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

InnoMemory, LLC,	Case No. 2:24-cv-00154-RWS-RSP
Plaintiff,	Patent Case
v.	Jury Trial Demanded
Capital One Financial Corporation,	
Defendant.	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

1.   Plaintiff InnoMemory, LLC ("Plaintiff"), through its attorneys, complains of Capital One Financial Corporation ("Defendant"), and alleges the following:

PARTIES

2.   Plaintiff InnoMemory, LLC is a corporation organized and existing under the laws of Texas that maintains its principal place of business at 261 West 35th Street – Suite 1003, New York NY 10001-1902.

3.   Defendant Capital One Financial Corporation is a corporation organized and existing under the laws of Delaware that maintains an established place of business at 7933 Preston Road, Plano, TX 75024-2302.

JURISDICTION

4.   This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.

5.   This Court has exclusive subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6.   This Court has personal jurisdiction over Defendant because it has engaged in systematic and continuous business activities in this District. As described below, Defendant has committed acts of patent infringement giving rise to this action within this District.

VENUE

7.   Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant has an established place of business in this District. In addition, Defendant has committed acts of patent infringement in this District, and Plaintiff has suffered harm in this district.

PATENTS-IN-SUIT

8.   Plaintiff is the assignee of all right, title and interest in United States Patent Nos. 6,240,046; and 7,057,960 (the "Patents-in-Suit"); including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the Patents-in-Suit. Accordingly, Plaintiff possesses the exclusive right and standing to prosecute the present action for infringement of the Patents-in-Suit by Defendant.

THE '046 PATENT

9.   The '046 Patent is entitled "Integrated circuit random access memory capable of reading either one or more than one data word in a single clock cycle," and issued 2001-05-29. The application leading to the '046 Patent was filed on 2000-02-11. A true and correct copy of the '046 Patent is attached hereto as Exhibit 1 and incorporated herein by reference.

10.   Prior to the invention of the '046 Patent, there was a need for "increased speed" in "memory systems" as well as "an increasing need for memory with reduced power consumption." '046 Patent, 1:65-67.

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11.   Conventional memory systems of the prior art had "a data bus that is one word wide coupled to a memory array," which "perform[ed] a read cycle each time a read request occurs." '046 Patent, 1:67-2:3. "Other prior art memories [had] a data bus that is two data words wide coupled to a memory array." *Id*., 2:3-5.

12.   "In a read cycle" performed according to conventional prior art memory systems, "the memory retrieves both data words and outputs a first data word (the requested data word) in response to the read request. If the second data word is requested in the next read cycle, then the second data word is presented in response to the second read request with no activity required of the memory array. Otherwise, the second data word is discarded." '046 Patent, 2:5-11.

13.   However, read cycles performed in this manner did not meet the need for increased speed with reduced power consumption, and there was "an unfilled need for memory devices with low power consumption characteristics." '046 Patent, 2:13-15.

14.   Accordingly, the '046 Patent claimed an inventive and unconventional "random access memory integrated circuit having statistically lower average power consumption," including a "memory array capable of storing a plurality of data words and a data bus having a width of more than one data word coupled to the memory array." '046 Patent, 2:18-23. "The memory is capable of retrieving a first data word from the memory array in a first clock cycle and a second data word from the memory array in a second clock cycle immediately following the first clock cycle." *Id.* at 2:23-28.

15.   These inventive and unconventional capabilities differed markedly from conventional memory systems of the prior art, typically "used a data bus that is one word wide." '046 Patent, 2:1.

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16.   Similarly, the system's inventive and unconventional capability of retrieving a first data word in a first clock cycle before retrieving a second data word differed from conventional memory systems of the prior art, which typically "retrieve[d] both data words." '046 Patent, 2:5.

17.   These inventive and unconventional capabilities enabled both increased speed as well as reduced power consumption, as compared with conventional prior art memory systems, which were limited to data buses one word wide, while retrieving two data words at once.

18.   These inventive and unconventional concepts are reflected in the "memory array capable of storing a plurality of data words," the "data bus coupled to the memory array, the data bus having a width of more than one data word" and the "random access memory integrated circuit is capable of retrieving a first data word from the memory array in a first clock cycle and a second data word from the memory array in a second clock cycle immediately following the first clock cycle" limitations of Claim 1, which claim the inventive and unconventional memory system.

19.   None of the claimed functionality of the system of Claim 1 of '046 Patent was previously performed by human beings, or can be performed in the human mind.

THE '960 PATENT

20.   The '960 Patent is entitled "Method and architecture for reducing the power consumption for memory devices in refresh operations," and issued 2006-06-06. The application leading to the '960 Patent was filed on 2003-07-29. A true and correct copy of the '960 Patent is attached hereto as Exhibit 2 and incorporated herein by reference.

21.   Prior to the inventions of the '960 Patent, because "conventional dynamic semiconductor memory devices [were] configured to refresh all the memory cells, reducing the

power consumption further (e.g., several hundred microamperes) in the standby mode has been difficult." '960 Patent, 1:49-53. However, "because the power consumption in the standby mode can directly affect the continuous standby time, for example, reducing the power consumption in the standby mode can be very important." *Id*. at 1:53-56.

22.   A "disadvantage" of the "conventional approach is that the periphery array circuits of all four quadrants are activated when less than the full array requires refreshing" and "additional circuits…are needed for controlling the higher order address bits." '960 Patent, 2:25-29.

23.   As such, there was a need "to reduce the power consumption for battery powered portable terminals and various other appliances that use dynamic semiconductor memory devices." '960 Patent, 2:30-32.

24.   In contrast to conventional methods, the '960 Patent claimed an inventive and unconventional method for reducing the power consumption of memory devices during background operations that permitted activation of fewer than all sections of the memory array, in order to reduce the power consumption associated with partially refreshing the array.

25.   As the '960 Patent explains, the "present invention generally provides a method and/or architecture for reducing the standby current of a memory device by reducing the periphery array circuitry activated during a partial array refresh." '960 Patent, 7:62-65. Thus, the present inventions may provide, in one example, a capability to refresh one-fourth, one-half, three-quarters and/or all of the memory array space of, in one example, a dynamic random access memory (DRAM)." *Id.* at 7:65-8:2.

26.   This was in contrast to the conventional approach of the prior art, which was "that the periphery array circuits of all four quadrants are activated when less than the full array requires refreshing," which required increased power consumption. '960 Patent, 2:25-29.

27.   The inventive and unconventional concepts of the '960 Patent are reflected in Claim 1, which requires "controlling said background operations in each of said plurality of sections of said memory array," and that "said background operations can be enabled simultaneously in two or more of said plurality of sections independently of any other section," allowing refreshing (or other operations) in less than the full array.

28.   None of the claimed functionality of the system of Claim 1 of '960 Patent was previously performed by human beings, or can be performed in the human mind.

COUNT 1: INFRINGEMENT OF THE '046 PATENT

29.   Plaintiff incorporates the above paragraphs herein by reference.

30.   **Direct Infringement**. Defendant directly infringed one or more claims of the '046 Patent in at least this District by making, using, offering to sell, selling and/or importing, without limitation, at least the Defendant products identified in the charts incorporated into this Count below (among the "Exemplary Defendant Products") that infringed at least the exemplary method claims of the '046 Patent also identified in the charts incorporated into this Count below (the "Exemplary '046 Patent Claims") literally or by the doctrine of equivalents. On information and belief, numerous other devices that infringed the claims of the '046 Patent have been made, used, sold, imported, and offered for sale by Defendant and/or its customers.

31.   Defendant also directly infringed, literally or under the doctrine of equivalents, the Exemplary '046 Patent Claims, by having its employees internally test and use these Exemplary Products.

32.   Exhibit 3 includes charts comparing the Exemplary '046 Patent Claims to the Exemplary Defendant Products. As set forth in these charts, the Exemplary Defendant Products practice the technology claimed by the '046 Patent. Accordingly, the Exemplary Defendant Products incorporated in these charts satisfy all elements of the Exemplary '046 Patent Claims.

33.   Plaintiff therefore incorporates by reference in its allegations herein the claim charts of Exhibit 3.

34.   Plaintiff is entitled to recover damages adequate to compensate for Defendant's infringement.

<div align="center">COUNT 2: INFRINGEMENT OF THE '960 PATENT</div>

35.   Plaintiff incorporates the above paragraphs herein by reference.

36.   **Direct Infringement**. Defendant directly infringed one or more claims of the '960 Patent in at least this District by making, using, offering to sell, selling and/or importing, without limitation, at least the Defendant products identified in the charts incorporated into this Count below (among the "Exemplary Defendant Products") that infringed at least the exemplary method claims of the '960 Patent also identified in the charts incorporated into this Count below (the "Exemplary '960 Patent Claims") literally or by the doctrine of equivalents. On information and belief, numerous other devices that infringed the claims of the '960 Patent have been made, used, sold, imported, and offered for sale by Defendant and/or its customers.

37.   Defendant also directly infringed, literally or under the doctrine of equivalents, the Exemplary '960 Patent Claims, by having its employees internally test and use these Exemplary Products.

38.   Exhibit 4 includes charts comparing the Exemplary '960 Patent Claims to the Exemplary Defendant Products. As set forth in these charts, the Exemplary Defendant Products

practice the technology claimed by the '960 Patent. Accordingly, the Exemplary Defendant

Products incorporated in these charts satisfy all elements of the Exemplary '960 Patent Claims.

39.   Plaintiff therefore incorporates by reference in its allegations herein the claim

charts of Exhibit 4.

40.   Plaintiff is entitled to recover damages adequate to compensate for Defendant's

infringement.

JURY DEMAND

41.   Under Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff respectfully

requests a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the following relief:

A.   A judgment that the '046 Patent is valid and enforceable

B.   A judgment that Defendant has infringed directly one or more claims of the '046

Patent;

C.   A judgment that the '960 Patent is valid and enforceable

D.   A judgment that Defendant has infringed directly one or more claims of the '960

Patent;

E.   An accounting of all damages not presented at trial;

F.   A judgment that awards Plaintiff all appropriate damages under 35 U.S.C. § 284

for Defendant's past infringement at least with respect to the '046; and '960

Patents.

G.   And, if necessary, to adequately compensate Plaintiff for Defendant's

infringement, an accounting:

i.   that this case be declared exceptional within the meaning of 35 U.S.C. § 285 and that Plaintiff be awarded its reasonable attorneys fees against Defendant that it incurs in prosecuting this action;

ii.   that Plaintiff be awarded costs, and expenses that it incurs in prosecuting this action; and

iii.   that Plaintiff be awarded such further relief at law or in equity as the Court deems just and proper.

Dated: August 21, 2024   Respectfully submitted,

/s/ Isaac Rabicoff
Isaac Rabicoff
Rabicoff Law LLC
4311 N Ravenswood Ave Suite 315
Chicago, IL 60613
7736694590
isaac@rabilaw.com

Counsel for Plaintiff
InnoMemory, LLC

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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing document was served on all parties who have appeared in this case on August 21, 2024, via the Court's CM/ECF system.

/s/ Isaac Rabicoff
Isaac Rabicoff