

UNITED STATES DISTRICT COURT FOR THE  
WESTERN DISTRICT OF WISCONSIN

---

WISCONSIN ALUMNI RESEARCH  
FOUNDATION,

Plaintiff,

Case No. 14-cv-0062

v.

DEMAND FOR JURY TRIAL

APPLE INC.,

Defendant.

---

**COMPLAINT**

---

Plaintiff Wisconsin Alumni Research Foundation, by its undersigned counsel, for its complaint against defendant Apple Inc., states as follows, with knowledge as to its own acts, and on information and belief as to the acts of others:

**I. INTRODUCTION**

1. This is an action for infringement of a patent awarded to computer scientists for their work at the University of Wisconsin—Madison. The patent is owned by the plaintiff, Wisconsin Alumni Research Foundation (“WARF”), the designated patent management organization of the University of Wisconsin – Madison. WARF’s mission is to support research and scholarship at the University. Since 1925, WARF has used the revenue from patents developed by University researchers to support the University’s on-going educational and research work.

2. The patent-in-suit is United States Patent No. 5,781,752 (the “752 patent”), entitled “Table Based Data Speculation Circuit for Parallel Processing Computer” to Andreas Moshovos, Scott Breach, Terani Vijaykumar, and Gurindar Sohi. The inventors are leading researchers in the field of computer microprocessor architecture. Their work at the University of Wisconsin—Madison, particularly the work for which they were awarded the patent-in-suit, has

significantly improved the efficiency and performance of contemporary computer processors. This work has been recognized as a major milestone in the field of computer microprocessor architecture/design. Indeed, Dr. Sohi, the leader of the lab that developed the '752 patent, has been elected to the National Academy of Engineering based on his work in the field of computer architecture. And in 2011 he received the computer architecture community's most prestigious award, the Eckert-Mauchly Award, also based on his work, including specifically the work in the '752 patent. Another inventor, Dr. Moshovos, received the prestigious Maurice Wilkes award from the Association for Computing Machinery, for outstanding contribution to computer architecture by an individual in the profession 20 years or less, for his work in the '752 patent.

3. WARF is informed and believes, and on this basis alleges, that Apple is one of the largest makers of smart phones and tablet computers in the world.

4. WARF is informed and believes, and on this basis alleges, that Apple's newest products—including the iPhone 5S, the iPad Air, and the iPad Mini with Retina Display—each use Apple's newest A7 processor.

5. WARF is informed and believes, and on this basis alleges, that Apple has incorporated the technology of WARF's '752 patent into the A7 processor to achieve enhanced efficiency and performance. WARF now asks this Court to prevent Apple's unauthorized use of the '752 patent.

## **II. PARTIES**

6. Plaintiff WARF is a not-for-profit Wisconsin corporation having its principal place of business at 614 Walnut Street, Madison, Wisconsin 53726. WARF is the designated patent management organization of the University of Wisconsin – Madison (the "University"). WARF's mission is to support research at the University. WARF carries out this mission by patenting and licensing University inventions and by returning the proceeds of that licensing to fund additional research at the University.

7. Apple Inc. ("Apple" or "Defendant") is a California corporation which has its principal place of business at 1 Infinite Loop, Cupertino, CA 95014.

### **III. JURISDICTION AND VENUE**

8. Subject matter jurisdiction is based on 28 U.S.C. § 1338, in that this action arises under federal statute, the patent laws of the United States (35 U.S.C. §§ 1, *et seq.*).

9. The Court has personal jurisdiction over Apple pursuant to Wis. Stat. § 801.05(1) because Apple is engaged in substantial and not isolated activities in this state and judicial district, including maintaining a retail store and employees here. Personal jurisdiction over Apple is also proper under Wis. Stat. § 801.05(3) because Apple has sold products that infringe WARF's patent rights in this state and judicial district. Personal jurisdiction over Apple is also proper under Wis. Stat. § 801.05(4) because WARF has suffered injury within this state and judicial district while Apple has carried on solicitation and service activities here and while products manufactured by Apple were used here. This Court's exercise of personal jurisdiction over Apple comports with the Due Process Clause of the United States Constitution.

10. Venue lies in this Court pursuant to 28 U.S.C. §§ 1391(b) and (c) and § 1400(a) and (b). Because Apple is subject to personal jurisdiction in this district, it is thus deemed to reside in this district under § 1391(c)(2), and thus venue is proper under § 1391(b)(1). Further, under § 1391(b)(2), a substantial part of the events giving rise to this claim occurred in this district, including but not limited to the development of the invention claimed in the patent that is the subject of this action and the prosecution of that patent, and because WARF resides in this district. Venue is also proper in this district under § 1400(a) and (b) because Apple is deemed to reside in this district, and also under § 1400(b) because Apple has committed acts of infringement in this district and maintains a regular and established place of business in this district.

### **IV. FACTUAL ALLEGATIONS**

11. On July 14, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,781,752 (hereinafter "the '752 patent") entitled "Table Based Data Speculation Circuit for Parallel Processing Computer" to Andreas Moshovos, Scott Breach,

Terani Vijaykumar, and Gurindar Sohi. A true and correct copy of the '752 patent is attached hereto as Exhibit A.

12. WARF is the owner of all rights, title, and interest in the '752 patent by assignment and thereby is authorized and has standing to bring legal action to enforce all rights arising under the '752 patent.

13. In general, the '752 patent discloses a "predictor circuit [that] permits advanced execution of instructions depending for their data on previous instructions by predicting such dependencies based on previous mis-speculations . . . ."

14. The invention disclosed and claimed in the '752 patent was the result of the labor and ingenuity of the four named inventors of the '752 patent, Drs. Moshovos, Breach, Vijaykumar and Sohi, at the University of Wisconsin.

15. The invention disclosed and claimed in the '752 patent has been recognized by those in the art as a major milestone in the field of computer microprocessing.

16. Since the issuance of the '752 patent, Apple has filed one or more patent applications that cite the '752 patent as relevant prior art.

17. Apple has stated that it is the policy of the company not to accept or consider proposals regarding licensing from outside entities like WARF for any purpose, making the initiation of this lawsuit a necessity.

**V. COUNT ONE: INFRINGEMENT OF U.S. PATENT NO. 5,781,752**

18. WARF incorporates by reference the foregoing paragraphs of this Complaint.

19. WARF is informed and believes, and on this basis alleges, that Defendant has been, and currently is, making, using, selling, offering to sell, importing and/or exporting processors that infringe claims of the '752 patent, including the Apple A7 processor.

20. WARF is informed and believes, and on this basis alleges, that the A7 processor is designed by Apple, manufactured by Apple or its agents, and is sold exclusively in Apple devices.

21. WARF is informed and believes, and on this basis alleges, that Defendant, or an agent of Defendant acting under Defendant's direction and control, has been, and currently is, infringing the '752 patent in violation of 35 U.S.C. § 271 and all causes of action thereunder, by making, using, selling, offering to sell in this judicial district and elsewhere throughout the United States, and importing into, and exporting from, the United States, without license or authority from WARF, infringing products, including at least the A7 processor, and the iPhone 5S, the iPad Air, and the iPad Mini with Retina Display, which themselves include the A7 processor, as well as any other device that includes the A7 processor (collectively, the "Accused Products"), to the damage and injury of WARF.

22. WARF is informed and believes, and on this basis alleges, that Defendant has been, and currently is, inducing infringement of the '752 patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding third parties to make, use, sell, or offer to sell infringing products in the United States, or to import infringing products into the United States, without license or authority from WARF, including at least the Accused Products. Defendant has been aware of the '752 patent, as evidenced by, *inter alia*, Defendant's citation of the '752 patent in its own patent filings. WARF is informed and believes, and on this basis alleges, that despite Defendant's awareness of the '752 patent, and despite its awareness that the '752 patent is relevant to the technology disclosed in Defendant's own patent filings, Defendant has intentionally aided and encouraged third parties (including its customers) to use Accused Products in the United States and has intentionally aided and encouraged third parties (including its vendors and contractors) to make Accused Products in the United States, having known that the acts it was causing would be infringing.

23. WARF is informed and believes, and on this basis alleges, that Defendant has been, and currently is, contributorily infringing the '752 patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale to third parties, in this judicial district and throughout the United States, components that embody a material part of the inventions described in the '752 patent, are known by Defendant to be especially made or especially adapted for use in

infringement of the '752 patent, and are not staple articles of commodities suitable for substantial, non-infringing use, including at least the Accused Products. Defendant has done so without license or authority from WARF.

24. WARF is informed and believes, and on this basis alleges, that these third parties have infringed and will infringe the '752 patent by using the infringing products in violation of 35 U.S.C. § 271(a).

25. WARF is informed and believes, and on this basis alleges, that the acts of infringement by Defendant have been, and continue to be, willful, intentional, and in conscious disregard of WARF's rights in the '752 patent.

26. Unless enjoined by this Court, Defendant will continue to infringe the '752 patent.

27. As a direct and proximate result of Defendant's infringement of the '752 patent, WARF has suffered and will continue to suffer irreparable injury for which there is no adequate remedy at law. WARF has also been damaged and, until an injunction issues, will continue to be damaged in an amount yet to be determined.

## **VI. PRAYER FOR RELIEF**

**WHEREFORE**, Wisconsin Alumni Research Foundation prays for relief as follows:

- A. A judgment that the '752 patent is infringed by Defendant;
- B. A judgment that the '752 patent is valid and enforceable;
- C. A judgment that Defendant's infringement of the '752 patent is willful;
- D. An order preliminarily and permanently enjoining Defendant and its subsidiaries, parents, officers, directors, agents, servants, employees, affiliates, attorneys and all others in active concert or participation with any of the foregoing, from further acts of infringement of the '752 patent;
- E. An accounting for damages resulting from Defendant's infringement of the '752 patent and the trebling of such damages because of the willful nature of Defendant's infringement;
- F. An assessment of interest on damages;

G. A judgment awarding damages to WARF for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecuting this action, with interest, including damages for an exceptional case pursuant to 35 U.S.C. § 285 and as otherwise provided by law;

H. Such other and further relief as this Court may deem just and equitable.

**VII. DEMAND FOR JURY TRIAL**

28. Pursuant to Fed. R. Civ. P. 38(b), WARF requests a trial by jury on all issues.

Dated this 31st day of January, 2014.

*s/ Jennifer L. Gregor*

---

Jennifer L. Gregor  
GODFREY & KAHN, S.C.  
One East Main Street, Suite 500  
Madison, WI 53703  
Phone: 608-257-3911  
Fax: 608-257-0609  
JGregor@gklaw.com

Morgan Chu  
Gary Frischling  
Jason Sheasby  
IRELL & MANELLA LLP  
1800 Avenue of the Stars, Suite 900  
Los Angeles, CA 90067-4276  
Tel: 310-277-1010  
Mchu@irell.com; GFrischling@irell.com;  
JSheasby@irell.com

*Attorneys for Plaintiff Wisconsin Alumni Research  
Foundation*

OF COUNSEL:

Alan Heinrich (CA#212782)  
IRELL & MANELLA LLP  
1800 Avenue of the Stars, Suite 900  
Los Angeles, CA 90067-4276  
310-277-1010  
AHeinrich@irell.com