

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

ZIILABS INC., LTD.,

Plaintiff,

V.

SAMSUNG ELECTRONICS CO. LTD.;
SAMSUNG ELECTRONICS AMERICA,
INC.; SAMSUNG TELECOMMUNICATIONS
AMERICA, LLC; SAMSUNG AUSTIN
SEMICONDUCTOR, LLC; and APPLE INC.

Defendants.

Case No. 2:14-CV-203

Jury Trial Requested

**ZIILABS INC., LTD.'S SECOND AMENDED COMPLAINT
FOR PATENT INFRINGEMENT**

Plaintiff ZiiLabs Inc., Ltd. (“ZiiLabs” or “Plaintiff”) hereby submits this First Amended Complaint against Defendants Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America, LLC, Samsung Austin Semiconductor, LLC, and Apple Inc. (collectively “Defendants”) and states as follows:

THE PARTIES

1. ZiiLabs is a Bermuda corporation, with its registered office at Clarendon House, 2 Church Street, Hamilton, HM11 Bermuda.
2. ZiiLabs is the assignee and owner of the patents at issue in this action, United States Patent Nos. 5,831,637 (“the ‘637 Patent”), 5,835,096 (“the ‘096 Patent”), 6,111,584 (“the ‘584 Patent”), 6,683,615 (“the ‘615 Patent”), 6,977,649 (“the ‘649 Patent”), 7,050,061 (“the ‘061

Patent”), 7,187,383 (“the ‘383 Patent”), 7,710,425 (“the ‘425 Patent”), and 8,144,156 (“the ‘156 Patent”). These patents are referred to collectively as the “Patents-in-suit.”

3. ZiiLabs is informed and believes, and on that basis alleges, that Defendant Samsung Electronics Co. Ltd. is a corporation organized and existing under the laws of Republic of Korea, having a principal place of business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Republic of Korea.

4. ZiiLabs is informed and believes, and on that basis alleges, that Samsung Electronics America, Inc. is a wholly-owned subsidiary of Samsung Electronics Co. Ltd. and is incorporated under the laws of New York, having a principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660. Samsung Electronics America, Inc. may be served through its registered agent of process, CT Corporation System, at 1999 Bryan Street, Suite 900, Dallas, TX 75201.

5. ZiiLabs is informed and believes, and on that basis alleges, that Samsung Telecommunications America, LLC (“STA”) is a wholly-owned subsidiary of Samsung Electronics Co. Ltd. and is incorporated under the laws of Delaware, having a principal place of business at 1301 E. Lookout Dr., Richardson, Texas 75082. STA may be served through its registered agent of process, Corporation Service Company, dba CSC – Lawyers Inco, 211 E. 7th Street, Suite 620, Austin, TX 78701.

6. ZiiLabs is informed and believes, and on that basis alleges, that Samsung Austin Semiconductor, LLC (“SAS”) a wholly-owned subsidiary of Samsung Electronics Co. Ltd. and is a Delaware limited liability company with its principal place of business at 12100 Samsung Boulevard, Austin, Texas 78754. SAS may be served through its registered agent of process, CT Corporation System, at 1999 Bryan Street, Suite 900, Dallas, TX 75201.

7. ZiiLabs collectively refers herein to Defendants Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America, LLC, and Samsung Austin Semiconductor, LLC as “Samsung.”

8. ZiiLabs is informed and believes, and on that basis alleges, that Apple Inc. (“Apple”) is a California corporation with its principal place of business at 1 Infinite Loop, Cupertino, California 95014. Apple may be served through its registered agent of process, CT Corporation System, at 1999 Bryan Street, Suite 900, Dallas, TX 75201.

JURISDICTION AND VENUE

9. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 101 *et seq.*

10. Venue is proper in this federal district pursuant to 28 U.S.C. §§ 1391(b)-(c) and 1400(b) in that Defendants have done business in this District, have facilities in this District, have committed acts of infringement in this District, and continue to commit acts of infringement in this District, entitling ZiiLabs to relief.

11. In particular, Samsung Telecommunications America, LLC is headquartered in the Eastern District of Texas. On information and belief, STA develops, assembles, and markets the accused Samsung mobile products, including smartphones and tablets. In addition, Samsung Austin Semiconductor, LLC is headquartered in Austin, Texas. SAS manufactures many of the accused systems on chip (“SoCs”) in Austin, within the subpoena power of the Eastern District of Texas. The SoCs manufactured and sold by Samsung to Apple include computer systems, graphics processing systems, and graphics processors that infringe the ZiiLabs Patents-in-suit.

Upon information and belief, many of the infringing SoCs sold by Samsung to Apple are manufactured in Austin, Texas

12. Apple has additional contacts with the state of Texas. Apple has a large facility in Austin, Texas that houses over 3500 employees, and Apple received large tax incentives from the State to build its Austin facilities. On information and belief, Apple also manufactures some of the accused products in Austin, including the Mac Pro desktop computer.

13. Samsung and Apple are properly joined in this lawsuit because Samsung manufactures and sells to Apple the SoCs found in the accused Apple mobile devices. Upon information and belief, many of the SoCs sold by Samsung to Apple are manufactured in Austin, Texas.

INFRINGEMENT OF U.S. PATENT NO. 5,831,637

14. On November 3, 1998, United States Patent No. 5,831,637 was duly and legally issued for inventions entitled “Video Stream Data Mixing for 3D Graphics Systems.” ZiiLabs was assigned the ‘637 Patent and continues to hold all rights and interest in the ‘637 Patent. A true and correct copy of the ‘637 Patent is attached hereto as Exhibit 1.

15. Samsung has directly infringed and continues to directly infringe one or more of the claims of the ‘637 Patent by its manufacture and sale of the Apple A4, A5, A6, A6X, and A7 SoCs with graphics processing systems, which on information and belief are incorporated into the Phone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the ‘637 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other

products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, and all other similar devices.

16. Apple has directly infringed and continues to directly infringe one or more of the claims of the '637 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices.

17. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '637 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 5,835,096

18. On November 10, 1998, United States Patent No. 5,835,096 was duly and legally issued for inventions entitled "Rendering System Using 3D Texture-Processing Hardware for Accelerated 2D Rendering." ZiiLabs was assigned the '096 Patent and continues to hold all

rights and interest in the '096 Patent. A true and correct copy of the '096 Patent is attached hereto as Exhibit 2.

19. Samsung has directly infringed and continues to directly infringe one or more of the claims of the '096 Patent by its manufacture and sale of Apple A4, A5, A6, A6X, and A7 SoCs, which on information and belief are incorporated into the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the '096 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, and all other similar devices.

20. Apple has directly infringed and continues to directly infringe one or more of the claims of the '096 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices.

21. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '096 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '096 Patent and to use methods that infringe the '096 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States and the use of infringing methods in the United States.

22. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '096 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 6,111,584

23. On August 29, 2000, United States Patent No. 6,111,584 was duly and legally issued for inventions entitled "Rendering System with Mini-Patch Retrieval from Local Texture Storage." ZiiLabs was assigned the '584 Patent and continues to hold all rights and interest in the '584 Patent. A true and correct copy of the '584 Patent is attached hereto as Exhibit 3.

24. Samsung has directly infringed and continues to directly infringe one or more of the claims of the '584 Patent by its manufacture and sale of Apple A4, A5, A6, A6X, and A7 SoCs, which on information and belief are incorporated into the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, , iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the '584 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, Chromebook, Chromebook 3G, ATIV Book 6, ATIV Book 8, ATIV One 5 Style, ATIV Book 9 Lite, Series 3 Notebook, NP365E5C, ATIV Book 2, and all other similar devices.

25. Apple has directly infringed and continues to directly infringe one or more of the claims of the '584 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, iMac Core i5 2.9 21.5", iMac Core i5 3.2 27", iMac Core i5 3.4 27", iMac Core i7 3.1 21.5", iMac Core i7 3.5 27", MacBook Pro Core i7 2.3 15", MacBook Pro Core i7 2.6 15",

Mac Pro Quad Core 3.7, Mac Pro Six Core 3.5, Mac Pro Eight Core 3.0, Mac Pro Twelve Core 2.7, and all other similar devices.

26. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '584 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '584 Patent and to use methods that infringe the '584 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States and the use of infringing methods in the United States.

27. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '584 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 6,683,615

28. On January 27, 2004, United States Patent No. 6,683,615 was duly and legally issued for inventions entitled "Doubly-Virtualized Texture Memory." ZiiLabs was assigned the

'615 Patent and continues to hold all rights and interest in the '615 Patent. A true and correct copy of the '615 Patent is attached hereto as Exhibit 5.

29. Samsung has indirectly infringed and continues to indirectly infringe one or more of the claims of the '615 Patent by its manufacture and sale of Apple A4, A5, A6, A6X, and A7 processors, which on information and belief are incorporated into the directly infringing iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the '615 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, Chromebook, Chromebook 3G, ATIV Book 6, ATIV Book 8, ATIV One 5 Style, ATIV Book 9 Lite, Series 3 Notebook, NP365E5C, ATIV Book 2, and all other similar devices.

30. Apple has directly infringed and continues to directly infringe one or more of the claims of the '615 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th

Generation, iMac Core i5 2.9 21.5", iMac Core i5 3.2 27", iMac Core i5 3.4 27", iMac Core i7 3.1 21.5", iMac Core i7 3.5 27", MacBook Pro Core i7 2.3 15", MacBook Pro Core i7 2.6 15", Mac Pro Quad Core 3.7, Mac Pro Six Core 3.5, Mac Pro Eight Core 3.0, Mac Pro Twelve Core 2.7, and all other similar devices.

31. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '615 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '615 Patent and to use methods that infringe the '615 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States and the use of infringing methods in the United States.

32. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '615 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 6,977,649

33. On December 20, 2005, United States Patent No. 6,977,649 was duly and legally issued for inventions entitled “3D Graphics Rendering with Selective Read Suspend.” ZiiLabs was assigned the ‘649 Patent and continues to hold all rights and interest in the ‘649 Patent. A true and correct copy of the ‘649 Patent is attached hereto as Exhibit 6.

34. Samsung has directly and indirectly infringed and continues to directly and indirectly infringe one or more of the claims of the ‘649 Patent by its manufacture and sale of directly infringing Apple A4, A5, A6, A6X, and A7, which on information and belief are incorporated into the directly infringing iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the ‘649 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, Chromebook, Chromebook 3G, ATIV Book 6, ATIV Book 8, ATIV One 5 Style, ATIV Book 9 Lite, Series 3 Notebook, NP365E5C, ATIV Book 2, and all other similar devices.

35. Apple has directly infringed and continues to directly infringe one or more of the claims of the '649 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, iMac Core i5 2.9 21.5", iMac Core i5 3.2 27", iMac Core i5 3.4 27", iMac Core i7 3.1 21.5", iMac Core i7 3.5 27", MacBook Pro Core i7 2.3 15", MacBook Pro Core i7 2.6 15", Mac Pro Quad Core 3.7, Mac Pro Six Core 3.5, Mac Pro Eight Core 3.0, Mac Pro Twelve Core 2.7, and all other similar devices.

36. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '649 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '649 Patent and to use methods that infringe the '649 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States and the use of infringing methods in the United States.

37. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs'

exclusive rights under the '649 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 7,050,061

38. On May 23, 2006, United States Patent No. 7,050,061 was duly and legally issued for inventions entitled "Autonomous Address Translation in Graphic Subsystem." ZiiLabs was assigned the '061 Patent and continues to hold all rights and interest in the '061 Patent. A true and correct copy of the '061 Patent is attached hereto as Exhibit 7.

39. Samsung has directly infringed and continues to directly infringe one or more of the claims of the '061 Patent by its manufacture and sale of Apple A4, A5, A6, A6X, and A7, which on information and belief are incorporated into the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the '061 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, Chromebook, Chromebook 3G, ATIV Book

6, ATIV Book 8, ATIV One 5 Style, ATIV Book 9 Lite, Series 3 Notebook, NP365E5C, ATIV Book 2, and all other similar devices.

40. Apple has directly infringed and continues to directly infringe one or more of the claims of the '061 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, iMac Core i5 2.9 21.5", iMac Core i5 3.2 27", iMac Core i5 3.4 27", iMac Core i7 3.1 21.5", iMac Core i7 3.5 27", MacBook Pro Core i7 2.3 15", MacBook Pro Core i7 2.6 15", Mac Pro Quad Core 3.7, Mac Pro Six Core 3.5, Mac Pro Eight Core 3.0, Mac Pro Twelve Core 2.7, and all other similar devices.

41. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '061 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 7,187,383

42. On March 6, 2007, United States Patent No. 7,187,383 was duly and legally issued for inventions entitled "Yield Enhancement of Complex Chips." ZiiLabs was assigned the '383 Patent and continues to hold all rights and interest in the '383 Patent. A true and correct copy of the '383 Patent is attached hereto as Exhibit 8.

43. Samsung has directly infringed and continues to directly infringe one or more claims of the '383 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing computers, including but not limited to the Chromebook, Chromebook 3G, ATIV Book 6, ATIV Book 8, ATIV One 5 Style, ATIV Book 9 Lite, Series 3 Notebook, NP365E5C, ATIV Book 2, and all other similar devices.

44. Apple has directly infringed and continues to directly infringe one or more of the claims of the '383 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing computers, including but not limited to the iMac Core i5 2.9 21.5", iMac Core i5 3.2 27", iMac Core i5 3.4 27", iMac Core i7 3.1 21.5", iMac Core i7 3.5 27", MacBook Pro Core i7 2.3 15", MacBook Pro Core i7 2.6 15", Mac Pro Quad Core 3.7, Mac Pro Six Core 3.5, Mac Pro Eight Core 3.0, Mac Pro Twelve Core 2.7, and all other similar devices.

45. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '383 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '383 Patent and to use methods that infringe the '383 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States and the use of infringing methods in the United States.

46. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '383 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 7,710,425

47. On May 4, 2010, United States Patent No. 7,710,425 was duly and legally issued for inventions entitled "Graphic Memory Management with Invisible Hardware-Managed Page Faulting." ZiiLabs was assigned the '425 Patent and continues to hold all rights and interest in the '425 Patent. A true and correct copy of the '425 Patent is attached hereto as Exhibit 9.

48. Samsung has directly and indirectly infringed and continues to directly and indirectly infringe one or more of the claims of the '425 Patent by its manufacture and sale of directly infringing Apple A4, A5, A6, A6X, and A7, which on information and belief are incorporated into the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more claims of the '425 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus,

Galaxy S3, Galaxy S3 mini, Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, Chromebook, Chromebook 3G, ATIV Book 6, ATIV Book 8, ATIV One 5 Style, ATIV Book 9 Lite, Series 3 Notebook, NP365E5C, ATIV Book 2, and all other similar devices.

49. Apple has directly infringed and continues to directly infringe one or more of the claims of the '425 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, iMac Core i5 2.9 21.5", iMac Core i5 3.2 27", iMac Core i5 3.4 27", iMac Core i7 3.1 21.5", iMac Core i7 3.5 27", MacBook Pro Core i7 2.3 15", MacBook Pro Core i7 2.6 15", Mac Pro Quad Core 3.7, Mac Pro Six Core 3.5, Mac Pro Eight Core 3.0, Mac Pro Twelve Core 2.7, and all other similar devices.

50. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '425 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '425 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States.

51. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '425 Patent by Defendants has damaged and will continue to damage ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

INFRINGEMENT OF U.S. PATENT NO. 8,144,156

52. On March 27, 2012, United States Patent No. 8,144,156 was duly and legally issued for inventions entitled "Sequencer with Async SIMD Array." ZiiLabs was assigned the '156 Patent and continues to hold all rights and interest in the '156 Patent. A true and correct copy of the '156 Patent is attached hereto as Exhibit 10.

53. Samsung has directly infringed and continues to directly infringe one or more of claims 6-20 of the '156 Patent by its manufacture and sale of Apple A4, A5, A6, A6X, and A7, which on information and belief are incorporated into the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices. In addition, Samsung has directly infringed and continues to directly infringe one or more of claims 6-20 of the '156 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and other products, including but not limited to the Galaxy Metrix 4G, Galaxy S Relay 4G, Galaxy Legend, Galaxy Stratosphere II, Galaxy Axiom, Galaxy Stellar, Galaxy Admire 2, Galaxy Express, Galaxy Express GoPhone, ATIV Odyssey, Galaxy Rugby Pro, Galaxy Victory 4G LTE, ATIV S Neo, Galaxy Mega, Galaxy S Aviator, Galaxy S Lightray, Galaxy Nexus, Galaxy S3, Galaxy S3 mini,

Galaxy S4, Galaxy S4 mini, Galaxy Note 2, Galaxy Note 3, Galaxy Note 10.1, Galaxy Note Pro, Galaxy Tab 2, Galaxy Tab 3, Galaxy Tab 7.0, Galaxy Tab Pro, and all other similar devices.

54. Apple has directly infringed and continues to directly infringe one or more of claims 6-20 of the '156 Patent by its manufacture, use, sale, importation, and/or offer to sell its infringing phones, tablets, and computers, including but not limited to the iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, Apple TV 3rd Generation, iPod Nano 7th Generation, iPad Air, iPad Mini 2nd Generation, iPad Mini 1st Generation, iPad 2, iPod Touch 5th Generation, iPod Touch 4th Generation, and all other similar devices.

55. Upon information and belief, at least as of August 2013, when they received actual notice of the ZiiLabs patents, Defendants indirectly infringe one or more claims of the '156 Patent by active inducement under 35 U.S.C. § 271(b). Defendants have induced, caused, urged, encouraged, aided, and abetted their direct and indirect customers to make, use, sell, offer for sale, and/or import products which infringe the '156 Patent and to use methods that infringe the '156 Patent. Defendants have done so by acts including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Such conduct by Defendants was intended to and actually resulted in direct infringement, including the making, using, selling, offering for sale, and/or importation of infringing products in the United States and the use of infringing methods in the United States.

56. The acts of infringement by Defendants have caused damage to ZiiLabs, and ZiiLabs is entitled to recover from Defendants the damages sustained by ZiiLabs as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of ZiiLabs' exclusive rights under the '156 Patent by Defendants has damaged and will continue to damage

ZiiLabs, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

DEFENDANTS' PRIOR KNOWLEDGE OF THE PATENTS-IN-SUIT

57. Samsung has had communications and contact with ZiiLabs and is fully aware of ZiiLabs' technology and patent portfolio, including the Patents-in-suit. For example, on August 7, 2013, ZiiLabs notified Samsung of its portfolio and its applicability to Samsung's products. *See* Exhibit 11. In particular, ZiiLabs informed Samsung that its portfolio may be applicable to a variety of Samsung products, including "various Phones," "various Tablets," and "various laptops."

58. Since at least August 2013, Samsung and ZiiLabs have had continuing communications about the ZiiLabs patent portfolio, including the Patents-in-suit. During that time, Samsung has proceeded to infringe the Patents-in-suit with full and complete knowledge of the patents and their applicability to its products without taking a license under the Patents-in-suit and without a good faith belief that the Patents-in-suit were invalid or not infringed. Thus, Samsung's infringement of the Patents-in-suit is willful and deliberate, entitling ZiiLabs to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

59. ZiiLabs' predecessor-in-interest 3DLabs Inc., Ltd ("3DLabs") had various meetings with Apple as early as 2006 and 2007, including discussion of the patent portfolio that encompasses the Patents-in-Suit. For example, in December 2006, Apple met with executives from 3DLabs pursuant to a non-disclosure agreement. 3DLabs disclosed to Apple executives information about its media processor technology and intellectual property. The parties met again in January 2007, at which time 3DLabs presented its media processor programming model.

On September 5, 2007, 3DLabs executives met again in person with Apple employees and discussed 3DLabs' media processor technology and roadmap.

60. Apple has had further communications and contact with ZiiLabs and is fully aware of ZiiLabs' technology and patent portfolio, including the Patents-in-suit. For example, on August 7, 2013, ZiiLabs notified Apple of its portfolio and its applicability to Apple's products. *See* Exhibit 12. In particular, ZiiLabs informed Apple that its portfolio may be applicable to a variety of Apple products, including "various iPhones," "various iPads," and "various MacBooks."

61. Since at least August 2013, Apple and ZiiLabs have had continuing communications about the ZiiLabs patent portfolio, including the Patents-in-suit. During that time, Apple has proceeded to infringe the Patents-in-suit with full and complete knowledge of the patents and their applicability to its products without taking a license under the Patents-in-suit and without a good faith belief that the Patents-in-suit are invalid or not infringed. Thus, Apple's infringement of the Patents-in-suit is willful and deliberate, entitling ZiiLabs to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

JURY DEMAND

62. ZiiLabs demands a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, ZiiLabs requests entry of judgment in its favor and against Defendants as follows:

- a) A declaration that Defendants have infringed and are infringing U.S. Patent Nos. 5,831,637, 5,835,096, 6,111,584, 6,683,615, 6,977,649, 7,050,061, 7,187,383, 7,710,425, and 8,144,156;
- b) An Order permanently enjoining Defendants, their respective officers, agents, employees, and those acting in privity with them, from further direct and/or indirect infringement of U.S. Patent Nos. 5,831,637, 5,835,096, 6,111,584, 6,683,615, 6,977,649, 7,050,061, 7,187,383, 7,710,425, and 8,144,156;
- c) An award of damages to ZiiLabs arising out of Defendants' infringement of U.S. Patent Nos. 5,831,637, 5,835,096, 6,111,584, 6,683,615, 6,977,649, 7,050,061, 7,187,383, 7,710,425, and 8,144,156, including enhanced damages pursuant to 35 U.S.C. § 284, together with prejudgment and post-judgment interest, in an amount according to proof;
- d) An award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and,
- e) Granting ZiiLabs its costs and further relief as the Court may deem just and proper.

Dated: June 4, 2014

Respectfully submitted,

/s/ Stephen D. Susman (by permission B. Larson)

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ATTORNEYS FOR ZILABS INC., LTD.

CERTIFICATE OF SERVICE

I hereby certify that on June 4, 2014, the above document was served via CM/ECF to all counsel of record.

/s/ Blaine Larson
Blaine Larson

CERTIFICATE OF CONFERENCE

I hereby certify that on June 3 and 4, 2014, counsel for ZiiLabs conferred with counsel for Defendants pursuant to FED. R. CIV. P. 15(a)(2) regarding the filing of ZiiLabs' Second Amended Complaint. Counsel for Defendants gave written consent to ZiiLabs' filing of this Second Amended Complaint.

/s/ Blaine Larson
Blaine Larson