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

18 UNITED STATES DISTRICT COURT  
19 NORTHERN DISTRICT OF CALIFORNIA

EMC

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

24 Plaintiffs,

25 v.

26 (1) SAMSUNG ELECTRONICS CO.,  
LTD., a Korean business entity,  
27 (2) SAMSUNG SEMICONDUCTOR,  
INC., a California corporation,  
28 (3) SAMSUNG AUSTIN

ORIGINAL  
FILED

FEB 19 2008

RICHARD W. WIEKING  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

E-filing

CV No. 08 0986

COMPLAINT FOR PATENT  
INFRINGEMENT

[JURY TRIAL DEMANDED]

1 SEMICONDUCTOR, LLC, a Delaware  
 2 limited liability company,  
 3 (4) SAMSUNG ELECTRONICS  
 4 AMERICA, INC., a New York  
 5 corporation,  
 6 (5) SAMSUNG  
 7 TELECOMMUNICATIONS  
 8 AMERICA, LLC, a Delaware limited  
 9 liability company  
 10 Defendants.

11 Plaintiffs Advanced Micro Devices, Inc. and ATI Technologies, ULC (collectively,  
 12 “Plaintiffs” or “AMD”) allege as follows:

13 **INTRODUCTION**

14 This is an action against Samsung Electronics Co., Ltd., and its U.S. subsidiaries and  
 15 related entities Samsung Semiconductor, Inc., Samsung Austin Semiconductor, LLC, Samsung  
 16 Electronics America, Inc. and Samsung Telecommunications America, LLC (collectively  
 17 “Defendants” or “Samsung”), for patent infringement under the Patent Laws of the United States,  
 18 35 U.S.C. § 1 et seq., for infringing U.S. Patent No. 5,545,592, entitled “*Nitrogen Treatment for*  
 19 *Metal-Silicide Contact*”; U.S. Patent No. 4,737,830, entitled “*Integrated Circuit Structure Having*  
 20 *Compensating Means for Self-Inductance Effects*”; U.S. Patent No. 5,248,893, entitled “*Insulated*  
 21 *Gate Field Effect Device with a Smoothly Curved Depletion Boundary in the Vicinity of the*  
 22 *Channel-Free Zone*”; U.S. Patent No. 5,559,990, entitled “*Memories with Burst Mode Access*”;  
 23 and U.S. Patent No. 5,377,200, entitled “*Power Saving Feature for Components Having Built-In*  
 24 *Testing Logic*,” all owned by Advanced Micro Devices, Inc.; and U.S. Patent No. 6,784,879,  
 25 entitled “*Method and Apparatus for Providing Control of Background Video*,” owned by  
 26 Advanced Micro Devices, Inc.’s subsidiary, ATI Technologies, ULC. Collectively, the patents  
 27 generally cover methods of semiconductor chip fabrication; semiconductors of certain  
 28 composition, logic, or design; and consumer products incorporating or embodying the disclosed  
 inventions.

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**THE PARTIES**

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

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

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

13 4. Samsung Semiconductor, Inc. ("SSI") is a California corporation with its principal  
14 place of business located at 3655 North First Street, San Jose, California 95134. On information  
15 and belief, SSI is a wholly owned subsidiary of SEC and was established in 1983 as a California  
16 corporation with approximately 300 employees in the Americas. On information and belief, SSI is  
17 the sales arm for SEC and sells flash, DRAM, graphics memory, and other memory components;  
18 conducts primary market and product research for SEC; and enables regional customers to  
19 influence the direction of SEC's future technologies and products.

20 5. Samsung Austin Semiconductor, LLC ("SAS") is a Delaware limited liability  
21 company with its principal place of business at 12100 Samsung Boulevard, Austin, Texas 78754.  
22 On information and belief, SAS is one of Samsung's semiconductor fabrication facilities located  
23 around the world.

24 6. Samsung Electronics America, Inc. ("SEA") is a New York corporation with its  
25 principal place of business at 105 Challenger Road, Ridgefield Park, New Jersey 07660. On  
26 information and belief, SEA was formed in 1977 as a subsidiary of SEC, and markets, sells, or  
27 offers for sale a variety of consumer electronics, including TVs, VCRs, DVD and MP3 players,  
28 video cameras, vacuum cleaners, and air conditioners, as well as memory chips and computer

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1 accessories, such as printers, monitors, hard disk drives, and DVD/CD-ROM drives. On  
2 information and belief, SEA also manages the North American operations of Samsung  
3 Telecommunications America, Samsung Electronics Canada, and Samsung Electronics Mexico.

4 7. Samsung Telecommunications America, LLC (“STA”) is a Delaware limited  
5 liability company with its principal place of business at 1301 East Lookout Drive, Richardson,  
6 Texas 75081. On information and belief, STA was founded in 1996 as a subsidiary of SEC, and  
7 markets, sells, or offers for sale a variety of personal and business communications devices in the  
8 United States, including cell phones.

9 **JURISDICTION**

10 8. This is an action for patent infringement, over which this Court has subject matter  
11 jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

12 9. This Court has personal jurisdiction over each of the Defendants consistent with  
13 the requirements of California Code of Civil Procedure § 410.10 and the Due Process Clause of the  
14 United States Constitution. Each Defendant transacts substantial business in California (and in this  
15 district), or has committed and continues to commit acts of patent infringement in California (and  
16 in this district) as alleged in this complaint. In addition, SSI in particular maintains a regular and  
17 established place of business at 3655 North 1st Street, San Jose, California, 95134.

18 **VENUE**

19 10. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b) and (c) and  
20 1400(b) because Defendants reside in this judicial district. Further, SSI has committed acts of  
21 infringement and has a regular established place of business in this district.

22 **INTRADISTRICT ASSIGNMENT**

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

25 **FACTUAL BACKGROUND**

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

- 1 (a) U.S. Patent No. 5,545,592, entitled "*Nitrogen Treatment for Metal-Silicide*  
2 *Contact*," which was duly and legally issued on August 13, 1996, from a patent  
3 application filed February 24, 1995, with John Iacoponi as the named inventor.  
4 Among other things, the Iacoponi '592 patent discloses an improved method of  
5 forming a contact point in a semiconductor device.
- 6 (b) U.S. Patent No. 4,737,830, entitled "*Integrated Circuit Structure Having*  
7 *Compensating Means for Self-Inductance Effects*," which was duly and legally  
8 issued on April 12, 1988, from a patent application filed January 8, 1986, with  
9 Bharat Patel as the lead named inventor. Among other things, the Patel '830  
10 patent discloses an improved integrated circuit wherein self-inductive voltage  
11 spikes are reduced through the use of capacitance means constructed beneath at  
12 least one bus.
- 13 (c) U.S. Patent No. 5,248,893, entitled "*Insulated Gate Field Effect Device with a*  
14 *Smoothly Curved Depletion Boundary in the Vicinity of the Channel-Free Zone*,"  
15 which was duly and legally issued on September 28, 1993, from a patent  
16 application filed January 5, 1993, with Shinichi Sakamoto as the named inventor.  
17 Among other things, the Sakamoto '893 patent discloses an insulated gate field  
18 effect device with a smoothly curved depletion boundary in the vicinity of the  
19 channel-free zone.
- 20 (d) U.S. Patent No. 5,559,990, entitled "*Memories with Burst Mode Access*," which  
21 was duly and legally issued on September 24, 1996, from a patent application filed  
22 October 24, 1994, with Pearl Cheng as the lead named inventor. Among other  
23 things, the Cheng '990 patent discloses a memory employing multiple sub-arrays  
24 that facilitates faster burst-mode access.
- 25 (e) U.S. Patent No. 5,377,200, entitled "*Power Saving Feature for Components*  
26 *Having Built-In Testing Logic*," which was duly and legally issued on December  
27 27, 1994, from a patent application filed August 27, 1992, with Michael Pedneau  
28 as the named inventor. Among other things, the Pedneau '200 patent discloses an

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1 improvement to built-in testing in an electronic component, in particular the ability  
2 to reduce or remove the power applied to testing circuits when not in use.

3 (f) U.S. Patent No. 6,784,879, entitled "*Method and Apparatus for Providing Control*  
4 *of Background Video*," which was duly and legally issued on August 31, 2004,  
5 from a patent application filed July 14, 1997, with Stephen Orr as the named  
6 inventor. Among other things, the Orr '879 patent discloses a method and  
7 apparatus for control of background video on a display, which allows the user to  
8 control attributes of the video, such as volume, for example, while the video  
9 continues to play in the background and another application remains in focus on  
10 the display.

11 13. Each of the AMD Patents is valid and enforceable.

12 14. The Defendants have actual notice of all of the AMD Patents and the infringement  
13 alleged herein at least upon filing of this complaint (if not earlier), pursuant to 35 U.S.C. § 287(a).  
14 On information and belief, Defendants had prior actual notice of at least the Iacoponi '592 patent  
15 no later than April 2006 and the Patel '830 patent no later than March 31, 2003.

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

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

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

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1 (c) contribute to or actively induce infringement of the AMD Patents.

2 16. The above-described acts of infringement committed by Defendants have caused  
3 injury and damage to AMD, and as to unexpired patents, will cause additional severe and  
4 irreparable injury and damages in the future unless the Defendants are enjoined from further  
5 infringing the AMD Patents.

6 **FIRST CLAIM FOR RELIEF**

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

8 17. AMD incorporates by reference the allegations set forth in paragraphs 1 through  
9 16 above as if specifically set forth herein.

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

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

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

28

**SECOND CLAIM FOR RELIEF**

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

21. AMD incorporates by reference the allegations set forth in paragraphs 1 through 20 above as if specifically set forth herein.

22. Defendants have directly, indirectly, contributorily, and/or by inducement infringed one or more claims of the Patel '830 patent, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271. The infringing products include but are not limited to, for example, Samsung's DRAM and SRAM memory chips, as well as any and all products that incorporate such memory chips or any other memory chips practicing or embodying the claimed invention.

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

24. On information and belief, Defendants had actual knowledge of the Patel '830 patent since at least as early as March 31, 2003, when during licensing negotiations AMD presented Defendants with a detailed PowerPoint presentation outlining how Defendants' products specifically infringed claims of the Patel '830 patent. Despite Plaintiffs' demand that Defendants either license the Patel '830 patent or cease their infringement, Defendants instead opted to continue their willful, deliberate, and intentional infringement of one or more claims of said patent.

**THIRD CLAIM FOR RELIEF**

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

25. AMD incorporates by reference the allegations set forth in paragraphs 1 through 24 above as if specifically set forth herein.

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

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

5 **FOURTH CLAIM FOR RELIEF**

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

7 28. AMD incorporates by reference the allegations set forth in paragraphs 1 through  
8 27 above as if specifically set forth herein.

9 29. Defendants have directly, indirectly, contributorily, and/or by inducement  
10 infringed one or more claims of the Cheng '990 patent, literally and/or under the doctrine of  
11 equivalents, in violation of 35 U.S.C. § 271. The infringing products include but are not limited to,  
12 for example, Samsung's memory chips such as the K4T51083QC 512MB 90nm Rev "C" DDR2  
13 SDRAM, as well as cell phones, MP3 players, televisions, printers, and any and all other products  
14 that incorporate this or any other chip embodying the claimed invention. Defendants' infringement  
15 remains ongoing.

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

20 **FIFTH CLAIM FOR RELIEF**

21 **Infringement of U.S. Patent No. 5,377,200**

22 31. AMD incorporates by reference the allegations set forth in paragraphs 1 through  
23 30 above as if specifically set forth herein.

24 32. Defendants have directly, indirectly, contributorily, and/or by inducement  
25 infringed one or more claims of the Pedneau '200 patent, literally and/or under the doctrine of  
26 equivalents, in violation of 35 U.S.C. § 271. The infringing products include but are not limited to,  
27 for example, the S3C2412 Application Processor, as well as cell phones, MP3 players, televisions,  
28

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1 printers, and any and all other products that incorporate the S3C2412 processor or any other  
2 processor embodying the claimed invention. Such infringement remains ongoing.

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

7 **SIXTH CLAIM FOR RELIEF**

8 **Infringement of U.S. Patent No. 6,784,879**

9 34. AMD incorporates by reference the allegations set forth in paragraphs 1 through  
10 33 above as if specifically set forth herein.

11 35. Defendants have directly, indirectly, contributorily, and/or by inducement  
12 infringed one or more claims of the Orr '879 patent, literally and/or under the doctrine of  
13 equivalents, in violation of 35 U.S.C. § 271. The infringing products include but are not limited to,  
14 for example, Samsung's LN-T1953H television, as well as all other Samsung televisions or other  
15 display devices that incorporate or embody the claimed invention. Such infringement remains  
16 ongoing.

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

21 **PRAYER FOR RELIEF**

22 **WHEREFORE**, AMD respectfully requests that this Court:

23 A. enter judgment that each of the Defendants has infringed one or more claims of the  
24 AMD Patents;

25 B. enter judgment that Defendants' infringement of the Iacononi '592 patent and  
26 Patel '830 patent has been willful, deliberate, and intentional;

27 C. enter a preliminary and permanent injunction, pursuant to 35 U.S.C. § 283,  
28 enjoining each of the Defendants, and all of their respective agents, servants, officers, directors,

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1 employees, and all other persons acting in concert with them, directly or indirectly, from any  
2 further acts of infringement, contributory infringement, or inducement of infringement of the non-  
3 expired AMD Patents;

4 D. enter an order, pursuant to 35 U.S.C. § 284, awarding to AMD damages adequate  
5 to compensate for Defendants' infringement of the AMD Patents (and, if necessary, related  
6 accountings), in an amount to be determined at trial, but not less than a reasonable royalty;

7 E. enter an order, pursuant to 35 U.S.C. § 284, trebling damages awarded to AMD to  
8 the extent Defendants' infringement is determined to have been willful;

9 F. enter an order, pursuant to 35 U.S.C. § 285, deeming this to be an "exceptional  
10 case" and thereby awarding to AMD its reasonable attorneys' fees, costs, and expenses;

11 G. enter an order that Defendants account for and pay to AMD the damages to which  
12 AMD is entitled as a consequence of the infringement;

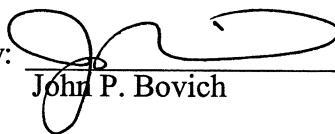
13 H. enter an order awarding to AMD pre- and post-judgment interest at the maximum  
14 rates allowable under the law; and,

15 I. enter an order awarding to AMD such other and further relief, whether at law or in  
16 equity, that this Court deems just and proper.

17 Respectfully submitted,

18 DATED: February 18 2008

19  
20 **REED SMITH LLP**

21 By:   
22 John P. Bovich

23  
24 **ROBINS, KAPLAN, MILLER & CIRESI L.L.P.**

25 William H. Manning **Lead Counsel**  
26 Brad P. Engdahl  
27 David E. Marder  
28 Richard M. Martinez  
David P. Swenson

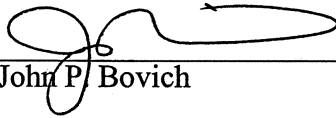
Attorneys for Plaintiffs Advanced Micro  
Devices, Inc. and ATI Technologies, ULC

**DEMAND FOR JURY TRIAL**

AMD demands a jury trial on all issues so triable.

DATED: February 18, 2008

**REED SMITH LLP**

By:   
John P. Bovich

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