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15 Attorneys for Plaintiffs: Advanced Micro Devices, Inc. and ATI Technologies, ULC

16 UNITED STATES DISTRICT COURT
17 NORTHERN DISTRICT OF CALIFORNIA
18 SAN FRANCISCO DIVISION

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20 (1) ADVANCED MICRO DEVICES,
INC., a Delaware corporation,
21 (2) ATI TECHNOLOGIES, ULC,
a Canadian unlimited liability
22 company

23 Plaintiffs,

24 v.

25 (1) SAMSUNG ELECTRONICS CO.,
LTD., a Korean business entity,
26 (2) SAMSUNG SEMICONDUCTOR,
INC., a California corporation,
27 (3) SAMSUNG AUSTIN
SEMICONDUCTOR, LLC, a Delaware
28 limited liability company,

No. CV-08-0986-SI

**THIRD AMENDED COMPLAINT FOR
PATENT INFRINGEMENT**

[JURY TRIAL DEMANDED]

- 1 (4) SAMSUNG ELECTRONICS
AMERICA, INC., a New York
2 corporation,
 - 3 (5) SAMSUNG
TELECOMMUNICATIONS
AMERICA, LLC, a Delaware limited
4 liability company, and
 - 5 (6) SAMSUNG DIGITAL IMAGING CO.,
LTD., a Korean business entity
- 6 Defendants.

7
8 Plaintiffs Advanced Micro Devices, Inc. and ATI Technologies, ULC (collectively,
9 “Plaintiffs” or “AMD”) for their third amended complaint allege as follows:

10 **INTRODUCTION**

11 This is an action against Samsung Electronics Co., Ltd., and its U.S. subsidiaries and
12 related entities Samsung Semiconductor, Inc., Samsung Austin Semiconductor, LLC, Samsung
13 Electronics America, Inc., Samsung Telecommunications America, LLC, Samsung Digital
14 Imaging Co., Ltd. (individually or collectively “Defendants” or “Samsung”), for patent
15 infringement under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., for infringing:

- 16 (a) U.S. Patent No. 5,545,592 (“592 Iacononi patent”), entitled “*Nitrogen Treatment for*
17 *Metal-Silicide Contact*”;
- 18 (b) U.S. Patent No. 4,737,830 (“830 Patel patent”), entitled “*Integrated Circuit*
19 *Structure Having Compensating Means for Self-Inductance Effects*”;
- 20 (c) U.S. Patent No. 5,248,893 (“893 Sakamoto patent”), entitled “*Insulated Gate Field*
21 *Effect Device with a Smoothly Curved Depletion Boundary in the Vicinity of the Channel-*
22 *Free Zone*”;
- 23 (d) U.S. Patent No. 5,559,990 (“990 Cheng patent”), entitled “*Memories with Burst*
24 *Mode Access*”;
- 25 (e) U.S. Patent No. 5,377,200 (“200 Pedneau patent”), entitled “*Power Saving Feature*
26 *for Components Having Built-In Testing Logic*,” all owned by Advanced Micro Devices;

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1 (f) U.S. Patent No. 5,623,434 (“434 Purcell patent”), entitled “*Structure and Method of*
2 *Using an Arithmetic and Logic Unit for Carry Propagation Stage of a Multiplier*,” owned
3 by Advanced Micro Devices, Inc.’s subsidiary, ATI Technologies, ULC; and

4 (g) U.S. Patent No. 6,784,879 (“879 Orr patent”), entitled “*Method and Apparatus for*
5 *Providing Control of Background Video*,” owned by Advanced Micro Devices, Inc.’s
6 subsidiary, ATI Technologies, ULC.

7 Collectively, the patents generally cover methods of semiconductor and semiconductor
8 memory chip fabrication; semiconductors and semiconductor memory of certain composition,
9 logic, or design; and consumer products incorporating or embodying the disclosed inventions.

10 **THE PARTIES**

11 1. Advanced Micro Devices, Inc. is a Delaware corporation with its principal offices
12 at One AMD Place, Sunnyvale, California 94085.

13 2. ATI Technologies, ULC is a subsidiary of AMD and is incorporated in Alberta,
14 Canada with its principal offices at 1 Commerce Valley Drive E, Markham, Ontario, L3T 7X6,
15 Canada.

16 3. Samsung Electronics Co., Ltd. (“SEC”) is a Korean business entity with its
17 principal offices at 250, 2-ga, Taepyong-ro, Jung-gu, Seoul, 100-742, South Korea. On
18 information and belief, SEC is South Korea’s largest company and one of Asia’s largest electronics
19 companies. SEC designs, manufactures, and provides to the U.S. and world markets flash, DRAM,
20 graphics memory, and other memory components, as well as other logic components, which are
21 used in computers, and myriad mobile and entertainment products.

22 4. Samsung Semiconductor, Inc. (“SSI”) is a California corporation with its principal
23 place of business located at 3655 North First Street, San Jose, California 95134. On information
24 and belief, SSI is a wholly owned subsidiary of SEC and was established in 1983 as a California
25 corporation with approximately 300 employees in the Americas. On information and belief, SSI is
26 the sales arm for SEC and sells flash, DRAM, graphics memory, and other memory components;
27 conducts primary market and product research for SEC; and enables regional customers to
28 influence the direction of SEC’s future technologies and products.

1 in this district) as alleged in this complaint. In addition, SSI in particular maintains a regular and
2 established place of business at 3655 North 1st Street, San Jose, California, 95134.

3 **VENUE**

4 11. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b) and (c) and
5 1400(b) because Defendants reside in this judicial district. Further, SSI has committed acts of
6 infringement and has a regular established place of business in this district.

7 **INTRADISTRICT ASSIGNMENT**

8 12. This is a patent infringement action, and therefore exempt from Intradistrict
9 Assignment under Civil L.R. 3-2(c).

10 **FACTUAL BACKGROUND**

11 13. Plaintiffs solely own all rights, titles, and interests in and to the following United
12 States patents (collectively, the “AMD Patents”), including the exclusive rights to bring suit with
13 respect to any past, present, and future infringement thereof:

- 14 (a) U.S. Patent No. 5,545,592, entitled “*Nitrogen Treatment for Metal-Silicide*
15 *Contact*,” which was duly and legally issued on August 13, 1996, from a patent
16 application filed February 24, 1995, with John Iacoponi as the named inventor.
17 Among other things, the ’592 Iacoponi patent discloses an improved method of
18 forming a contact point in a semiconductor device.
- 19 (b) U.S. Patent No. 4,737,830, entitled “*Integrated Circuit Structure Having*
20 *Compensating Means for Self-Inductance Effects*,” which was duly and legally
21 issued on April 12, 1988, from a patent application filed January 8, 1986, with
22 Bharat Patel as the lead named inventor. Among other things, the ’830 Patel
23 patent discloses an improved integrated circuit wherein self-inductive voltage
24 spikes are reduced through the use of capacitance means constructed beneath at
25 least one bus.
- 26 (c) U.S. Patent No. 5,248,893, entitled “*Insulated Gate Field Effect Device with a*
27 *Smoothly Curved Depletion Boundary in the Vicinity of the Channel-Free Zone*,”
28 which was duly and legally issued on September 28, 1993, from a patent

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application filed January 5, 1993, with Shinichi Sakamoto as the named inventor. Among other things, the '893 Sakamoto patent discloses an insulated gate field effect device with a smoothly curved depletion boundary in the vicinity of the channel-free zone.

- (d) U.S. Patent No. 5,559,990, entitled "*Memories with Burst Mode Access*," which was duly and legally issued on September 24, 1996, from a patent application filed October 24, 1994, with Pearl Cheng as the lead named inventor. Among other things, the '990 Cheng patent discloses a memory employing multiple sub-arrays that facilitates faster burst-mode access.
- (e) U.S. Patent No. 5,377,200, entitled "*Power Saving Feature for Components Having Built-In Testing Logic*," which was duly and legally issued on December 27, 1994, from a patent application filed August 27, 1992, with Michael Pedneau as the named inventor. Among other things, the '200 Pedneau patent discloses an improvement to built-in testing in an electronic component, in particular the ability to reduce or remove the power applied to testing circuits when not in use.
- (f) U.S. Patent No. 5,623,434, entitled "*Structure and Method of Using an Arithmetic and Logic Unit for Carry Propagation Stage of a Multiplier*," which was duly and legally issued on April 22, 1997, from a patent application filed July 27, 1994, with Stephen Purcell as the named inventor. Among other things, the '434 Purcell patent discloses a method and apparatus for using an arithmetic and logic unit as part of a multiplier circuit.
- (g) U.S. Patent No. 6,784,879, entitled "*Method and Apparatus for Providing Control of Background Video*," which was duly and legally issued on August 31, 2004, from a patent application filed July 14, 1997, with Stephen Orr as the named inventor. Among other things, the '879 Orr patent discloses a method and apparatus for control of background video on a display, which allows the user to control attributes of the video, such as volume, for example, while the video

1 continues to play in the background and another application remains in focus on
2 the display.

3 14. Each of the AMD Patents is valid and enforceable.

4 15. The Defendants have actual notice of all of the AMD Patents and the infringement
5 alleged herein at least upon filing of this third amended complaint (if not earlier), pursuant to 35
6 U.S.C. § 287(a), and Defendants Samsung Electronics Co., Ltd., Samsung Semiconductor, Inc.,
7 Samsung Austin Semiconductor, LLC, Samsung Electronics America, Inc., Samsung
8 Telecommunications America, LLC had actual notice of the '592 Iacoponi patent, the '830 Patel
9 patent, the '893 Sakamoto patent, the '990 Cheng patent, the '200 Pedneau patent, the '879 Orr
10 patent and the infringement alleged herein at least upon the filing of the original complaint (if not
11 earlier), pursuant to 35 U.S.C. § 287(a). On information and belief, Defendants had prior actual
12 notice of at least the Iacoponi '592 patent no later than April 2006 and the Patel '830 patent no
13 later than March 31, 2003.

14 16. Each of the Defendants has directly infringed, and continues to infringe, literally
15 or under the doctrine of equivalents, one or more claims of the AMD Patents by acting without
16 authority so as to:

17 (a) make, have made, use, offer to sell, sell within the United States, or import into the
18 United States semiconductor products, including at least Samsung DRAM, SRAM,
19 and NAND-flash memory chips and/or other chips, that embody or practice the
20 patented inventions, as well as electronics products that contain these chips, or
21 practice the patented processes in the United States in connection with these
22 activities;

23 (b) import into the United States or offer to sell, sell, or use within the United States
24 semiconductor products, including at least Samsung DRAM and NAND-flash
25 memory chips and/or other chips made by a process patented by AMD, as well as
26 electronics products that contain these chips.

27 17. The above-described acts of infringement committed by Defendants have caused
28 injury and damage to AMD, and as to unexpired patents, will cause additional severe and

1 irreparable injury and damages in the future unless the Defendants are enjoined from further
2 infringing the AMD Patents.

3 **FIRST CLAIM FOR RELIEF**

4 **Infringement of U.S. Patent No. 5,545,592**

5 18. AMD incorporates by reference the allegations set forth in paragraphs 1 through
6 17 above as if specifically set forth herein.

7 19. Defendants have directly infringed one or more claims of the '592 Iaconi patent,
8 literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271. The infringing
9 products include, but are not limited to, for example, Samsung's DRAM and NAND-flash memory
10 chips, as well as any and all products that incorporate such memory chips or any other memory
11 chips practicing or embodying the claimed invention or manufactured by the patented process,
12 including digital cameras. The infringement remains ongoing.

13 20. As a consequence of Defendants' infringement, AMD is entitled to recover
14 damages adequate to compensate it for the injuries complained of herein, but in no event less than
15 a reasonable royalty. AMD further is entitled to have Defendants enjoined from committing
16 additional future acts of infringement which would subject AMD to irreparable harm.

17 21. On information and belief, Defendants had actual knowledge of the '592 Iaconi
18 patent since at least as early as April 2006, when during licensing negotiations AMD presented
19 Defendants with a detailed PowerPoint presentation outlining how Defendants' products
20 specifically infringed claims of the Iaconi '592 patent. Despite Plaintiffs' demand that
21 Defendants either license the '592 Iaconi patent or cease their infringement, Defendants instead
22 opted to continue their willful, deliberate, and intentional infringement of one or more claims of
23 said patent.

24 **SECOND CLAIM FOR RELIEF**

25 **Infringement of U.S. Patent No. 4,737,830**

26 22. AMD incorporates by reference the allegations set forth in paragraphs 1 through
27 21 above as if specifically set forth herein.

28 23. Defendants have directly infringed claims 5 and 6 of the '830 Patel patent, literally

1 and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271. The infringing products
2 include but are not limited to, for example, Samsung's DRAM, SRAM and NAND Flash memory
3 chips, as well as any and all products that incorporate such memory chips or any other memory
4 chips practicing or embodying the claimed invention.

5 24. As a consequence of Defendants' infringement, AMD is entitled to recover
6 damages adequate to compensate it for the injuries complained of herein, but in no event less than
7 a reasonable royalty.

8 25. On information and belief, Defendants had actual knowledge of the '830 Patel
9 patent since at least as early as March 31, 2003, when during licensing negotiations AMD
10 presented Defendants with a detailed PowerPoint presentation outlining how Defendants' products
11 specifically infringed claims of the '830 Patel patent.

12 **THIRD CLAIM FOR RELIEF**

13 **Infringement of U.S. Patent No. 5,248,893**

14 26. AMD incorporates by reference the allegations set forth in paragraphs 1 through
15 25 above as if specifically set forth herein.

16 27. Defendants have directly infringed one or more claims of the '893 Sakamoto
17 patent, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271. The
18 infringing products include but are not limited to, for example, Samsung's DRAM memory chips,
19 as well as any and all products that incorporate such memory chips or any other memory chips
20 practicing or embodying the claimed invention.

21 28. As a consequence of Defendants' infringement, AMD is entitled to recover
22 damages adequate to compensate it for the injuries complained of herein, but in no event less than
23 a reasonable royalty. AMD further is entitled to have Defendants enjoined from committing
24 additional future acts of infringement which would subject AMD to irreparable harm.

25 **FOURTH CLAIM FOR RELIEF**

26 **Infringement of U.S. Patent No. 5,559,990**

27 29. AMD incorporates by reference the allegations set forth in paragraphs 1 through
28 28 above as if specifically set forth herein.

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- A. enter judgment that each of the Defendants has infringed one or more claims of one or more of the AMD Patents;
- B. enter judgment that Defendants’ infringement of the ’592 Iacoponi patent has been willful, deliberate, and intentional;
- C. enter a preliminary and permanent injunction, pursuant to 35 U.S.C. § 283, enjoining each of the Defendants, and all of their respective agents, servants, officers, directors, employees, and all other persons acting in concert with them, directly or indirectly, from any further acts of infringement of the non-expired AMD Patents;
- D. enter an order, pursuant to 35 U.S.C. § 284, awarding to AMD damages adequate to compensate for Defendants’ infringement of the AMD Patents (and, if necessary, related accountings), in an amount to be determined at trial, but not less than a reasonable royalty;
- E. enter an order, pursuant to 35 U.S.C. § 284, trebling damages awarded to AMD to the extent Defendants’ infringement of the ’592 Iacoponi patent is determined to have been willful;
- F. enter an order, pursuant to 35 U.S.C. § 285, deeming this to be an “exceptional case” and thereby awarding to AMD its reasonable attorneys’ fees, costs, and expenses;
- G. enter an order that Defendants account for and pay to AMD the damages to which AMD is entitled as a consequence of the infringement;
- H. enter an order awarding to AMD pre- and post-judgment interest at the maximum rates allowable under the law; and,
- I. enter an order awarding to AMD such other and further relief, whether at law or in equity, that this Court deems just and proper.

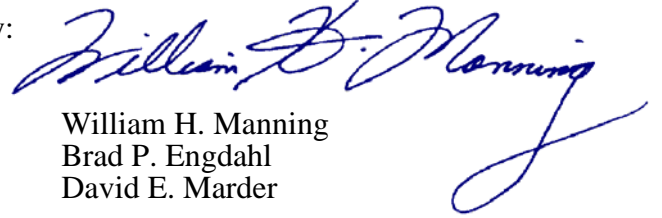
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Respectfully submitted,

DATED: March 9, 2010

ROBINS, KAPLAN, MILLER & CIRESI L.L.P.

By:



William H. Manning
Brad P. Engdahl
David E. Marder

REED SMITH L.L.P.

John P. Bovich

**ATTORNEYS FOR PLAINTIFFS ADVANCED
MICRO DEVICES, INC. AND ATI
TECHNOLOGIES, ULC**

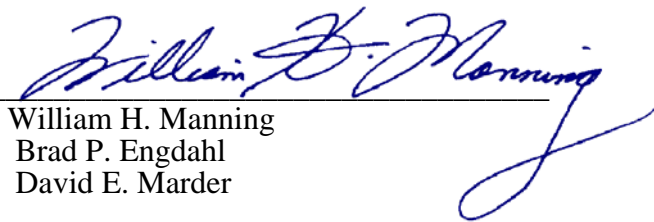
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DEMAND FOR JURY TRIAL

AMD demands a jury trial on all issues so triable.

DATED: March 9, 2010

ROBINS, KAPLAN, MILLER & CIRESI L.L.P.

By: 
William H. Manning
Brad P. Engdahl
David E. Marder

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