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

INFINEON TECHNOLOGIES AUSTRIA AG,	§	
	§	
Plaintiff,	§	
	§	
v.	§	**Civil Action No. 2:13-cv-684**
	§	
VOLTERRA SEMICONDUCTOR CORPORATION	§	**JURY TRIAL DEMANDED**
	§	
AND	§	
	§	
VOLTERRA ASIA PTE. LTD.,	§	
	§	
Defendants.	§	

ORIGINAL COMPLAINT

Plaintiff, Infineon Technologies Austria AG ("Infineon AG"), by and through its undersigned attorneys, complains of Defendants, Volterra Semiconductor Corporation ("Volterra US") and Volterra Asia Pte. Ltd. ("Volterra Asia") (collectively, "Defendants" or "Volterra"):

PARTIES AND PATENTS

1. Plaintiff Infineon AG is a foreign corporation organized and existing under the laws of Austria having a principal place of business in Villach, Austria.

2. Plaintiff Infineon AG is the assignee of various United States patents relating to electronic components and devices, including United States Patent No. 6,710,441, which concerns power semiconductor switching devices, power converters, integrated circuit assemblies, integrated circuitry, current switching methods, methods of forming a power

semiconductor switching device, power conversions methods, power semiconductor switching, device packaging methods, and methods of forming a power transistor.

3. Upon information and belief, Defendant Volterra US is a Delaware corporation with its principal place of business in Fremont, California, and is engaged in the business of designing, developing and selling analog and mixed-signal power management semiconductors and semiconductor chipsets for the computing, storage, networking, and consumer markets.

4. Defendant Volterra Asia is a wholly owned subsidiary of Volterra International Ltd., which in turn is a wholly owned subsidiary of Defendant Volterra US. Upon information and belief, Defendant Volterra Asia has a principal place of business in the Republic of Singapore, and is engaged in the business of designing, developing and selling analog and mixed-signal power management semiconductors and semiconductor chipsets for the computing, storage, networking, and consumer markets.

JURISDICTION AND VENUE

5. This is an action for patent infringement founded upon the patent laws of the United States 35 U.S.C. § 100 *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has personal jurisdiction over Defendants Volterra US and Volterra Asia, which have, directly and/or through intermediaries, conducted and continue to conduct business in the State of Texas and in this Judicial District. Defendants Volterra US and Volterra Asia directly and/or through intermediaries make, offer for sale, sell, and/or advertise (including through a website) products in the State of Texas and in this Judicial District. Defendants Volterra US and Volterra Asia directly and/or through intermediaries, caused, and/or committed

acts of patent infringement alleged herein within the State of Texas and, more particularly, within this Judicial District. Defendants Volterra US and Volterra Asia purposefully and voluntarily placed their infringing products into the stream of commerce with the expectation that they will be purchased by customers in the State of Texas and in this Judicial District. These infringing products have been and continue to be purchased by customers in the State of Texas and in this Judicial District.

7. Venue is proper in this Judicial District under 28 U.S.C. §§ 1391(b) and 1400(b) because acts and transactions constituting at least a subset of the violations alleged herein occurred in this Judicial District and/or because one or more of Defendants Volterra US and Volterra Asia transact business in this Judicial District. Venue is also proper in this Judicial District under 28 U.S.C. § 1391(c) because Defendants are subject to personal jurisdiction in this District.

GENERAL ALLEGATIONS

8. Defendants Volterra US and Volterra Asia operate though the use of a common website (www.volterra.com). The "Corporate Overview" section of Defendants' website states that, "Volterra Semiconductor Corporation designs, develops and markets proprietary, high-performance analog and mixed-signal power management semiconductors for the computing, storage, networking and consumer markets. Our core products are integrated voltage regulator semiconductors and scalable voltage regulator semiconductor chipsets that transform, regulate, deliver and monitor the power consumed by digital semiconductors. Through our proprietary power system architecture and mixed-signal design techniques, we have integrated power, analog and digital circuits onto a single complementary metal oxide silicon, or CMOS, semiconductor, eliminating the need for a large number of discrete components required by

conventional power management solutions. Our power management solutions are incorporated into products from leading system designers, including Alcatel-Lucent, AMD, Cisco, Dell, Foxconn, Fujitsu, HP, IBM, Inventec, Juniper, Lenovo, nVIDIA, Sony, and Wistron." http://volterra.com/corporate_overview.php

9. Elsewhere on the same page of their website, Defendants claim that their products provide numerous benefits to their customers' products, including: "small form factor," "high performance," "complete system-level solutions," "scalability," and "system management." *Id.*

10. Regarding "small form factor," Defendants claim that, "Our power management solutions take up considerably less space than conventional power management solutions while offering increased performance and functionality. Our proprietary system architecture integrates the functions of controllers, power transistors and drivers found in conventional solutions, and significantly reduces the quantity and size of the remaining external components. Our customers are able to use our solutions to design systems that meet all of their size and performance goals." *Id.*

11. Regarding "high performance," Defendants claim, "Our power management solutions are designed to meet or exceed the demanding power requirements of advanced digital semiconductors. Our products operate at much higher speeds than conventional power management solutions without excessive power dissipation. Our products also measure and control voltages and currents, and are generally more precise than conventional solutions." *Id.*

12. Regarding "complete system-level solutions," Defendants claim, "Our highly integrated products, extensive reference designs and system-level applications expertise enable our customers to incorporate our solutions into electronic systems quickly and easily. Our

system-level solutions offer time-to-market advantages for our customers and enable them to leverage our solutions across various system designs." *Id.*

13. Regarding "scalability," Defendants claim, "Our solutions are scalable and do not require system redesign as digital semiconductors are upgraded over the life of the electronic system platform. As a result, our solutions reduce the complexity, time and cost of system design for our customers." *Id.*

14. Regarding "system management," Defendants claim, "Our solutions provide system-level monitoring and control capabilities that can be used during the design process and in real-time operation without external components. Our products measure and report vital power system information accurately because we integrate measurement and control functions together with power delivery circuitry on the same semiconductor. We enable our customers to obtain this information and control our products to manage power in order to optimize system performance and reliability." *Id.*

15. The "Volterra Products" section of Defendants' website states that it sells products in a number of different product families, including at least: VT200 Family, VT1000 Family, VT300/VT1300 Product Families, and VT500 Family. http://www.volterra.com/products.php Defendants are continually developing new generations of products in these and other product families.

16. Defendants describe their VT200 Family as follows: "**POLs: Integrated Voltage Regulator ICs and Multiphase Chipsets** Volterra's VT200 family consist of a wide range of low to high current switching regulators for end products such as networking and telecommunication equipment, servers, storage systems, graphics cards. With operating input voltages from 3V to 14V, extremely small board area requirements, versatile reference designs

and very high efficiency, these regulators provide a simple, compact solution for point of use power regulation. Solutions range from a 4A regulator requiring only 7 external components to master/slave solutions capable of supplying loads in excess of 100A incorporating industry standard digital interfaces for both control and reporting. This product family offers a wide range of options such as choice of operating frequency, soft start ramp rates, light load efficiency and the ability to sink current." *Id.*

17. Defendants describe their VT1000 Family as follows: "**Multiphase Master and Smart Slaves Chipsets** The VT1000 family provides a high power regulation solution for the exacting demands of CPUs, GPUs and Memory found in servers, storage systems, communication equipment and graphics cards. Featuring versatile Master Controller IC technology and proprietary Smart SlaveTM silicon and packaging technology, Volterra's chipsets provide unparalleled solutions for the highest efficiency and density in the industry. Compliance with industry standards for the application is assured and design time is minimized by using the Volterra reference designs. Accurate control and reporting via serial bus, power state control and operating parameters such as load line are assured by the Master and Smart Slave technologies featuring loss-less current sensing. Due to the flexible multiphase approach, a single electrical design can easily be scaled to be used for different power levels and can be optimized for cost, board area and performance." *Id.*

18. In a press release dated September 19, 2003, Defendants describe Volterra Asia as "a full service centre, providing IC design and development resources, sales and customer support for all customers in Asia, and an operations centre, which manages our supply chain."[1]

[1] Volterra Semiconductor Corporation Announces the Official Opening of its Asia Pacific Regional Headquarter in Singapore - Volterra Asia Pte Ltd, http://www.volterra.com/whatsNew/VolterraNews/09_19_03.htm, captured from http://web.archive.org/web/20040513165409/http://www.volterra.com/whatsNew/VolterraNews/09_19_03.htm on August 26, 2013.

COUNT I

Direct Infringement of U.S. Patent No. 6,710,441

19. Infineon AG repeats and realleges each of the allegations set forth above as though fully set forth herein.

20. Infineon AG is the sole owner of all right, title and interest in and to United States Patent No. 6,710,441 ("the '441 patent"), entitled "POWER SEMICONDUCTOR SWITCHING DEVICES, POWER CONVERTERS, INTEGRATED CIRCUIT ASSEMBLIES, INTEGRATED CIRCUITRY, POWER CURRENT SWITCHING METHODS, METHODS OF FORMING A POWER SEMICONDUCTOR SWITCHING DEVICE, POWER CONVERSION METHODS, POWER SEMICONDUCTOR SWITCHING DEVICE PACKAGING METHODS, AND METHODS OF FORMING A POWER TRANSISTOR," which was duly and legally issued on March 23, 2004. A copy of the '441 patent is attached as Exhibit A.

21. Defendants had knowledge of the '441 patent by at least June 12, 2012.

22. Upon information and belief, Defendants are directly infringing the '441 patent by making, using, importing, offering to sell, and/or selling in the United States flip-chip integrated power products with two or more ground pins and two or more switching node pins, including without limitation one or more products having the model designation VT1195SFQ. ("the infringing Volterra products").

23. As a result, Defendants Volterra US and Volterra Asia have been and are still infringing one or more claims of the '441 patent as defined by 35 U.S.C. § 271(a), including without limitation Claim 1.

24. Infineon AG has suffered damage by reason of such infringement and will continue to suffer additional damage until this Court enjoins the infringing conduct.

25. Defendants have continued their infringing activities after receiving notice of the ‘441 patent and, therefore, such infringement is willful, entitling Infineon AG to the recovery of increased damages under 35 U.S.C. § 284.

26. Infringement of the ‘441 patent by Defendants is an “exceptional case” justifying an award of attorneys’ fees and costs to Infineon AG under 35 U.S.C. § 285.

27. Defendants will continue to infringe the ‘441 patent unless enjoined by this Court. Such infringing activity causes Infineon AG irreparable harm and will continue to cause such harm without the issuance of an injunction.

COUNT II

Indirect Infringement of U.S. Patent No. 6,710,441

(Inducement)

28. Infineon AG repeats and realleges each of the allegations set forth above as though fully set forth herein.

29. Defendants have been and are still inducing infringement of the ‘441 patent.

30. Defendants had knowledge of the ‘441 patent by at least June 12, 2012.

31. Defendants are believed to have offered for sale and sold their infringing Volterra products to one or more of their customers, including without limitation HP, after gaining knowledge of the ‘441 patent.

32. HP, among other customers of Defendants, directly infringe the ‘441 patent by making, using, importing, offering to sell, and/or selling the infringing Volterra products, or products that incorporate the infringing Volterra products, in the United States. For example, on information and belief, HP utilizes one or more of the infringing Volterra products in servers located in Plano, Texas, in the Eastern District of Texas. On information and belief, Defendants

marketed the infringing Volterra products to HP, knowing that the infringing Volterra products would be incorporated into the servers operating in the United States. Defendants knew that this activity by their customers directly infringed the '441 patent, or were willfully blind to the fact that this activity by their customers directly infringed the '441 patent.

33. End users of the infringing Volterra products and/or the infringing products of Defendants' customers which incorporate the infringing Volterra products, also directly infringe the '441 patent by using these products in the United States. Defendants knew that this activity by end users directly infringed the '441 patent, or were willfully blind to the fact that this activity by end users directly infringed the '441 patent.

34. As set forth above, Defendants knowingly and intentionally "design[], develop[] and market[]" their infringing products "for the computing, storage, networking and consumer markets." http://volterra.com/corporate_overview.php. Additionally, Defendants know that the infringing Volterra products are subsequently incorporated into the infringing products of their customers, and that these infringing products are made, used, imported, offered for sale, and/or sold by their customers in the United States, and used by end users in the United States.

35. As set forth above, Defendants claim that their products provide numerous benefits to their customers' products, including: "small form factor," "high performance," "complete system-level solutions," "scalability," and "system management." *Id.* Regarding "small form factor," Defendants claim that "[o]ur customers are able to use our solutions to design systems that meet all of their size and performance goals." *Id.* Regarding "high performance," Defendants claim, "[o]ur power management solutions are designed to meet or exceed the demanding power requirements of advanced digital semiconductors. Our products operate at much high speeds than conventional power management solutions without excessive power

dissipation." *Id.* Regarding "complete system-level solutions," Defendants claim, "[o]ur highly integrated products, extensive reference designs and system-level applications expertise enable our customers to incorporate our solutions into electronic systems quickly and easily." *Id.* Regarding "scalability," Defendants claim, "our solutions reduce the complexity, time and cost of system design for our customers." *Id.* Regarding "system management," Defendants claim, "[w]e enable our customers to obtain [vital power system information] and control our products to manage power in order to optimize system performance and reliability." *Id.* Defendants know that many of these and other purported benefits are achieved because their products, and their customers' products, infringe the '441 patent.

36. Defendants knowingly and actively aided and abetted the direct infringement of the '441 patent by offering for sale and selling the infringing Volterra products to third-parties such that those third-parties may use, offer for sale, sell, and/or import the infringing Volterra products and services in a manner that directly infringes the '441 patent. For example, Defendants engaged in such activity by virtue of offering for sale and selling to their customers, the aforementioned infringing Volterra products with knowledge that their customers' subsequent conduct would directly infringe the '441 patent. Defendants negotiate directly with companies in the U.S. and in Asia to obtain design win awards and sales for the infringing Volterra products. It does so by sending employees to visit and consult with these customers to promote the infringing technical aspects of their products. It is believed that Defendants provide one or more of data sheets, reference schematics, test reports, and evaluation boards to their customers to encourage the use of the infringing Volterra products. Furthermore, it is believed that Defendants perform demonstrations of the infringing Volterra products to their customers to encourage the use of the infringing Volterra products. Upon information and belief, Defendants

provide technical assistance to their customers to help them to incorporate the infringing Volterra products into their own infringing products that Defendants know will be imported into, used, offered for sale, and/or sold in the United States. Thus, Defendants induce their customers' infringing conduct knowing that their customers' infringing products will be made, used, imported, offered for sale, and/or sold in the United States.

37. Defendants possessed the specific intent to encourage the direct infringement of the '441 patent by their customers. For example, with full knowledge of the '441 patent, Defendants intentionally and knowingly encouraged the direct infringement of the '441 patent by their customers by performing the activities set forth above. Furthermore, Defendants promoted their products to these infringing customers on their website in the hopes of encouraging other third-parties to purchase and use the infringing Volterra products notwithstanding Defendants' knowledge of the '441 patent and the infringement of the '441 patent by the Volterra products.

38. As a result, by actively inducing direct infringement by their customers, Defendants have been and still are infringing one or more claims of the '441 patent under 35 U.S.C. § 271(b).

39. Defendants have continued their infringing activities after receiving notice of the '441 patent and, therefore, such infringement is willful, entitling Infineon AG to the recovery of increased damages under 35 U.S.C. § 284.

40. Infringement of the '441 patent by Defendants is an "exceptional case" justifying an award of attorneys' fees and costs to Infineon AG under 35 U.S.C. § 285.

41. Defendants will continue to infringe the '441 patent unless enjoined by this Court. Such infringing activity causes Infineon AG irreparable harm and will continue to cause such harm without the issuance of an injunction.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Infineon AG prays that this Court enter judgment:

A. That Defendants have infringed United States Patent No. 6,710,441;

B. That Defendants' infringement was willful as to United States Patent No. 6,710,441;

C. Enjoining and restraining Defendants and their agents, servants, employees, affiliates, divisions, branches, subsidiaries, parents, and all others acting in concert or participating with them from directly or indirectly infringing United States Patent No. 6,710,441;

D. Awarding Infineon AG actual damages, not less than a reasonable royalty, for Volterra US and Volterra Asia's infringement including costs and pre- and post-judgment interest and reasonable attorneys' fees as allowed by law;

E. Declaring this to be an exceptional case pursuant to 35 U.S.C. § 285 and awarding Infineon AG its attorneys' fees;

F. Awarding Infineon AG enhanced damages pursuant to 35 U.S.C. § 284; and

G. Granting Infineon AG such other and further relief as the Court may deem just and equitable.

Dated: August 30, 2013

Respectfully Submitted,

By: */s/ David G. Wille by permission T. John Ward, Jr.*

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