of the HP computer related product.

19. On information and belief, the aforementioned HP computer related products incorporating a DDR3, DDR3L, DDR4, or LPDDR4 provide the aforementioned first and second external devices in order to take advantage of the respective operating specification of the memory products, including the low power mode which saves electrical energy while protecting the memory product against potential signals which could damage or corrupt the stored data.

20. The following is a Claim Chart for Claim 1 of the '315 Patent for the DDR3 memory product:

CLAIM CHART AND ASSOCIATED CONSTRUCTION

U.. Patent No. 6,243,315

**HP COMPUTER RELATED SYSTEM
HAVING AN INSTALLED DDR3
MEMORY PRODUCT AND PROVIDING
THE AFOREMENTIONED FIRST AND
SECOND EXTERNAL DEVICES**

<p>Claim 1. A memory system for use in a computer system, said memory system comprising:</p>	<p>A “memory system” can be construed to be “a system capable of retaining data”. The JEDEC Standard JESD79-3F specification at p. 18, Sec. 3.2, “The DDR3 SDRAM is a high-speed dynamic random-access memory ...”. On the same page, “an interface designed to transfer two data words per clock cycle”. The DDR3 memory product retains data.</p> <p>Thus, this memory product is within the preamble description.</p>
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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

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**”.

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

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

19 The JEDEC Standard JESD79-3F at p. 18,
20 Sec. 3.2 states, “The DDR3 SDRAM is a
21 high-speed dynamic random-access internally
22 configured a an eight-bank DRAM.” The
23 second paragraph describes how a bank can
24 be selected. See the Command Truth Table at
25 p. 33, Sec. 4.1, and NOTE 3 explains that
26 “BA” is for the selection of a bank being
27 operated upon. Hence, the DDR3 has eight
28 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.

capable of being placed in a self refresh
mode;

The JEDEC Standard JESD79-3F shows that
the DDR3 is capable of being refreshed at p.

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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 21. The respective DDR3, DDR3L, DDR4, and LPDDR4 memory products are
2 typically incorporated into the HP computer related product on what is known in
3 the industry as a "motherboard", and other components on the motherboard
4 provide subsystems to monitor activity in the mounted memory product, initiate
5 the reduced power down mode, to inhibit responses in the memory products on
6 the motherboard, and other requirements of the respective JEDEC standard.
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8 22. Goodman has granted limited, non-exclusive licenses to the following companies:
9 Patriot Memory, LLC, Nan Ya Technology Corporation USA, ON Semiconductor
10 Corporation, Intel Corporation, Numonyx B.V., Atmel Corporation, Spansion,
11 Inc., Hynix Semiconductor America Inc., NanoAmp Solutions, Inc., Integrated
12 Silicon Solutions Inc., Fujitsu, Samsung, Sharp Electronics Corporation, Toshiba
13 Corporation, Elpida, Micron Technology, Inc., Infineon
14 Technologies North America Corp, and Smart Modular Technologies Inc.
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16 23. On information and belief, HP purchases its memory product from at least one of
17 the companies having a limited license from Goodman, and it has been
18 determined that if this is correct, HP is still liable for patent infringement.
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20 24. On information and belief, HP incorporates memory products from SK Hynix
21 (successor of Hynix) and contact was made with SK Hynix to determine if SK
22 Hynix could provide a factual and legal basis for having its limited license include
23 HP, but SK Hynix was unable, or unwilling to provide any factual and legal basis.
24 Other companies with limited licenses were also unable, or unwilling to provide a
25 factual and legal basis for extending the respective limited licenses to other
26 unlicensed companies.
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COUNT ONE

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

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3 25. Plaintiff Goodman repeats and incorporates herein the allegations contained in
4 paragraphs 1 through 24 above.
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6 26. On June 5, 2001, the '315 Patent entitled "COMPUTER MEMORY SYSTEM
7 WITH A LOW POWER MODE", was duly and legally issued to James B.
8 Goodman, as the sole patentee.

9 27. Plaintiff Goodman is the sole owner of the '315 Patent, and has standing to bring
10 this action.
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12 28. All of the limitations of Claim 1 of the '315 Patent are present in HP related
13 computer products incorporating at least one DDR3, DDR3L, DDR4, or LPDDR4
14 memory product manufactured, offered for sale, and being sold directly or
15 indirectly by HP in this Federal Judicial District.
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17 29. All of the limitations of claim 1 of the '315 Patent are present in HP computer
18 related products including offered for manufactured, offered for sale, and sold
19 directly or indirectly by HP.

20 30. HP is infringing at least claim 1 of the '315 Patent literally, or under the doctrine
21 of equivalents in this Federal Judicial District.
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JURY DEMAND

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

PRAYER FOR RELIEF

THEREFORE, Plaintiff respectfully requests this Court to:

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

THE PLAINTIFF

JAMES B. GOODMAN

Date: October 30, 2016

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