

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

NORTH STAR INNOVATIONS	§
INC.,	§
	§
Plaintiff	§
	§
v.	§
	§
CANON U.S.A., INC., CANON	§
INFORMATION TECHNOLOGY	§
SERVICES, INC., and CANON	§
VIRGINIA, INC.,	§
	§
Defendants	§

C.A. NO. 16-cv-651-LPS-CJB

**JURY TRIAL DEMANDED**

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**<sup>1</sup>

Plaintiff North Star Innovations Inc. ("Plaintiff" or "North Star"), by and through its attorneys, files this First Amended Complaint for Patent Infringement against Defendants Canon U.S.A., Inc., Canon Information Technology Services, Inc., and Canon Virginia, Inc. (collectively, "Defendants"), alleging as follows:

**PARTIES**

1. Plaintiff North Star is a corporation organized and existing under the laws of the State of Delaware, with a place of business at 600 Anton Blvd., Costa Mesa, California 92626. Plaintiff is the owner of seminal patents in various fields, including integrated circuits, semiconductor memory architecture, and semiconductor memory devices. Plaintiff's portfolio includes patents that teach innovations and improvements relating to, among other things,

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<sup>1</sup> This amended complaint is being filed to withdraw certain allegations of infringement related to specific components that may be licensed to a third party. This pleading is also being filed to eliminate and render moot some of the issues raised in Defendants' Motion to Dismiss (D.I. No. 15), which is currently pending. For all other issues raised in the Motion, Plaintiff will respond within the time period allotted for such response.

memory devices, such as SRAM, DRAM, and SDRAM. Plaintiff's portfolio includes patents that teach valuable innovations and improvements related to speed, power consumption, density, reliability, cost, efficiency, and organization. Plaintiff is actively engaged in licensing efforts with respect to such technologies.

2. Defendant Canon U.S.A., Inc. ("Defendant" or "Canon USA") is a corporation organized and existing under the laws of the State of New York with a place of business at One Canon Park, Melville, New York, 11747. Canon USA may be served with process by serving its registered agent for service of process – Corporation Service Company, 80 State Street, Albany, NY 12207-2543 – or by serving its counsel of record, who have appeared in this case.

3. According to its website, Canon USA is a leading provider of consumer, business-to-business, and industrial digital imaging solutions to the U.S. It sells many products, including a full lineup of Canon EOS DSLR digital cameras. So, for example, Canon USA is responsible for sales of the Canon EOS Rebel T6i DSLR Camera ("Accused Product" or "Rebel"), including the corresponding sale of any memory devices included within such cameras.

4. Defendant Canon Information Technology Services, Inc. ("Defendant" or "Canon ITS") is a corporation organized and existing under the laws of the Commonwealth of Virginia, with a place of business at 850 Greenbrier Circle, Chesapeake, VA 23320. Canon ITS may be served with process by serving its registered agent for service of process -- Corporation Service Company, Bank of America Center, 16<sup>th</sup> Floor, 1111 East main Street, Richmond, Virginia 23219 – or by serving its counsel of record, who have appeared in this case.

5. According to the Canon USA website, “Canon Information Technology Services, Inc. (Canon ITS) is the support company for Canon products sold in the United States. Canon ITS employs over 600 people and is located in Chesapeake, Virginia[, and] provide[s] industry leading support to end user and business customers, on pre-sales, sales and post sales related inquiries. ... Canon [ITS] specialists ... deliver[] ... quality customer service.” According to the Canon ITS website, “Canon ITS ... is a wholly owned subsidiary of Canon U.S.A., Inc. Canon ITS ... provides support services for all ... consumer products, including digital cameras .... Our primary function is to provide technical support to Canon customers within the USA. ... Our Sales Team assists customers with questions related to product features, functionality, and ‘Where to Buy.’ We [also] offer the direct sales of genuine Canon products ....”

6. Defendant Canon Virginia, Inc. (“Defendant” or “Canon Virginia”) is a corporation organized and existing under the laws of the Commonwealth of Virginia, with a place of business at 12000 Canon Boulevard, Newport News, VA 23606. Canon Virginia may be served with process by serving its registered agent for service of process -- Laurence V. Parker Jr., 200 South 10<sup>th</sup> Street, Suite 1600, Richmond, Virginia 23219 – or by serving its counsel of record, who have appeared in this case.

7. According to its website, Canon Virginia “serves as Canon’s only manufacturing, engineering, recycling and technical support center in the Americas region. [Canon Virginia] produces new products ... while also serving as a factory service center providing expert customer service in the repair and refurbishment of Canon products.” Canon Virginia handles “product returns, repair, [and] refurbishing ... [i]n conjunction with ... Canon [ITS] in Chesapeake, VA.” Technicians at Canon Virginia’s facility handle all “subassemblies”

of a wide variety of products, including “digital products.” Canon Virginia’s website further states: “Products are received daily at our facility and each one is thoroughly tested .... Full diagnostics are performed [and] the product is returned to full operational capabilities ....”

### **JURISDICTION AND VENUE**

8. This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, including §§ 271(a) and (b), 281, 282(a), 283, 284, and 285. This Court has subject matter jurisdiction over this patent infringement action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Defendants. Upon information and belief, Defendants have regularly conducted and continue to conduct business in the State of Delaware. Defendants have committed infringing activities in Delaware and in the United States by: offering for sale and/or selling in this judicial district products and systems that infringe the Patent-In-Suit (as defined below); by placing such infringing products and systems into the stream of commerce with the awareness, knowledge, and intent that they would be used, offered for sale, or sold by others in this judicial district and/or purchased by consumers in this judicial district; and/or by inducing individuals in this judicial district to infringe the Patent-in-Suit, through, for example, customer service efforts directed to individuals in this judicial district. This Court’s exercise of personal jurisdiction over Defendants would therefore comport with due process.

10. Venue is proper pursuant to 28 U.S.C. §§ 1391(b) and 1400(b).

**THE PATENT-IN-SUIT**

11. On April 6, 1999, U.S. Patent No. 5,892,777 (“the ’777 Patent”) – entitled “Apparatus and Method for Observing the Mode of a Memory Device” – was lawfully and properly issued by the USPTO, after a full and fair examination. The named inventors on the ’777 Patent are Michael Nesheiwat, Roger Grass, and Arthur O’Donnell. A true and correct copy of the ’777 Patent is attached hereto as Exhibit A and incorporated by reference.

12. Generally speaking, the ’777 Patent teaches, among other things, an improved circuit design for SDRAM that includes additional circuitry for the mode register. The novel design facilitates observation and testing of the value or state of the mode register without affecting the operation of the device and in a way that uses minimum silicon area.

13. The ’777 Patent may be referred to as the “Patent-in-Suit.”

14. By way of assignment, Plaintiff is the owner of all right, title, and interest in and to the Patent-in-Suit, including the rights to prosecute this action and to collect and receive damages for all past, present, and future infringements.

**COUNT ONE: INFRINGEMENT OF THE ’777 PATENT**

15. Plaintiff incorporates the above allegations as if set forth here in full.

16. The ’777 Patent is valid and enforceable. Defendants do not have a license to practice the patented inventions of the ’777 Patent.

17. Defendants have infringed and are currently infringing the ’777 Patent by, among other things, making, using, offering for sale, selling, and/or importing within this judicial district and elsewhere in the United States – without license or authority – products, devices, or systems falling within the scope of one or more claims of the ’777 Patent, in

violation of 35 U.S.C. § 271(a). For example, the Rebel, which includes a 4Gb DDR2 Mobile RAM, Part #EDB406B3PB (“SDRAM”), directly infringes at least Claim 1 of the ’777 Patent.

18. The Rebel infringes at least Claim 1 because, by virtue of the operation of the SDRAM present in the Rebel, the Rebel meets each and every limitation of that claim. The Rebel and, more specifically, its SDRAM, operates in a way that practices each step of Claim 1: “A method for observing a control register in a memory device, the control register defining an operation of the memory device, the control register not observable from the memory device, the method comprising the steps of:<sup>2</sup> storing a received value in the control register responsive to a first signal; outputting the received value responsive to a second control signal when no output is expected from the memory device; and disabling the operation of the memory device responsive to the second control signal subsequent to the step of outputting.”

19. Such infringement is demonstrated and evidenced by, for example, the SDRAM data sheet available at <https://www.micron.com/parts/dram/mobile-ddr2-sdram/edb4064b3pb-8d-f> (see, e.g., pages 1, 4) and the SDRAM-specific commentary provided by the LPDDR2 JEDEC Standard, JESD209-2B, February 2010, available at <http://www.jedec.org/sites/default/files/docs/JESD209-2B.pdf> (see, e.g., pages 30 and 124-127).

20. Regarding direct infringement, and by way of example only, Canon USA directly infringes by virtue of using the Rebel within the U.S. – to the extent it uses the Rebel in its testing, marketing, and customer service efforts. On information and belief, and by way of example only, Canon ITS directly infringes by using, offering for sale, and selling the Rebel

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<sup>2</sup> Plaintiff does not hereby suggest or concede that the preamble of this or any other asserted claim constitutes a substantive limitation. That issue is expressly reserved for claim construction.

within the U.S. On information and belief, and by way of example only, Canon Virginia directly infringes by making and using the Rebel in the U.S.

21. Regarding indirect infringement, and by way of example only, Defendants indirectly infringe the Patent-in-Suit, in violation of 35 U.S.C. § 271(b), through their active inducement of infringement by end users, such as owners and other end users of the Rebel who directly infringe the Patent-in-Suit through their use of the Accused Product. Defendants have had knowledge of the Patent-in-Suit at least since the filing of the Original Complaint in this case. On information and belief, Defendants have the specific intent to encourage infringement, as evidenced by, for example, the fact that they provide or otherwise make available to end users a user manual, such as the manual available at <http://gd1p01.c-wss.com/gds/4/0300018254/02/eos-rebelt6i-750d-im2-en.pdf>, which provides instructions on how to use the Rebel in a way that infringes the Patent-in-Suit, or, more specifically, by providing instructions on how to use the Rebel in a way that necessarily triggers the operation of the SDRAM included therein. Defendants also provide a variety of online support options, e.g., at <https://www.usa.canon.com/internet/portal/us/home/support/>, which likewise teach, instruct, and/or encourage end users to use the Rebel in an infringing manner, i.e., in a way that triggers operation of the SDRAM. Further, Defendants have had knowledge, at least since the filing of this suit, that the induced acts constitute patent infringement. Canon continues to make such manuals and website support available to Rebel owners and other end users – even though Canon has been aware of the Patent-in-Suit and aware of its infringement since (at least) the filing of this lawsuit. These facts are evidence of Canon’s specific intent to encourage infringement.

22. On information and belief, additional Canon products are believed to infringe one or more claims of the '777 Patent, because, for example, they include components such as the SDRAM that cause or allow such products to practice each and every step of the novel method taught by Claim 1. Plaintiff expressly reserves the right to assert additional patents and additional claims and to identify additional infringing products, in accordance with the Federal Rules of Civil Procedure, the Court's scheduling order and the Court's local rules.

23. Plaintiff has been damaged by Defendants' infringing conduct and will continue to be damaged unless Defendants are enjoined from further infringement. Accordingly, upon finding for Plaintiff, the Court should award to Plaintiff damages adequate to compensate for the infringement, in an amount to be determined at trial, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the Court. Further, upon judgment in favor of Plaintiff, the Court should permanently enjoin Defendants from committing the infringing acts.

**DEMAND FOR JURY TRIAL**

24. Plaintiff hereby demands a trial by jury on all issues.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully prays for entry of judgment as follows:

25. That Defendants have directly infringed one or more claims of the Patent-in-Suit;

26. That Defendants have indirectly infringed one or more claims of the Patent-in-Suit;

27. That Plaintiff is entitled to, and should recover, all damages to which Plaintiff is entitled under 35 U.S.C. § 284, but in no event less than a reasonable royalty;



28. That Defendant be permanently enjoined from further infringement of the Patent-in-Suit;

29. That Defendants be ordered to provide an accounting;

30. That Plaintiff, as the prevailing party, shall recover from Defendants all taxable costs of court;

31. That Plaintiff shall recover from Defendants all pre- and post-judgment interest on the damages award, calculated at the highest interest rates allowed by law;

32. That this case is exceptional and that Plaintiff therefore shall recover its attorney's fees and other recoverable expenses, under 35 U.S.C. § 285; and

33. That Plaintiff shall recover from Defendants such other and further relief as the Court may deem appropriate.

Dated: October 5, 2016

Respectfully submitted,

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