

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COLLABO INNOVATIONS, INC., a
Delaware corporation,

Plaintiff,

v.

ADVANCED MICRO DEVICES, INC., a
Delaware corporation

Defendant.

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No. 1:18-cv-552

DEMAND FOR JURY TRIAL

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Collabo Innovations, Inc. (“Collabo”) files this Complaint against Advanced Micro Devices, Inc. (“AMD”), for its infringement of United States Patent 7,930,575. Collabo alleges as follows:

PARTIES

1. Collabo Innovations, Inc., (“Collabo”) is a Delaware corporation with its principal place of business at 600 Anton Blvd., Suite 1350, Costa Mesa, California, 92626.

2. Upon information and belief, AMD is a Delaware corporation doing business in Texas with offices in Austin, Texas, and principal executive offices in Sunnyvale, California. AMD may be served in Texas via its registered agent CT Corporation System, 1999 Bryan St., Ste. 900, Dallas, TX 75201.

JURISDICTION

3. Collabo brings this action under the patent laws of the United States, 35 U.S.C. § 1 *et. seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1332(a)(2), and 1338(a).

VENUE

4. Venue is proper in this District under 28 U.S.C. § 1400(b). AMD has sold, offered to sell, and used in this District, products that practice or embody one or more claims of each of the patents in suit, as discussed more fully herein. AMD's location in Austin, Texas is a regular and established place of business in this District. AMD has reported that its Austin location is its "largest facility by headcount," and has "more employees than the rest of its U.S. facilities combined."

THE PATENT IN SUIT

5. On April 19, 2011 the United States Patent and Trademark Office duly and legally issued United States Patent No. 7,930,575 B2 ("the '575 Patent"), which is entitled "Microcontroller For Controlling Power Shutdown Process," and identifies Yukari Suginaka, Toshifumi Hamaguchi, Yoshitaka Kitao, and Shinya Muramatsu as the inventors. A true and correct copy of the '575 Patent is attached hereto as Exhibit A. The '575 Patent has been assigned to Plaintiff Collabo. Collabo holds all right, title, and interest in the '575 Patent, including the right to sue for and receive damages for past, present and future infringement of the '575 Patent.

6. Collabo has offered to license the '575 Patent to AMD. Collabo has engaged in numerous discussions with AMD, through correspondence and in person and telephonic meetings spanning several months, but AMD has not agreed to license the patents in suit despite several good-faith offers from Collabo. Collabo has therefore been compelled to file this suit to protect its rights.

FIRST CLAIM FOR RELIEF

Infringement of U.S. Patent No. 7,930,575

7. Collabo realleges and incorporates by reference the allegations of paragraphs 1-6, inclusive, as if set forth in full herein.

8. AMD has infringed, and continues to infringe, at least claims 1, 3, 5, and 12 of the '575 patent. AMD makes, uses, offers to sell, or sells, within the United States or imports into the United States, products, such as the AMD APUs capable of the Core C6 state, including but

not limited to the 14h, 15h, 16h, and 17h APU families, (“’575 Representative Accused Products”) that meet each and every limitation of claims 1, 3, 5, and 12.

9. The ’575 Representative Accused Products are a microcontroller having a CPU. The PG controller or headers within the core are a power supply unit arranged between the CPU and external voltage regulators that supplying power to the CPU. The SMU unit is a power supply control unit for controlling the CPU and the power supply unit. The L1 cache is an information holding unit for holding information evacuated from the CPU, the information being necessary in proceeding with a program. The core PLL/voltage regulator is a clock generator. The SMU issues a StpClk signal to the CPU in response to an occurrence of a power shutdown factor, a C-state request. The CPU, upon receiving the shutdown request signal, executes the optimized microcode save routines for fast entry into CC6 state. The microcode informs the Northbridge that the CC6 transition or state save is complete and in doing so, evacuates the information necessary in proceeding with the program to the information holding unit, and outputs an evacuation completed signal to the power supply control unit after evacuation is completed. Once the SMU receives the evacuation completed signal it outputs a power shutdown control signal to the power supply unit. This removes power from the core and causes the core to enter CC6 state. The SMU, upon receiving the evacuation completed signal, outputs a clock stop control signal CC6PwrDwnRegEn to the clock generator. The SMU outputs a power supply control signal to the power supply unit in response to an occurrence of a power supply restoration factor, including events such as INTR, NMI, SMI, INIT, or a RESET_L assertion that may cause the processor to exit CC6 and return to C0 state. The power supply unit, upon receiving the power supply control signal, starts to supply power to the CPU. The power supply control unit outputs the request that calls the microcode reset required after power gating has been applied to the core and L2 pair to the CPU and outputs a clock supply control signal CC6PwrDwnRegEn to the clock generator when a supplied power supply voltage is stabilized, when all SLPFETS are reactivated. When all SLPFETS are activated, the clock generator, upon receiving the clock supply control signal, restarts to supply an operation clock. and the CPU,

upon receiving the restoration request signal, executes a power supply restoration microprogram, the microcode restore routine that executes the standard reset routine, and restores the the core state saved to DRAM during CC6 entry, and then when an INTR is received while the core is in CC6 state, the state of EFLAGS[IF] and the mechanism used to enter the CC6 state, such as HLT or IO read, determine the core's action once the interrupt wakes the core, this branches a process to an address indicated by a program counter to continue program execution from a shutdown state.

10. The power supply control unit of the '575 Representative Accused Products limits a period in which shutdown is possible, in that when an interrupt arrives while the core is in CC1 state, the microcode checks for the presence of StpClk, and enters CC6 state if StpClk is present.

11. The INTTR, NMI, and SMI events that may cause the processor to exit CC6 and return to C0 state are power supply restoration factors that use an interrupt system of the microcontroller.

12. The control bus of the '575 Representative Accused Products uses negative logic to turn the SLEPFETs ON and OFF.

13. Other AMD products similarly infringe one or more claims of the '575 Patent. Collabo accuses of infringement all AMD products that contain features and functions similar to those described above that practice one or more claims of the '575 Patent.

14. AMD has induced and continues to induce infringement of one or more claims of the '575 Patent, including, but not limited to, Claims 1, 3, 5, and 12, pursuant to 35 U.S.C. § 271(b), by encouraging its customers and other third parties to use AMD's infringing products capable of entering the Core C6 state. This use of AMD's infringing products, constitutes infringement of one or more claims of the '575 Patent by such customers or third parties. AMD's acts of inducement include: providing its customers with the '575 Patent Infringing Products and intending its customers to use the '575 Infringing Products with hardware, software, and other infrastructure that enable and/or make use of these products; advertising these products through its own and third-party websites; encouraging customers and other third parties to communicate

directly with AMD representatives about these products; and providing instructions on how to use these products.

15. AMD has had notice of the '575 Patent and of its infringement of the '575 Patent for more than one year. Before initiating litigation, Collabo made substantial efforts to license AMD's use of the inventions claimed in the '575 Patent, expecting that AMD would engage in good faith licensing discussions. AMD has refused to license the '575 Patent, and continues to infringe one or more claims of the '575 Patent despite being aware of its infringement of the '575 Patent on the basis of claim charts provided by Collabo and subsequent discussions between the parties. AMD's infringement of the '575 Patent has therefore been, and continues to be, willful, deliberate, and egregious, and has caused and continues to cause substantial damage to Collabo.

DEMAND FOR JURY TRIAL

16. Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Collabo demands a trial by jury on all issues so triable.

PRAYER

WHEREFORE, Collabo prays that judgment be entered in its favor and against AMD as follows:

- a. For damages in an amount according to proof, but no less than a reasonable royalty for infringement of the patents in suit;
- b. For enhanced damages pursuant to 35 U.S.C. § 284;
- c. For prejudgment and post-judgment interest as provided by law;
- d. For costs of suit and reasonable attorneys' fees incurred herein; and
- e. For such other relief as the Court deems proper.

Dated: July 2, 2018

Respectfully submitted,

Henry B. Gonzalez III

/s/ Henry B. Gonzalez III

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