

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

VLSI TECHNOLOGY LLC,

Plaintiff,

v.

INTEL CORPORATION,

Defendant.

C.A. No. \_\_\_\_\_

**JURY TRIAL DEMANDED**

**VLSI TECHNOLOGY LLC'S COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff VLSI Technology LLC ("VLSI"), by and through its undersigned counsel, pleads the following against Intel Corporation ("Intel") and alleges as follows:

**THE PARTIES**

1. Plaintiff VLSI is a Delaware limited liability company duly organized and existing under the laws of the State of Delaware. The address of the registered office of VLSI is Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801. The name of VLSI's registered agent at that address is The Corporation Trust Company.

2. VLSI is the assignee and owns all right, title, and interest to U.S. Patent Nos. 6,212,633 ("the '633 Patent"), 7,246,027 ("the '027 Patent"), 7,247,552 ("the '552 Patent"),

7,523,331 ("the '331 Patent"), and 8,081,026 ("the '026 Patent") (collectively, the "Asserted Patents").

3. On information and belief, Defendant Intel is a corporation duly organized and existing under the laws of the State of Delaware, having its principal place of business at 2200 Mission College Blvd., Santa Clara, CA 95054.

### **JURISDICTION AND VENUE**

4. This is an action arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.* Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Intel because Intel is incorporated in Delaware. Intel also manufactures products that are and have been used, offered for sale, sold, and purchased in the District of Delaware.

6. Under 28 U.S.C. §§ 1391(b)-(d) and 1400(b), venue is proper in this judicial district because Intel is incorporated in this district, has committed acts of infringement within this judicial district giving rise to this action, and does business in this district.

### **FIRST CLAIM**

#### **(Infringement of U.S. Patent No. 6,212,633)**

7. VLSI re-alleges and incorporates herein by reference Paragraphs 1-6 of its Complaint.

8. The '633 Patent, entitled "Secure data communication over a memory-mapped serial communications interface utilizing a distributed firewall," was duly and lawfully issued April 3, 2001. A true and correct copy of the '633 Patent is attached hereto as Exhibit 1.

9. The '633 Patent names Paul S. Levy and Steve Cornelius as co-inventors.

10. The '633 Patent has been in full force and effect since its issuance. VLSI owns by assignment the entire right, title, and interest in and to the '633 Patent, including the right to seek damages for past, current, and future infringement thereof.

11. The '633 Patent states that it relates to a "distributed firewall . . . utilized in conjunction with a memory-mapped serial communications interface." Ex. 1 at Abstract.

12. The '633 Patent explains that "Peer-to-peer communications are particularly useful in bandwidth-intensive operations such as video communications. Thus, for example, if a computer CPU is coupled to a video display and a DVD drive through an IEEE 1394 interface, the DVD drive could transmit video information directly to the video display over the interface, thereby eliminating the need for the CPU to process and oversee the transmission." Ex. 1 at 2:51-60.

13. The patent further explains that "one problem associated with . . . memory-mapped communications interfaces, is that there is no provision for secured communications between devices coupled to such interfaces. Each data transmission is broadcast to every node on the interface. Only a node that is indicated as the destination for a data transmission handles the transmission—all other nodes ignore the data transmission. Moreover, data is transmitted without any encryption—a process often used in other environments to scramble transmitted information and thereby prevent unauthorized entities from comprehending any intercepted information." Ex. 1 at 2:60-67.

14. The '633 Patent states that the "distributed firewall incorporates security managers in the selected nodes that are respectively configured to control access to their associated nodes, thereby restricting access to such nodes to only authorized entities." Ex. 1 at 3:52-56.

15. VLSI is informed and believes, and thereon alleges, that Intel has infringed and unless enjoined will continue to infringe one or more claims of the '633 Patent, in violation of 35 U.S.C. § 271, by, among other things, making, using, offering to sell, and selling within the United States, supplying or causing to be supplied in or from the United States, and importing into the United States, without authority or license, Intel products with the infringing features, including Intel products containing Intel On-Chip System Fabric (commonly abbreviated "IOSF") technology.

16. The '633 accused products, for example, embody every limitation of at least claim 36 of the '633 Patent, literally or under the doctrine of equivalents, as set forth below. The further descriptions below, which are based on publicly available information, are preliminary examples and are non-limiting.

**["A method of controlling access to first and second nodes from a plurality of nodes coupled to one another over a memory-mapped serial communications interface of the type supporting peer-to-peer communications between the plurality of nodes, the method comprising:"]**

17. The '633 accused products implement a method of controlling access to multiple IOSF sideband agents (such as the circuit hosting the TMCSRCLK, TMCSRCKL2, ENCCKRQ, and ICCSEC registers as described on page 181 of the Intel C620 Series Chipset Platform Controller Hub Datasheet, as well as the "Intel ME" and "PMC" circuits).

5	0h RW/L	<b>Lock Bit for Group 1 of Dynamically Configured ICC Registers (Lock_ICCG1Dyn):</b> This lock bit covers registers <b>TMCSRCLK, TMCSRCLK2, ENCCKRQ</b> . 0: Target endpoint will accept all incoming requests as normal. 1: Target endpoint will deny incoming requests addressed to above listed ICC Registers, unless those requests are attributed with Intel ME SAI or PMC SAI. When denying a request, target endpoint will generate a completion packet as follows: Read will complete without data as Unsuccessful on IOSFSB (normally read completes with data as Successful on IOSFSB), Non-posted Write will complete without data as Unsuccessful on IOSFSB (normally non-posted write completes without data as Successful on IOSFSB) and the Write does not take effect at the register (i.e., register content is not affected.)
4:1	0h RO	Reserved.
0	0h RW/L	<b>Lock Bit for ICC Security Register (Lock_ICCSEC):</b> This lock bit covers register <b>ICCSEC</b> , i.e., this same register where this lock bit resides. 0: Target endpoint will accept all incoming requests as normal. 1: Target endpoint will deny incoming requests addressed to ICCSEC register, unless those requests are attributed with Intel ME SAI. When denying a request, target endpoint will generate a completion packet as follows: Read will complete without data as Unsuccessful on IOSFSB (normally read completes with data as Successful on IOSFSB), Non-posted Write will complete without data as Unsuccessful on IOSFSB (normally non-posted write completes without data as Successful on IOSFSB) and the Write does not take effect at the register (i.e., register content is not affected.)

18. This method controls access over a memory-mapped serial communications interface. For example, ICCSEC is memory-mapped at offset 0x1020.

## ICC Security (ICCSEC)—Offset 1020h

19. Furthermore, agents on the IOSFSB, which stands for "IOSF Sideband," use serial communications.

20. For example, Intel's U.S. Patent No. 9,213,666 discussing IOSF sideband explains that "[a] sideband interface . . . can be implemented as a serial message interface (instead of many parallel sideband wires) to simplify structural layout requirements." 6:53-56.

21. Moreover, the patent further notes that "on-chip power management control" is an "example[] of communication types that may be sent via a sideband message interface," 6:57-59; "PMC," referenced above in the ICCSEC description, appears to be a type of Power Management Control based on its use of an acronym commonly appropriated for that purpose, further correlating the "IOSFB" reference with IOSF sideband as described in the '666 patent. Similarly, the patent notes that "a manageability engine" (such as Intel's ME) can communicate

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.