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**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION**

MEMORY TECHNOLOGIES, LLC,
a Nevada company,

Plaintiff,

vs.

SANDISK LLC, a Delaware company,
WESTERN DIGITAL
CORPORATION, a Delaware
company, WESTERN DIGITAL
TECHNOLOGIES, INC., a Delaware
company,

Defendants.

Case No. 8:16-cv-2163

**COMPLAINT FOR PATENT
INFRINGEMENT**

DEMAND FOR JURY TRIAL

1 Plaintiff Memory Technologies, LLC (“MTL”) hereby alleges for its Complaint for
2 patent infringement against SanDisk LLC, Western Digital Corporation, and Western
3 Digital Technologies, Inc. (collectively “Defendants”) on personal knowledge as to its
4 own actions and on information and belief as to the actions of others, as follows:

5 **THE PARTIES**

6 1. MTL is organized in Nevada and has its headquarters at 6787 W Tropicana
7 Ave., Suite 238, Las Vegas, NV 89103. MTL is a subsidiary of Pendrell Corporation.
8 MTL owns a worldwide patent portfolio that covers numerous memory technologies. As
9 many as 81 of MTL’s patents belong to patent families containing patents essential to
10 various memory and electronic storage standards, including the JEDEC eMMC standard¹
11 and SD Standard.² In the past three years, MTL has licensed the Asserted Patents to the
12 major flash memory manufacturers in the world.

13 2. On information and belief, SanDisk LLC (“SanDisk”) is organized under the
14 laws of the State of Delaware, with its principal place of business at 951 SanDisk Dr.,
15 Milpitas, CA 95035. On information and belief, SanDisk LLC is a wholly owned
16 subsidiary of Western Digital Corporation, which is also incorporated under the laws of
17 the State of Delaware. On information and belief, SanDisk Corporation converted to
18 SanDisk LLC this year, and references herein to “SanDisk” refer to the acts of both
19 SanDisk LLC and its predecessor in interest, SanDisk Corporation. On information and
20 belief, SanDisk is in the business of designing, developing, manufacturing, making,
21 offering for sale, selling, using, selling in the United States after importation, selling for
22 importation, and/or importing into the United States certain flash memory devices or their
23 components, including certain SD Cards, microSD Cards, and eMMC memory.

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¹ The JEDEC eMMC standard refers to the JEDEC Embedded MultiMediaCard (e.MMC)
26 e.MMC/Card Product Standard (JESD84-A441) or higher. MTL will use “eMMC” to
27 refer to e.MMC as governed by the JEDEC e.MMC Standard in this complaint.

28 ² The SD Standard refers to the Secure Digital Association Physical Layer Specification
 (“SD Standard”).

1 3. On information and belief, Western Digital Corporation is incorporated
2 under the laws of the State of Delaware, with its principal place of business at 3355
3 Michelson Drive, Suite 100, Irvine, CA 92612. On information and belief, as of May 12,
4 2016, SanDisk became an indirect, wholly owned subsidiary of Western Digital
5 Corporation. On information and belief, SanDisk is now a “Western digital brand,” and
6 Western Digital Corporation or its affiliates are identified as holding the copyright on
7 SanDisk’s website. *See* <https://www.sandisk.com/>.

8 4. On information and belief, Western Digital Technologies, Inc. is
9 incorporated under the laws of the State of Delaware, with its principal place of business
10 at 951 SanDisk Drive, Milpitas, CA 95035. On information and belief, Western Digital
11 Technologies, Inc. is a wholly owned subsidiary of Western Digital Corporation, and
12 SanDisk is a wholly owned subsidiary of Western Digital Technologies, Inc. On
13 information and belief, Western Digital Technologies, Inc. is also the seller of record and
14 licensee in the Americas of SanDisk products. *See* <https://www.sandisk.com/>. SanDisk
15 also identifies Western Digital Technologies, Inc.’s headquarters in Milpitas, California,
16 as SanDisk’s headquarters. *See* <https://www.sandisk.com/about/contact/locations>.

17 5. This is a patent infringement action by MTL to end Defendants’
18 unauthorized, willful, and infringing manufacture, use, sale, offering to sell, and/or
19 importing in the United States of products and components that incorporate MTL’s
20 patented inventions, and to end Defendants’ active inducement of infringement by others
21 in the United States of MTL’s patented inventions.

22 6. MTL is the owner of the patents at issue in this action: U.S. Patent Nos.
23 RE45,486 (“the 486 Patent”); RE45,542 (“the 542 Patent”); 9,063,850 (“the 850 Patent”);
24 8,307,180 (“the 180 Patent”); and 7,565,469 (“the 469 Patent”), 7,275,186 (“the 186
25 Patent”); 7,827,370 (“the 370 Patent”); and 7,739,487 (“the 487 Patent”) (collectively,
26 the “Asserted Patents”).

1 7. MTL holds all substantial rights and interest in the Asserted Patents, as
2 described below, including the exclusive right to sue Defendants for infringement and
3 recover damages.

4 8. Defendants make, use, sell, offer to sell, and/or import in the United States
5 systems and components of systems that infringe one or more claims of the Asserted
6 Patents, and actively induce infringement by others of the same. MTL seeks monetary
7 damages and prejudgment interest for Defendants' past and ongoing direct and indirect
8 infringement of the Asserted Patents.

9 **JURISDICTION AND VENUE**

10 9. This civil action for patent infringement arises under the patent laws of the
11 United States, 35 U.S.C. § 100 et seq., including in particular under 35 U.S.C. § 271. This
12 Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

13 10. This Court has personal jurisdiction over Western Digital Corporation.
14 Western Digital Corporation has systematic and continuous contacts with the forum,
15 including because it conducts substantial business and is headquartered in California and
16 this District at 3355 Michelson Drive, Suite 100, Irvine, CA 92612.

17 11. This Court has personal jurisdiction over Western Digital Technologies, Inc.
18 Western Digital Technologies, Inc. has systematic and continuous contacts with the
19 forum, including because, like its parent Western Digital Corporation, it conducts
20 substantial business in California and this District and is headquartered in California.

21 12. This Court has personal jurisdiction over SanDisk. SanDisk has systematic
22 and continuous contacts with the forum, including because, like its parent Western
23 Digital Corporation, it conducts substantial business in California and this District and is
24 headquartered in California.

25 13. Venue is proper in the Central District of California under 28 U.S.C.
26 §§ 1391 and 1400(b), because Defendants do business in the district, have committed acts
27 of infringement in the district, and because a substantial part of the events giving rise to
28 MTL's claims against Defendants occurred and continue to occur in this District.

1 14. On information and belief, both Western Digital Corporation and Western
2 Digital Technologies, Inc. (collectively “Western Digital”) conduct substantial business
3 in this District. Western Digital makes, uses, sells, offers to sell, and/or imports, within
4 this District, systems and components that infringe one or more of the Asserted Patents,
5 and induces infringement by others within this District. Western Digital derives
6 substantial revenue from the sale of infringing systems and components within the
7 District, and/or expects or should reasonably expect its actions to have consequences
8 within the District. Western Digital has committed and continues to commit acts of patent
9 infringement in this District, including making, using, selling, offering to sell, and/or
10 importing infringing systems and components within the District, and inducing
11 infringement by others in this District, including by and through these activities described
12 above that were and are undertaken in concert with SanDisk.

13 15. Moreover, on information and belief, Western Digital Corporation is
14 headquartered at 3355 Michelson Drive, Suite 100, Irvine, CA 92612. Western Digital
15 has established a significant presence in this forum by manufacturing, using, selling,
16 offering to sell, and importing in this District SanDisk SD cards, SanDisk microSD cards,
17 SanDisk eMMC memory, and/or products containing SanDisk eMMC memory that
18 infringe one or more Asserted Patents in this action, or inducing such acts. For example,
19 Western Digital offered a 32GB SanDisk SD Card with purchase of its My Passport
20 Wireless Product. Additionally, Western Digital directly sells 32 GB SanDisk Extreme
21 Pro SD UHS-I Cards on its website.

22 16. Additionally, on information and belief, according to publicly available
23 documentation, Western Digital’s principal marketing, sales, and customer service
24 decisions are made at Western Digital’s headquarters within this District. Furthermore,
25 Western Digital’s finance and accounting departments, as well as its legal and executive
26 offices are located at its headquarters within this District. On information and belief,
27 because Western Digital Corporation’s headquarters are located within this District,
28 Western Digital and SanDisk meet within this District at Western Digital Corporation’s

1 headquarters to discuss and make decisions regarding matters pertaining to the Accused
2 Products, including but not limited to marketing, sales, and customer services of the
3 Accused Products. Additionally, on information and belief, Western Digital induces
4 others, including SanDisk and other third-parties, to infringe the Asserted Patents within
5 this District, through, among other of its operations, its marketing, sales, and customer
6 service operations. On information and belief, Western Digital and SanDisk jointly
7 induce others to infringe the Asserted Patents from within this District through
8 marketing, sales, and customer service operations.

9 17. SanDisk also makes, uses, sells, offers to sell, and/or imports its systems and
10 components, including systems and components that infringe the Asserted Patents, and
11 induces infringement by others within this District. SanDisk derives substantial revenue
12 from the sale of such systems and components that are distributed within the District,
13 and/or expects or should reasonably expect its actions to have consequences within the
14 District. SanDisk has committed and continues to commit acts of patent infringement,
15 including making, using, selling, offering to sell, and/or importing within this District
16 systems and/or components that infringe one or more of the Asserted Patents, and
17 inducing infringement by others in this District. SanDisk and Western Digital also act in
18 partnership and/or in concert to make, sell, offer to sell, and import SanDisk and Western
19 Digital co-branded products in this District that infringe one or more Asserted Patents.
20 SanDisk has established a significant presence in this forum by manufacturing, using,
21 selling, offering to sell, and importing into this District SD Cards, microSD Cards,
22 eMMC memory, and/or products containing eMMC memory that infringe one or more
23 Asserted Patents in this action.

24 **THE ASSERTED PATENTS**

25 18. On June 2, 2015, the United States Patent and Trademark Office duly and
26 legally issued U.S. Patent No. RE45,542 (“the 542 Patent”), entitled “Method and a
27 System for Determining the Power Consumption in Connection with an Electronic
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1 Device, and an Electronic Device.” A copy of the 542 Patent is attached hereto as Exhibit
2 1.

3 19. MTL owns all substantial right, title, and interest in the 542 Patent, and
4 holds the right to sue and recover damages for infringement thereof, including past
5 infringement.

6 20. On April 21, 2015, the United States Patent and Trademark Office duly and
7 legally issued U.S. Patent No. RE45,486 (“the 486 Patent”), entitled “Method for
8 Addressing a Memory Card, a System Using a Memory Card, and a Memory Card.” A
9 copy of the 486 Patent is attached hereto as Exhibit 2.

10 21. MTL owns all substantial right, title, and interest in the 486 Patent, and
11 holds the right to sue and recover damages for infringement thereof, including past
12 infringement.

13 22. On July 21, 2009, the United States Patent and Trademark Office duly and
14 legally issued U.S. Patent No. 7,565,469 (“the 469 Patent”), entitled “Multimedia Card
15 Interface Method, Computer Program Product and Apparatus.” A copy of the 469 Patent
16 is attached hereto as Exhibit 3.

17 23. MTL owns all substantial right, title, and interest in the 469 Patent, and
18 holds the right to sue and recover damages for infringement thereof, including past
19 infringement.

20 24. On June 23, 2015, the United States Patent and Trademark Office duly and
21 legally issued U.S. Patent No. 9,063,850 (“the 850 Patent”), entitled “Extended
22 Utilization Area for a Memory Device.” A copy of the 850 Patent is attached hereto as
23 Exhibit 4.

24 25. MTL owns all substantial right, title, and interest in the 850 Patent, and
25 holds the right to sue and recover damages for infringement thereof, including past
26 infringement.

27 26. On November 6, 2012, the United States Patent and Trademark Office duly
28 and legally issued U.S. Patent No. 8,307,180 (“the 180 Patent”), entitled “Extended

1 Utilization Area for a Memory Device.” A copy of the 180 Patent is attached hereto as
2 Exhibit 5.

3 27. MTL owns all substantial right, title, and interest in the 180 Patent, and
4 holds the right to sue and recover damages for infringement thereof, including past
5 infringement.

6 28. On September 25, 2007, the United States Patent and Trademark Office duly
7 and legally issued U.S. Patent No. 7,275,186 (“the 186 Patent”), entitled “Memory Bus
8 Checking Procedure” A copy of the 186 Patent is attached hereto as Exhibit 6.

9 29. MTL owns all substantial right, title, and interest in the 186 Patent, and
10 holds the right to sue and recover damages for infringement thereof, including past
11 infringement.

12 30. On November 2, 2010, the United States Patent and Trademark Office duly
13 and legally issued U.S. Patent No. 7,827,370 (“the 370 Patent”), entitled “Partial
14 Permanent Write Protection of a Memory Card and Partially Permanently Write
15 Protected Memory Card.” A copy of the 370 Patent is attached hereto as Exhibit 7.

16 31. MTL owns all substantial right, title, and interest in the 370 Patent, and
17 holds the right to sue and recover damages for infringement thereof, including past
18 infringement.

19 32. On June 15, 2010, the United States Patent and Trademark Office duly and
20 legally issued U.S. Patent No. 7,739,487 (“the 487 Patent”), entitled “Method for Booting
21 a Host Device From an MMC/SD Device, a Host Device Bootable from an MMC/SD
22 Device and an MMC/SD Device Method a Host Device May Booted From.” A copy of
23 the 487 Patent is attached hereto as Exhibit 8.

24 33. MTL owns all substantial right, title, and interest in the 487 Patent, and
25 holds the right to sue and recover damages for infringement thereof, including past
26 infringement.

27 34. As early as October 23, 2013, SanDisk was on notice of the Asserted Patents
28 through discussions with MTL about the Asserted Patents or related patents. SanDisk was

1 further aware of the Asserted Patents and their applicability to SanDisk's products
2 because SanDisk's memory joint-venture partner, Toshiba, took a license to the Asserted
3 Patents in 2016. SanDisk is also aware that other of its competitors have taken licenses to
4 the Asserted Patents for products that practice the same standards as the SanDisk memory
5 products accused in this Complaint. SanDisk is on notice that its actions constituted and
6 continue to constitute infringement of one or more claims of the Asserted Patents.

7 35. On information and belief, Western Digital was on notice of the Asserted
8 Patents and that its actions constituted and continue to constitute infringement of the
9 Asserted Patents as early as its acquisition of SanDisk and/or it entered discussions with
10 MTL.

11 36. SanDisk was a founding member of the organization responsible for the SD
12 Standard. *See* https://www.sdcard.org/about_sda/index.html. SanDisk was also a member
13 of the organization responsible for the JEDEC eMMC Standard. *See*
14 [https://web.archive.org/web/20110505093640/http://www.jedec.org/about-](https://web.archive.org/web/20110505093640/http://www.jedec.org/about-jedec/member-list)
15 [jedec/member-list](http://www.jedec.org/about-jedec/member-list). On information and belief, SanDisk was also on notice of the Asserted
16 Patents and that its actions constituted and continue to constitute infringement of the
17 Asserted Patents as early as those inventions were declared essential to the SD and/or the
18 eMMC Standards.

19 **COUNT I:**

20 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. RE45,542**

21 37. MTL incorporates and realleges paragraphs 1 - 36 above as if fully set forth
22 herein.

23 38. On information and belief, Defendants have infringed and continue to
24 infringe one or more claims of the 542 Patent, including but not limited to Claim 38,
25 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making,
26 using, offering to sell, selling, and/or importing into the United States without authority
27 SD and MicroSD Cards compliant with SD Specification Version 3.00 or higher with
28

1 maximum current consumption greater than 200 mA, as well as Embedded Multimedia
2 Card (“eMMC”) memory, including eMMC memory within Embedded Multichip
3 Packages (“e.MCP” or “eMCP”), compliant with the JEDEC eMMC 4.41 (JESD84-
4 A441) standard or higher (these SD Cards, microSD Cards, and eMMC memory are,
5 collectively, the “542 Patent Accused Products”). The 542 Patent Accused Products
6 include, for example and without limitation, the SanDisk Extreme Pro UHS-I SDXC
7 Cards (SDSDXP-128G-A46), the SanDisk Extreme Plus microSDHC Cards (SDSDQX-
8 016G-A46A), and iNAND 7232.

9 39. By way of example, on information and belief, each of the SD or microSD
10 Cards that are 542 Patent Accused Product is a peripheral device comprising a memory
11 storing a default value for power consumption (for example, 200mA) and a limiting value
12 for power consumption (for example, 400mA, 600mA, and 800mA) of the peripheral
13 device, and a connector configured to connect the peripheral device to an electronic
14 device for supplying power to the peripheral device (for example, the power lines V_{SS1} ,
15 V_{DD} , V_{SS2} of the SD card interface). *See* SD Specifications, Part 1, Physical Layer
16 Specification, Version 3.00 (April 16, 2009), *available at*
17 forums.parallax.com/discussion/download/100220&d= at 14, 51 (“SD Specification
18 3.00”). On information and belief, the maximum power consumption of the peripheral
19 device is set at a startup stage to the default value (for example, power consumption is set
20 to 200mA after initialization), and the limiting value, which is higher than the default
21 value, is defined for the power consumption of the peripheral device (for example,
22 400mA, 600mA, and 800mA). *Id.* at 51. On information and belief, each peripheral
23 device also comprises a processor (for example, a controller) operable to set the
24 maximum power consumption of the peripheral device to a value in the range from the
25 default value to the limiting value—including the default and limiting value (for example,
26 200mA to 800mA). *Id.* at 15, 51. On information and belief, each peripheral device is
27 configured to receive information from the electronic device for setting the maximum
28 power consumption of the peripheral device (for example, Switch Function Command,

1 CMD6, defines the current limit), and the processor operable to set the maximum power
2 consumption is configured to obtain the value—as indicated by the received
3 information—and to set the maximum power consumption of the peripheral device to the
4 value (for example, a switch in power consumption occurs within 8 clocks after the end
5 bit of status data). *Id.* at 48, 51, 60, 78.

6 40. As another example, on information and belief, each eMMC memory that is
7 a 542 Patent Accused Product is a peripheral device comprising a memory storing a
8 default value for power consumption (for example, 200 mA max peak current) and a
9 limiting value for power consumption (for example, max peak currents of 220 mA to 550
10 mA) of the peripheral device, and a connector configured to connect the peripheral device
11 to an electronic device for supplying power to the peripheral device (for example, the
12 power supply connector pins VCC and VCCQ on the eMMC interface). *See* JEDEC
13 Embedded MultiMediaCard (e.MMC) e.MMC/Card Product Standard, (MMCA, 4.41),
14 JESD84-A441 (March 2010) at 15, 50, 127, 138 (“JEDEC eMMC 4.41”). On information
15 and belief, the maximum power consumption of the peripheral device is set at a startup
16 stage to the default value (for example, power consumption is set to 200 mA max peak
17 current after power-on or a software reset), and the limiting value, which is higher than
18 the default value, is defined for the power consumption of the peripheral device (for
19 example, max peak currents of 220 mA up to 550 mA). *Id.* at 50, 138. On information
20 and belief, each peripheral device also comprises a processor (for example, a card
21 interface controller) operable to set the maximum power consumption of the peripheral
22 device to a value in the range from the default value to the limiting value—including the
23 default and limiting value (for example, 200 mA to 550 mA max peak currents). *Id.* at 16,
24 138, 141. On information and belief, each peripheral device is configured to receive
25 information from the electronic device for setting the maximum power consumption of
26 the peripheral device (for example, SWITCH Command, CMD6), and the processor
27 operable to set the maximum power consumption is configured to obtain the value—as
28 indicated by the received information—and to set the maximum power consumption of

1 the peripheral device to the value (for example, a SWITCH command changes the power
2 class by changing registers). *Id.* at 50, 87, 138, 141.

3 41. On information and belief, Defendants have induced and continue to induce
4 infringement of one more claims of the 542 Patent, including but not limited to Claim 38,
5 pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as users, customers,
6 distributors, wholesalers, retailers, affiliates, parents, subsidiaries, importers, or sellers to
7 make, use, offer to sell, sell, and/or import into the United States without authorization
8 the 542 Patent Accused Products. The making, using, offering to sell, selling, and/or
9 importing into the United States constitutes direct infringement, literally or under the
10 doctrine of equivalents, of one or more claims of the 542 Patent by such third parties.
11 Defendants' acts of inducement include: providing the 542 Patent Accused Products or
12 components thereof to third parties and intending them to make, use, offer to sell, sell,
13 and/or import the 542 Patent Accused Products; advertising the 542 Patent Accused
14 Products in the United States and encourages the sale and offer for sale of the 542 Patent
15 Accused Products by other entities by listing stores where SanDisk products, including
16 specifically the Accused Products, can be purchased (for example,
17 <https://www.sandisk.com/home>; <https://www.sandisk.com/oem-design/mobile/inand>;
18 <https://www.sandisk.com/about/where-to-buy>; [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/sd-cards/extremepro-sd-uhs-i)
19 [cards/sd-cards/extremepro-sd-uhs-i](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd);
20 [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)
21 [cards/microsd-cards/extremeplus-microsd](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)); encouraging third parties to communicate
22 directly with Defendants' representatives and providing information about the 542 Patent
23 Accused Products for purposes of technical assistance, design, replacement, sales, and
24 marketing of the 542 Patent Accused Products (for example, <http://kb.sandisk.com/> and
25 links therein; <https://www.sandisk.com/oem-design/mobile/inand>;
26 <https://pct1.sandisk.com/NewSearch.aspx>; <https://link.sandisk.com/welcome.html>).

27 42. Defendants proceeded in this manner despite knowledge of the 542 Patent
28 and their knowledge that specific actions they actively induced and continue to actively
induce on the part of third parties constitute infringement of the 542 Patent. The

1 Defendants had knowledge of the 542 Patent and the infringement of the 542 Patent as
2 early as described in paragraphs 34-36. At the very least, because Defendants have been
3 and remain on notice of the 542 Patent and the accused infringement, they have been and
4 remain willfully blind regarding the infringement they have induced and continue to
5 induce.

6 43. MTL has suffered and continues to suffer damages as a result of Defendants'
7 infringement of the 542 Patent.

8 44. Defendants' infringement of the 542 Patent has been and continues to be
9 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
10 knowledge of the 542 Patent and the infringement of the 542 Patent as early as described
11 in paragraphs 34-36, and have proceeded to infringe the 542 Patent with full knowledge
12 of that patent and its applicability to SanDisk's products. Defendants' intentional,
13 knowing, egregious, culpable, willful, wanton, malicious, bad faith, deliberate,
14 consciously wrongful, and/or flagrant infringement entitles MTL to increased damages
15 under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action
16 under 35 U.S.C. § 285.

17 **COUNT II:**

18 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. RE45,486**

19 45. MTL incorporates and realleges paragraphs 1 - 44 above as if fully set forth
20 herein.

21 46. On information and belief, Defendants have infringed and continue to
22 infringe one or more claims of the 486 Patent, including but not limited to Claims 6, 9-
23 11, 22, 23, 26, and 27 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of
24 equivalents, by making, using, offering to sell, selling, and/or importing into the United
25 States without authority High Capacity (HC) and Extended Capacity (XC) microSD and
26 SD Cards compliant with SD Specification Version 2.00 or higher, as well as eMMC
27 memory, including eMMC memory within eMCP, that is compliant with the JEDEC
28

1 eMMC 4.41 (JESD84-A441) standard or higher (these SD Cards, microSD Cards, and
2 eMMC memory devices are, collectively, the “486 Patent Accused Products”). The 486
3 Patent Accused Products include, for example and without limitation, the SanDisk
4 Extreme Pro UHS-I SDXC Cards (SDSDXP-128G-A46), the SanDisk Extreme Plus
5 microSDHC Cards (SDSDQX-016G-A46A), and iNAND 7232.

6 47. By way of example, on information and belief, each SD or microSD Card
7 that is a 486 Patent Accused Product is a memory card comprising several memory
8 locations for storing data (for example, physical areas on the memory to store one byte),
9 the memory card stores at least one parameter (for example, the C_SIZE parameter is
10 stored in the CSD register), and the memory card is configured so that the number of
11 memory locations of the memory card can be calculated on the basis of the at least one
12 parameter (for example, memory capacity = (C_SIZE + 1) * 512K byte). *See* SD
13 Specifications, Part 1, Physical Layer Simplified Specification, Version 2.00 (Sep. 25,
14 2006), *available at*
15 http://users.ece.utexas.edu/~valvano/EE345M/SD_Physical_Layer_Spec.pdf at 73, 86-87
16 (“SD Specification 2.00”). On information and belief, each memory card is configured so
17 that a specific number of bits is reserved for said at least one parameter (for example, 22
18 bits are reserved in the CSD Register for the C_SIZE parameter) and is configured to
19 have stored therein an addressing data (for example, the value of Bit 30 of the OCR
20 register) that is indicative of at least one addressing method supported (for example,
21 block address format or byte address format). *Id.* at 41, 74. On information and belief, the
22 addressing data indicates either a basic addressing method (for example, if Bit 30 is 0, the
23 memory card is a Standard Capacity SD Memory Card and uses byte address format) or
24 an expanded addressing method (for example, if Bit 30 is 1, the memory card is High
25 Capacity SD Memory Card and uses block address format), and the expanded addressing
26 method enables the addressing of data in a larger number of memory locations than the
27 basic addressing method (for example, in block address format in High Capacity SD
28 Memory Cards the data is addressed in block units of 512 bytes and in byte address

1 format in Standard Capacity SD Memory Cards the data is addressed in byte units). *Id.* at
2 41, 50-51, 74.

3 48. Moreover, on information and belief, each SD or microSD Card that is a 486
4 Patent Accused Product is a memory card wherein data is arranged to be stored and read
5 in the memory card block-by-block (for example, single or multiple block read or write).
6 *Id.* at 18.

7 49. Additionally, on information and belief, each SD or microSD Card that is a
8 486 Patent Accused Product is a memory card wherein the memory locations of one
9 block are arranged to be addressed with one address (for example, block address format).
10 *Id.* at 41.

11 50. On information and belief, each SD or microSD Card that is a 486 Patent
12 Accused Product is a memory card wherein the basic addressing method supports
13 addressing only one memory location with one address (for example, byte address
14 format). *Id.* at 41.

15 51. Moreover, on information and belief, each SD or microSD Card that is a 486
16 Patent Accused Product is a memory card wherein the expanded addressing method
17 supports a higher memory capacity than the basic addressing method (for example, High
18 Capacity compared to Standard Capacity SD or microSD Cards). *Id.* at 41.

19 52. Additionally, on information and belief, each SD or microSD Card that is a
20 486 Patent Accused Product is a memory card that further comprises a register for storing
21 the addressing data (for example, the OCR Register). *Id.* at 74.

22 53. On information and belief, each SD or microSD Card that is a 486 Patent
23 Accused Product is a memory card wherein the stored addressing data comprises one bit
24 (for example, Bit 30 of the OCR Register). *Id.*

25 54. As another example, on information and belief, each eMMC memory device
26 that is a 486 Patent Accused Product is a memory card comprising several memory
27 locations for storing data (for example, physical areas on the memory to store one byte),
28 the memory card stores at least one parameter (for example, the SEC_COUNT parameter

1 is stored in the Extended CSD register), and the memory card is configured so that the
2 number of memory locations of the memory card can be calculated on the basis of the at
3 least one parameter (for example, device density = (SEC_COUNT) x 512B). *See* JEDEC
4 eMMC 4.41 at 24, 113, 126, 136. On information and belief, each memory card is
5 configured so that a specific number of bits is reserved for said at least one parameter (for
6 example, bytes [215:212] of the Extended CSD Register are reserved for the
7 SEC_COUNT parameter) and is configured to have stored therein an addressing data (for
8 example, the OCR register bits [30:29] store values indicate the Access Mode) that is
9 indicative of at least one addressing method supported (for example, byte mode or sector
10 mode). *Id.* at 44, 113, 126. On information and belief, the addressing data indicates either
11 a basic addressing method (for example, 00b indicates byte access mode) or an expanded
12 addressing method (10b indicates sector access mode), and the expanded addressing
13 method enables the addressing of data in a larger number of memory locations than the
14 basic addressing method (for example, in sector access mode the minimum addressable
15 unit is 512 bytes and in byte access mode the minimum addressable unit is one byte). *Id.*
16 at 14, 44, 113, 119, 126.

17 55. Moreover, on information and belief, each eMMC memory device that is a
18 486 Patent Accused Product is a memory card wherein the memory card is a memory
19 card according to the MultiMediaCard specifications. *See generally id.*

20 56. On information and belief, Defendants have induced and continue to induce
21 infringement of one more claims of the 486 Patent, including but not limited to Claim 6,
22 pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as users, customers,
23 distributors, wholesalers, retailers, affiliates, parents, subsidiaries, importers, or sellers to
24 make, use, offer to sell, sell, and/or import into the United States without authorization
25 the 486 Patent Accused Products. The making, using, offering to sell, selling, and/or
26 importing into the United States constitutes direct infringement, literally or under the
27 doctrine of equivalents, of one or more claims of the 486 Patent by such third parties.
28 Defendants' acts of inducement include: providing the 486 Patent Accused Products or

1 components thereof to third parties and intending them to make, use, offer to sell, sell,
2 and/or import the 486 Patent Accused Products; advertising the 486 Patent Accused
3 Products in the United States and encourages the sale and offer for sale of the 486 Patent
4 Accused Products by other entities by listing stores where SanDisk products, including
5 specifically the Accused Products, can be purchased (for example,
6 <https://www.sandisk.com/home>; <https://www.sandisk.com/oem-design/mobile/inand>;
7 <https://www.sandisk.com/about/where-to-buy>; [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/sd-cards/extremepro-sd-uhs-i)
8 [cards/sd-cards/extremepro-sd-uhs-i](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd);
9 [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)
10 [cards/microsd-cards/extremeplus-microsd](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)); encouraging third parties to communicate
11 directly with Defendants' representatives and providing information about the 486 Patent
12 Accused Products for purposes of technical assistance, design, replacement, sales, and
13 marketing of the 486 Patent Accused Products (for example, <http://kb.sandisk.com/> and
14 links therein; <https://www.sandisk.com/oem-design/mobile/inand>;
15 <https://pct1.sandisk.com/NewSearch.aspx>; <https://link.sandisk.com/welcome.html>).

16 57. Defendants proceeded in this manner despite knowledge of the 486 Patent
17 and their knowledge that specific actions they actively induced and continue to actively
18 induce on the part of third parties constitute infringement of the 486 Patent. The
19 Defendants had knowledge of the 486 Patent and the infringement of the 486 Patent as
20 early as described in paragraphs 34-36. At the very least, because Defendants have been
21 and remain on notice of the 486 Patent and the accused infringement, they have been and
22 remain willfully blind regarding the infringement they have induced and continue to
23 induce.

24 58. MTL has suffered and continues to suffer damages as a result of Defendants'
25 infringement of the 486 Patent.

26 59. Defendants' infringement of the 486 Patent has been and continues to be
27 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
28 knowledge of the 486 Patent and the infringement of the 486 Patent as early as described
in paragraphs 34-36, and have proceeded to infringe the 486 Patent with full knowledge

1 of that patent and its applicability to SanDisk's products. Defendants' intentional,
2 knowing, egregious, culpable, willful, wanton, malicious, bad faith, deliberate,
3 consciously wrongful, and/or flagrant infringement entitles MTL to increased damages
4 under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action
5 under 35 U.S.C. § 285.

6 **COUNT III:**

7 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 7,565,469**

8 60. MTL incorporates and realleges paragraphs 1 - 59 above as if fully set forth
9 herein.

10 61. On information and belief, Defendants have infringed and continue to
11 infringe one or more claims of the 469 Patent, including but not limited to Claim 19,
12 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making,
13 using, offering to sell, selling, and/or importing into the United States without authority
14 SD and microSD Cards compliant with SD Specification Version 3.00 or higher with
15 CMD23 (SET_BLOCK_COUNT) functionality, as well as eMMC memory, including
16 eMMC memory within eMCP, compliant with the JEDEC eMMC 4.41 (JESD84-A441)
17 standard or higher (these SD, microSD, and eMMC memory devices are, collectively, the
18 "469 Patent Accused Products"). The 469 Patent Accused Products include, for example
19 and without limitation, the SanDisk Extreme Pro UHS-I SDXC Cards (SDSDXP-128G-
20 A46), SanDisk Extreme Plus microSDHC Cards (SDSDQX-016G-A46A), and iNAND
21 7232.

22 62. By way of example, on information and belief, each SD or microSD Card
23 that is a 469 Patent Accused Product is a memory device comprising a bus interface
24 configured to be coupled to a host through a bus having a data signal line (for example,
25 the SD card nine-line bus interface is configured to be coupled to an SD Memory Card
26 Host and has four data signal lines, DAT0-3), and the bus interface comprises a driver at
27 the memory device coupled to a data signal line and a receiver at the memory device
28

1 coupled to a data signal line (for example, each data line is bidirectional and so each must
2 be coupled to a driver to send data and a receiver to receive data). SD Specification 3.00
3 at 141; SanDisk microSD, microSDHC and microSDXC Cards OEM Product Manual,
4 No. 80-36-03335, Revision 2.5 (Sept. 2015) at 10 (“OEM Product Manual”). On
5 information and belief, the receiver is operable to receive information comprising a first
6 information portion and a second information portion from the host over the data signal
7 line (for example, a first and second data block) within a command execution (for
8 example, within a CMD25 multiple block write operation), and the driver is operable to
9 drive a change of state of the data signal line to the host within the command execution
10 (for example, the SD Card is operable to drive the data signal line from HIGH to LOW,
11 “busy,” within the CMD25 command execution). SD Specification 3.00 at 11, 38, 74. On
12 information and belief, the bus interface also comprises a controller coupled to the driver
13 and to the receiver (for example, the card interface controller) that is operable to cause
14 the change of state of the data signal line to have a first meaning after receiving the first
15 information portion within the command execution and to have a second meaning
16 different from the first meaning after receiving the second information portion within the
17 command execution from the host over the data signal line (for example, when CMD23 is
18 used in conjunction with CMD25, after receiving any data block other than the final data
19 block the data signal line is held LOW for the duration of time that the buffers are busy
20 (up to 250 ms) and the meaning of the change of state of the data signal line from HIGH
21 to LOW is “buffer busy”, and after receiving the final data block the data signal line is
22 held LOW for the duration of time that the card is in the programming state (up to 500
23 ms) and the meaning of the change of state of the data signal line from HIGH to LOW is
24 “programming busy”). SD Specification 3.00 at 11, 15, 34, 38, 67, 74, 87, 122; OEM
25 Product Manual at 1.

26 63. As another example, on information and belief, each eMMC memory device
27 that is a 469 Patent Accused Product is a memory device comprising a bus interface
28 configured to be coupled to a host through a bus having a data signal line (for example,

1 the eMMC device has a bus interface with ten communication lines configured to be
2 coupled to a MultiMediaCard Host and has eight data signal lines, DAT0:7), and the bus
3 interface comprises a driver at the memory device coupled to a data signal line and a
4 receiver at the memory device coupled to a data signal line (for example, each data line is
5 bidirectional and so each must be coupled to a driver to transmit data and a receiver to
6 receive data). *See* JEDEC eMMC 4.41 at 163. On information and belief, the receiver is
7 operable to receive information comprising a first information portion and a second
8 information portion from the host over the data signal line (for example, a first and
9 second data block) within a command execution (for example, within a
10 WRITE_MULTIPLE_BLOCK CMD25 operation), and the driver is operable to drive a
11 change of state of the data signal line to the host within the command execution (for
12 example, the eMMC device is operable to generate a busy signal on the data signal line
13 within the CMD25 command execution). *Id.* at 19, 89, 163, 182. On information and
14 belief, the bus interface also comprises a controller coupled to the driver and to the
15 receiver (for example, the card interface controller) that is operable to cause the change
16 of state of the data signal line to have a first meaning after receiving the first information
17 portion within the command execution and to have a second meaning different from the
18 first meaning after receiving the second information portion within the command
19 execution from the host over the data signal line (for example, after receiving any data
20 block other than the final data block the meaning of the change of state of the data signal
21 line is “buffer busy,” and after receiving the final data block the meaning of the change of
22 state of the data signal line is “programming busy”). *Id.* at 16, 107.

23 64. On information and belief, Defendants have induced and continue to induce
24 infringement of one more claims of the 469 Patent, including but not limited to Claim 19,
25 pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as users, customers,
26 distributors, wholesalers, retailers, affiliates, parents, subsidiaries, importers, or sellers to
27 make, use, offer to sell, sell, and/or import into the United States without authorization
28 the 469 Patent Accused Products. The making, using, offering to sell, selling, and/or

1 importing into the United States constitutes direct infringement, literally or under the
2 doctrine of equivalents, of one or more claims of the 469 Patent by such third parties.
3 Defendants' acts of inducement include: providing the 469 Patent Accused Products or
4 components thereof to third parties and intending them to make, use, offer to sell, sell,
5 and/or import the 469 Patent Accused Products; advertising the 469 Patent Accused
6 Products in the United States and encourages the sale and offer for sale of the 469 Patent
7 Accused Products by other entities by listing stores where SanDisk products, including
8 specifically the Accused Products, can be purchased (for example,
9 <https://www.sandisk.com/home>; <https://www.sandisk.com/oem-design/mobile/inand>;
10 <https://www.sandisk.com/about/where-to-buy>; [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/sd-cards/extremepro-sd-uhs-i)
11 [cards/sd-cards/extremepro-sd-uhs-i](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd);
12 [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)
13 [cards/microsd-cards/extremeplus-microsd](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)); encouraging third parties to communicate
14 directly with Defendants' representatives and providing information about the 469 Patent
15 Accused Products for purposes of technical assistance, design, replacement, sales, and
16 marketing of the 469 Patent Accused Products (for example, <http://kb.sandisk.com/> and
17 links therein; <https://www.sandisk.com/oem-design/mobile/inand>;
18 <https://pct1.sandisk.com/NewSearch.aspx>; <https://link.sandisk.com/welcome.html>).

19 65. Defendants proceeded in this manner despite knowledge of the 469 Patent
20 and their knowledge that specific actions they actively induced and continue to actively
21 induce on the part of third parties constitute infringement of the 469 Patent. The
22 Defendants had knowledge of the 469 Patent and the infringement of the 469 Patent as
23 early as described in paragraphs 34-36. At the very least, because Defendants have been
24 and remain on notice of the 469 Patent and the accused infringement, they have been and
25 remain willfully blind regarding the infringement they have induced and continue to
26 induce.

27 66. MTL has suffered and continues to suffer damages as a result of
28 Defendants' infringement of the 469 Patent.

1 67. Defendants' infringement of the 469 Patent has been and continues to be
2 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
3 knowledge of the 469 Patent and the infringement of the 469 Patent as early as described
4 in paragraphs 34-36, and have proceeded to infringe the 469 Patent with full knowledge
5 of that patent and its applicability to SanDisk's products. Defendants' intentional,
6 knowing, egregious, culpable, willful, wanton, malicious, bad faith, deliberate,
7 consciously wrongful, and/or flagrant infringement entitles MTL to increased damages
8 under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action
9 under 35 U.S.C. § 285.

10 **COUNT IV:**

11 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 9,063,850**

12 68. MTL incorporates and realleges paragraphs 1 - 67 above as if fully set forth
13 herein.

14 69. On information and belief, Defendants have infringed and continue to
15 infringe one or more claims of the 850 Patent, including but not limited to Claims 10 and
16 13, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by
17 making, using, offering to sell, selling, and/or importing into the United States without
18 authority SD and microSD Cards compliant with SD Specification Version 3.00 or
19 higher with Speed Class Control Command Functionality, as well as eMMC memory,
20 including eMMC memory within eMCP, compliant with the JEDEC eMMC 4.51
21 (JESD84-B451) standard or higher (these SD Cards, microSD Cards, and eMMC
22 memory devices are, collectively, the "850 Patent Accused Products"). The 850 Patent
23 Accused Products include, for example and without limitation, the SanDisk Extreme Pro
24 UHS-I SDXC Cards (SDSDXP-128G-A46), SanDisk Extreme Plus microSDHC Cards
25 (SDSDQX-016G-A46A); and iNAND 7232.

26 70. By way of example, on information and belief, each SD or microSD Card
27 that is a 850 Patent Accused Product is a memory device comprising one more predefined
28

1 access profiles (for example, Speed Class profiles Class 2, Class 4, Class 6, and Class 10)
2 to determine how access to the memory device is configured for at least one usage of the
3 memory device (for example, a write using a Speed Class), and a controller configured to
4 receive at least one first command (for example, a card interface controller) to activate at
5 least one of the one more predefined access profiles associated with the memory device
6 (for example, Initialization Command ACMD41 activates at least one Speed Class profile
7 by setting the XPC bit, command frame bit 36, to 1) and to receive at least one second
8 command (for example, CMD20, the Speed Class Control Command) to configure access
9 to the memory device in accordance with the at least one of the one more predefined
10 access profiles such that at least a portion of the memory device is configured according
11 to the at least one of the more or more predefined access profiles for the at least one
12 usage (for example, CMD20 configures the Allocation Units, "AUs," which are portions
13 of the user area of the memory device, such that the host writes sequentially in an AU
14 according to the Speed Class Profile to ensure recording meets the minimum performance
15 rate). SD Specification 3.00 at 7, 15, 27, 89, 93, 108-09, 113-15, 117-19.

16 71. As another example, on information and belief, each eMMC memory device
17 that is a 850 Patent Accused Product is a memory device comprising one more predefined
18 access profiles (for example, an eMMC device has up to 15 contexts and has context
19 configuration information that may be associated with a context) to determine how access
20 to the memory device is configured for at least one usage of the memory device (for
21 example, a read or write), and a controller configured to receive at least one first
22 command (for example, an eMMC Device Controller) to activate at least one of the one
23 more predefined access profiles associated with the memory device (for example, CMD6
24 writes a non-zero value into bits [1:0] of a context configuration register) and to receive
25 at least one second command (for example, CMD23) to configure access to the memory
26 device in accordance with the at least one of the one more predefined access profiles such
27 that at least a portion of the memory device is configured according to the at least one of
28 the more or more predefined access profiles for the at least one usage (for example,

1 CMD23 with the subsequent read and/or write commands defines a portion of the
2 memory to be configured in accordance with the designated context). JEDEC Embedded
3 MultiMediaCard (e.MMC), Electrical Standard 4.51, JESD84-B451 (June 2012) at 7, 41,
4 81, 103, 105, 149, 152, 184 (“JEDEC eMMC 4.51”).

5 72. On information and belief, the memory device comprises an embedded
6 MultiMedia Card (eMMC) device.

7 73. On information and belief, Defendants have induced and continue to induce
8 infringement of one more claims of the 850 Patent, including but not limited to Claim 10,
9 pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as users, customers,
10 distributors, wholesalers, retailers, affiliates, parents, subsidiaries, importers, or sellers to
11 make, use, offer to sell, sell, and/or import into the United States without authorization
12 the 850 Patent Accused Products. The making, using, offering to sell, selling, and/or
13 importing into the United States constitutes direct infringement, literally or under the
14 doctrine of equivalents, of one or more claims of the 850 Patent by such third parties.
15 Defendants’ acts of inducement include: providing the 850 Patent Accused Products or
16 components thereof to third parties and intending them to make, use, offer to sell, sell,
17 and/or import the 850 Patent Accused Products; advertising the 850 Patent Accused
18 Products in the United States and encourages the sale and offer for sale of the 850 Patent
19 Accused Products by other entities by listing stores where SanDisk products, including
20 specifically the Accused Products, can be purchased (for example,
21 <https://www.sandisk.com/home>; <https://www.sandisk.com/oem-design/mobile/inand>;
22 <https://www.sandisk.com/about/where-to-buy>; [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/sd-cards/extremepro-sd-uhs-i)
23 [cards/sd-cards/extremepro-sd-uhs-i](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd);
24 [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)
25 [cards/microsd-cards/extremeplus-microsd](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)); encouraging third parties to communicate
26 directly with Defendants’ representatives and providing information about the 850 Patent
27 Accused Products for purposes of technical assistance, design, replacement, sales, and
28 marketing of the 850 Patent Accused Products (for example, <http://kb.sandisk.com/> and

1 links therein; <https://www.sandisk.com/oem-design/mobile/inand;>
2 <https://pct1.sandisk.com/NewSearch.aspx>; <https://link.sandisk.com/welcome.html>).

3 74. Defendants proceeded in this manner despite knowledge of the related 180
4 Patent and the 850 Patent and their knowledge that specific actions they actively induced
5 and continue to actively induce on the part of third parties constitute infringement of the
6 850 Patent. The Defendants had knowledge of the 850 Patent and the related 180 Patent,
7 and the infringement of the 850 Patent as early as as described in paragraphs 34-36. At
8 the very least, because Defendants have been and remain on notice of the 850 Patent and
9 the accused infringement, they have been and remain willfully blind regarding the
10 infringement they have induced and continue to induce.

11 75. MTL has suffered and continues to suffer damages as a result of
12 Defendants' infringement of the 850 Patent.

13 76. Defendants' infringement of the 850 Patent has been and continues to be
14 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
15 knowledge of the 850 Patent and the related 180 Patent and the infringement of the 850
16 Patent as early as described in paragraphs 34-36, and have proceeded to infringe the 850
17 Patent with full knowledge of that patent and its applicability to SanDisk's products.
18 SanDisk's intentional, knowing, egregious, culpable, willful, wanton, malicious, bad
19 faith, deliberate, consciously wrongful, and/or flagrant infringement entitles MTL to
20 increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in
21 prosecuting this action under 35 U.S.C. § 285.

22 **COUNT V:**

23 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 8,307,180**

24 77. MTL incorporates and realleges paragraphs 1 - 76 above as if fully set forth
25 herein.

26 78. On information and belief, Defendants have infringed and continue to
27 infringe one or more claims of the 180 Patent, including but not limited to Claim 17-19,
28

1 21, 22, and 27, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of
2 equivalents, by making, using, offering to sell, selling, and/or importing into the United
3 States without authority SD and microSD Cards compliant with SD Specification
4 Version 3.00 or higher with Speed Class Control Command Functionality, as well as
5 eMMC memory, including eMMC memory within eMCP, compliant with the JEDEC
6 eMMC 4.51 (JESD84-B451) standard or higher (these SD Cards, microSD Cards, and
7 eMMC memory devices are, collectively, the “180 Patent Accused Products”). The 180
8 Patent Accused Products include, for example and without limitation, SanDisk Extreme
9 Pro UHS-I SDXC Cards (SDSDXP-128G-A46), SanDisk Extreme Plus microSDHC
10 Cards (SDSDQX-016G-A46A), and iNAND 7232.

11 79. By way of example, on information and belief, each SD or microSD Card
12 that is a 180 Patent Accused Product is a memory device comprising one more registers
13 for storing one or more predefined access profiles associated with the memory device (for
14 example, SSR register stores one more predefined access profiles in SPEED_CLASS),
15 and the predefined access profiles (for example, Speed Class profiles Class 2, Class 4,
16 Class 6, and Class 10) are effective for determining how access to the memory device is
17 configured for at least one usage (for example, a write using a Speed Class). SD
18 Specification 3.00 at 7, 15, 89-90. On information and belief, the memory device also
19 comprises a controller (for example, a card interface controller) for receiving one or more
20 commands related to at least one usage of said memory device (for example, via the
21 CMD line), and the one or more commands activate the one or more predefined access
22 profiles associated with the memory device (for example, Initialization Command
23 ACMD41 activates at least one Speed Class profile by setting the XPC bit, command
24 frame bit 36, to 1). *Id.* at 15, 27, 90. On information and belief, the controller is also for
25 configuring access to the memory device in accordance with at least one of the
26 predefined access profiles so that the memory device is effective for the at least one
27 usage (for example, CMD20, the Speed Class Control Command, configures the
28 Allocation Units, “AUs,” which are portions of the user area of the memory device, such

1 that the host writes sequentially in an AU according to the Speed Class Profile to ensure
2 recording meets the minimum performance rate). *Id.* at 93, 108-09, 113-15, 117-19.

3 80. On information and belief, one or more access profiles correspond to at least
4 one of a random and a sequential mode of access (for example, the Speed Class host
5 writes sequentially in an AU). *Id.* at 109, 113, 115.

6 81. On information and belief, one or more access profiles corresponds to at
7 least one of a read, a write, an erase, and a modify attribute operation (for example, the
8 Speed Class host writes sequentially in an AU). *Id.* at 109, 113, 115.

9 82. On information and belief, one or more access profiles are adapted to
10 produce an optimized performance associated with said memory device (for example, a
11 Speed Class Profile ensures recording meets the minimum performance rate). *Id.* at 7,
12 117.

13 83. On information and belief, the performance is optimized in accordance with
14 at least one of: data throughput, lifetime, and power consumption associated with the
15 memory device (for example, a Speed Class Profile ensures recording meets the
16 minimum performance rate). *Id.* at 7, 117.

17 84. On information and belief, one or more access profiles are associated with
18 one or more partitions of the memory device (for example, the AUs are physical
19 boundaries of the memory device and are partitions of the memory device). *Id.* at 93, 108.

20 85. As another example, on information and belief, each eMMC memory device
21 that is a 180 Patent Accused Product is a memory device comprising one more registers
22 for storing one or more predefined access profiles associated with the memory device (for
23 example, up to fifteen registers, CONTEXT_CONF[51:37], available to store context
24 configuration information), and the predefined access profiles (for example, an eMMC
25 device has up to 15 contexts and has context configuration information that may be
26 associated with a context) are effective for determining how access to the memory device
27 is configured for at least one usage (for example, a read or write). JEDEC eMMC 4.51 at
28 81, 152, 184. On information and belief, the memory device also comprises a controller

1 for receiving one or more commands (for example, an eMMC Device Controller) related
2 to at least one usage of said memory device, and the one or more commands activate the
3 one or more predefined access profiles associated with the memory device (for example,
4 CMD6 writes a non-zero value into bits [1:0] of a context configuration register). *Id.* at 7,
5 41, 81, 103, 149, 184. On information and belief, the controller is also for configuring
6 access to the memory device in accordance with at least one of the predefined access
7 profiles so that the memory device is effective for the at least one usage (for example,
8 CMD23 with the subsequent read and/or write commands defines a portion of the
9 memory to be configured in accordance with the designated context). *Id.* at 81, 105.

10 86. On information and belief, one or more access profiles correspond to at least
11 one of a random and a sequential mode of access (for example, the Large Unit context
12 flag indicates if the context is following Large Unit rules, and the Large Unit is the
13 smallest unit that can be used for large sequential read/write operations). *Id.* at 81-82,
14 184.

15 87. On information and belief, one or more access profiles corresponds to at
16 least one of a read, a write, an erase, and a modify attribute operation (for example, a
17 context can be configured as a read-only context, a write-only context, or a read/write
18 context). *Id.* at 81-82, 184.

19 88. On information and belief, one or more access profiles are adapted to
20 produce an optimized performance associated with said memory device (for example, a
21 Speed Class Profile ensures recording meets the minimum performance rate). *Id.* at 7,
22 117.

23 89. On information and belief, the performance is optimized in accordance with
24 at least one of: data throughput, lifetime, and power consumption associated with the
25 memory device (for example, for a large, sequential write pattern, all of the commands
26 that fill a unit work faster because they can reduce overhead). *Id.* at 81.

27 90. On information and belief, Defendants have induced and continue to induce
28 infringement of one more claims of the 180 Patent, including but not limited to Claim 17-

1 19, 21, 22, and 27, pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as
2 users, customers, distributors, wholesalers, retailers, affiliates, parents, subsidiaries,
3 importers, or sellers to make, use, offer to sell, sell, and/or import into the United States
4 without authorization the 180 Patent Accused Products. The making, using, offering to
5 sell, selling, and/or importing into the United States constitutes direct infringement,
6 literally or under the doctrine of equivalents, of one or more claims of the 180 Patent by
7 such third parties. Defendants' acts of inducement include: providing the 180 Patent
8 Accused Products or components thereof to third parties and intending them to make,
9 use, offer to sell, sell, and/or import the 180 Patent Accused Products; advertising the 180
10 Patent Accused Products in the United States and encourages the sale and offer for sale of
11 the 180 Patent Accused Products by other entities by listing stores where SanDisk
12 products, including specifically the Accused Products, can be purchased (for example,
13 <https://www.sandisk.com/home>; <https://www.sandisk.com/oem-design/mobile/inand>;
14 <https://www.sandisk.com/about/where-to-buy>; [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/sd-cards/extremepro-sd-uhs-i)
15 [cards/sd-cards/extremepro-sd-uhs-i](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd);
16 [https://www.sandisk.com/home/memory-](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)
17 [cards/microsd-cards/extremeplus-microsd](https://www.sandisk.com/home/memory-cards/microsd-cards/extremeplus-microsd)); encouraging third parties to communicate
18 directly with Defendants' representatives and providing information about the 180 Patent
19 Accused Products for purposes of technical assistance, design, replacement, sales, and
20 marketing of the 180 Patent Accused Products (for example, <http://kb.sandisk.com/> and
21 links therein; <https://www.sandisk.com/oem-design/mobile/inand>;
22 <https://pct1.sandisk.com/NewSearch.aspx>; <https://link.sandisk.com/welcome.html>).

22 91. Defendants proceeded in this manner despite knowledge of the 180 Patent
23 and their knowledge that specific actions they actively induced and continue to actively
24 induce on the part of third parties constitute infringement of the 180 Patent. The
25 Defendants had knowledge of the 180 Patent and the infringement of the 180 Patent as
26 early as described in paragraphs 34-36. At the very least, because Defendants have been
27 and remain on notice of the 180 Patent and the accused infringement, they have been and
28

1 remain willfully blind regarding the infringement they have induced and continue to
2 induce.

3 92. MTL has suffered and continues to suffer damages as a result of
4 Defendants' infringement of the 180 Patent.

5 93. Defendants' infringement of the 180 Patent has been and continues to be
6 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
7 knowledge of the 180 Patent and the infringement of the 180 Patent as early as
8 described in paragraphs 34-36, and have proceeded to infringe the 180 Patent with full
9 knowledge of that patent and its applicability to SanDisk's products. Defendants'
10 intentional, knowing, egregious, culpable, willful, wanton, malicious, bad faith,
11 deliberate, consciously wrongful, and/or flagrant infringement entitles MTL to increased
12 damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting
13 this action under 35 U.S.C. § 285.

14 **COUNT VI:**

15 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 7,275,186**

16 94. MTL incorporates and realleges paragraphs 1 - 93 above as if fully set forth
17 herein.

18 95. On information and belief, Defendants have infringed and continue to
19 infringe one or more claims of the 186 Patent, including but not limited to Claims 16, 17,
20 and 19 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by
21 making, using, offering to sell, selling, and/or importing into the United States without
22 authority eMMC memory, including eMMC memory within eMCP, compliant with the
23 JEDEC eMMC 4.41 (JESD84-A441) standard or higher (the "186 Patent Accused
24 Products"). The 186 Patent Accused Products include, for example and without
25 limitation, iNAND 7232.

26 96. By way of example, on information and belief, each 186 Patent Accused
27 Product is a memory unit for use in an electronic device, the electronic device having a
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1 host electronic module for processing data and a data bus for operatively connecting the
2 host module to the memory unit. *See* JEDEC eMMC 4.41 at 163. The memory unit
3 comprising a receiving mechanism (for example, a card interface controller) for receiving
4 a first bit pattern from the host module through the data bus (for example, a specific data
5 pattern or test pattern on each selected data line during the bus testing procedure). *See*
6 JEDEC eMMC 4.41 at 16, 50, 205. Each memory unit further comprises a conversion
7 mechanism (for example, a card interface controller), responsive to the received first bit
8 pattern, for providing a second bit pattern on the data bus (for example, the reversed
9 pattern sent from the card to the host), wherein the second bit pattern has at least a part of
10 a complimentary pattern of the received first bit pattern (for example the reversed bit
11 pattern), and wherein the host electronic module containing each memory unit is adapted
12 to compare the first bit pattern to the second bit pattern as received in the host module
13 (for example, an XNOR operation in step 30 of the bus testing procedure), for
14 determining a usable bus width of the data bus (for example, by masking the result of the
15 comparison of the XNOR operation in step 30 for either 8, 4, or 1 data lines in step 31 of
16 the bus testing procedure) based on a predetermined relationship between the first bit
17 pattern and the complementary pattern of the first bit pattern (for example, the result of
18 the masking in step 31 of the bus testing procedure should be 0 [step 32]). *Id.* at 16, 50-
19 51, 204-06.

20 97. Additionally, in each memory unit the received first bit pattern has an
21 alternate pattern of '0' and '1' and the second bit pattern is complementary to the first bit
22 pattern. *Id.* at 205.

23 98. Moreover, the data bus for each memory unit has a maximum bus width (for
24 example, an 8 bit data bus) and the memory unit has a number of data pins (for example,
25 DAT0-DAT7 = 8 data pins) for operatively connecting to the data bus, and wherein the
26 number of data pins is equal to the number of data bits conveyable in the maximum bus
27 width (for example, an 8 bit data bus and 8 data pins). *Id.* at 141, 186.

1 99. On information and belief, Defendants have induced and continue to induce
2 infringement of one more claims of the 186 Patent, including but not limited to Claims
3 16, 17, and 19, pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as users,
4 customers, distributors, wholesalers, retailers, affiliates, parents, subsidiaries, importers,
5 or sellers to make, use, offer to sell, sell, and/or import into the United States without
6 authorization the 186 Patent Accused Products. The making, using, offering to sell,
7 selling, and/or importing into the United States constitutes direct infringement, literally or
8 under the doctrine of equivalents, of one or more claims of the 186 Patent by such third
9 parties. Defendants' acts of inducement include: providing the 186 Patent Accused
10 Products or components thereof to third parties and intending them to make, use, offer to
11 sell, sell, and/or import the 186 Patent Accused Products; advertising the 186 Patent
12 Accused Products in the United States and encourages the sale and offer for sale of the
13 186 Patent Accused Products (for example, [https://www.sandisk.com/oem-](https://www.sandisk.com/oem-design/mobile/inand)
14 [design/mobile/inand](https://www.sandisk.com/oem-design/mobile/inand)); encouraging third parties to communicate directly with
15 Defendants' representatives and providing information about the 186 Patent Accused
16 Products for purposes of technical assistance, design, sales, and marketing of the 186
17 Patent Accused Products (for example, [https://www.sandisk.com/oem-](https://www.sandisk.com/oem-design/mobile/inand)
18 [design/mobile/inand](https://www.sandisk.com/oem-design/mobile/inand)).

19 100. Defendants proceeded in this manner despite knowledge of the 186 Patent
20 and their knowledge that specific actions they actively induced and continue to actively
21 induce on the part of third parties constitute infringement of the 186 Patent. The
22 Defendants had knowledge of the 542 Patent and the infringement of the 542 Patent as
23 early as described in paragraphs 34-36. At the very least, because Defendants have been
24 and remain on notice of the 186 Patent and the accused infringement, they have been and
25 remain willfully blind regarding the infringement they have induced and continue to
26 induce.

27 101. MTL has suffered and continues to suffer damages as a result of Defendants'
28 infringement of the 186 Patent.

1 102. Defendants' infringement of the 186 Patent has been and continues to be
2 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
3 knowledge of the 186 Patent and the infringement of the 186 Patent as early as described
4 in paragraphs 34-36, and have proceeded to infringe the 186 Patent with full knowledge
5 of that patent and its applicability to SanDisk's products. Defendants' intentional,
6 knowing, egregious, culpable, willful, wanton, malicious, bad faith, deliberate,
7 consciously wrongful, and/or flagrant infringement entitles MTL to increased damages
8 under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action
9 under 35 U.S.C. § 285.

10 **COUNT VII:**

11 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 7,827,370**

12 103. MTL incorporates and realleges paragraphs 1 - 102 above as if fully set forth
13 herein.

14 104. On information and belief, Defendants have infringed and continue to
15 infringe one or more claims of the 370 Patent, including but not limited to Claims 12, 13,
16 16, 17, 18, and 19 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of
17 equivalents, by making, using, offering to sell, selling, and/or importing into the United
18 States without authority eMMC memory, including eMMC memory within eMCP,
19 compliant with the JEDEC eMMC 4.41 (JESD84-A441) standard or higher (the "370
20 Patent Accused Products"). The 370 Patent Accused Products include, for example and
21 without limitation, iNAND 7232.

22 105. By way of example, on information and belief, each 370 Patent Accused
23 Product is an apparatus comprising an interface controller (for example, a card interface
24 controller) arranged to write protect at least one part of a memory of said apparatus (for
25 example, the addressed write-protect group) by a command (for example,
26 SET_WRITE_PROT). *See* JEDEC eMMC 4.41 at 16, 63. On information and belief,
27 each apparatus further comprises a data register (for example, the Extended CSD
28

1 Register) arranged to define at least one bit to indicate that permanent write protection of
2 the at least one part of the memory is allowed (for example, Bit[2] and Bit[4] of the
3 USER_WP[171] slice of the Extended CSD Register). *Id.* at 128, 146. Each apparatus
4 further comprises, on information and belief, a controller (for example, the card interface
5 controller) arranged to set the at least one bit (for example, Bit[2] and Bit[4] of the
6 USER_WP[171] slice of the Extended CSD Register) in order to redefine the command
7 (for example, SET_WRITE_PROT) to allow permanent write protection, that cannot be
8 un-protected by a command (for example, a permanent clear write protect command), of
9 the at least one part of the memory of said apparatus (for example, the addressed write-
10 protect group). *Id.* at 16, 63-64, 146. On information and belief, the controller in each
11 apparatus (for example, the card interface controller) is further arranged to execute the
12 command in order to permanently write protect said at least one part of the memory (for
13 example, CMD28 or SET_WRITE_PROT). *Id.* at 16, 89.

14 106. Further, on information and belief, the memory in each apparatus is arranged
15 to comprise at least one memory group (for example, the size of the write protect group is
16 set by WP_GRP_SIZE [36:32]). *Id.* at 121.

17 107. Further, on information and belief, each apparatus comprises an additional
18 data register (for example, the CSD_Register) arranged to control existence and
19 characteristics of the at least one part of the memory (for example, the write protect group
20 size WP_GRP_SIZE [36:32]). *Id.* at 116, 121.

21 108. Further, the additional data register in each apparatus, on information and
22 belief, is arranged to define access to the at least one part of the memory (for example,
23 the write protect group enable WP_GRP_ENABLE slice of the CSD Register). *Id.* at 116,
24 121.

25 109. Further, on information and belief, the memory in each apparatus is arranged
26 to implement different memory technologies (for example, FLASH and ROM memory).

27 110. Further, on information and belief, the apparatus is a multimedia card
28 (MMC).

1 111. On information and belief, Defendants have induced and continue to induce
2 infringement of one more claims of the 370 Patent, including but not limited to Claims
3 12, 13, 16, 17, 18, and 19, pursuant to 35 U.S.C. § 271(b) by encouraging third parties
4 such as users, customers, distributors, wholesalers, retailers, affiliates, parents,
5 subsidiaries, importers, or sellers to make, use, offer to sell, sell, and/or import into the
6 United States without authorization the 370 Patent Accused Products. The making, using,
7 offering to sell, selling, and/or importing into the United States constitutes direct
8 infringement, literally or under the doctrine of equivalents, of one or more claims of the
9 370 Patent by such third parties. Defendants' acts of inducement include: providing the
10 370 Patent Accused Products or components thereof to third parties and intending them
11 to make, use, offer to sell, sell, and/or import the 370 Patent Accused Products;
12 advertising the 370 Patent Accused Products in the United States and encourages the sale
13 and offer for sale of the 370 Patent Accused Products (for example,
14 <https://www.sandisk.com/oem-design/mobile/inand>); encouraging third parties to
15 communicate directly with Defendants' representatives and providing information about
16 the 370 Patent Accused Products for purposes of technical assistance, design, sales, and
17 marketing of the 370 Patent Accused Products (for example,
18 <https://www.sandisk.com/oem-design/mobile/inand>).

19 112. Defendants proceeded in this manner despite knowledge of the 370 Patent
20 and their knowledge that specific actions they actively induced and continue to actively
21 induce on the part of third parties constitute infringement of the 370 Patent. The
22 Defendants had knowledge of the 370 Patent and the infringement of the 370 Patent as
23 early as described in paragraphs 34-36. At the very least, because Defendants have been
24 and remain on notice of the 370 Patent and the accused infringement, they have been and
25 remain willfully blind regarding the infringement they have induced and continue to
26 induce.

27 113. MTL has suffered and continues to suffer damages as a result of Defendants'
28 infringement of the 370 Patent.

1 114. Defendants' infringement of the 370 Patent has been and continues to be
2 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
3 knowledge of the 370 Patent and the infringement of the 370 Patent as early as described
4 in paragraphs 34-36, and have proceeded to infringe the 370 Patent with full knowledge
5 of that patent and its applicability to SanDisk's products. Defendants' intentional,
6 knowing, egregious, culpable, willful, wanton, malicious, bad faith, deliberate,
7 consciously wrongful, and/or flagrant infringement entitles MTL to increased damages
8 under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action
9 under 35 U.S.C. § 285.

10 **COUNT VIII:**

11 **DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 7,739,487**

12 115. MTL incorporates and realleges paragraphs 1 - 114 above as if fully set forth
13 herein.

14 116. On information and belief, Defendants have infringed and continue to
15 infringe one or more claims of the 487 Patent, including but not limited to Claims 20 and
16 21, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by
17 making, using, offering to sell, selling, and/or importing into the United States without
18 authority eMMC memory, including eMMC memory within eMCP, compliant with the
19 JEDEC eMMC 4.41 (JESD84-A441) standard or higher (the "487 Patent Accused
20 Products"). The 487 Patent Accused Products include, for example and without
21 limitation, iNAND 7232.

22 117. By way of example, on information and belief, each 487 Patent Accused
23 Product is a peripheral device having an MMC/SD-interface (for example, an MMC-
24 interface) configured for booting (for example, the boot operation mode) a bootable host
25 device configured for being booted from a peripheral device having an MMC/SD
26 interface. *See* JEDEC eMMC 4.41 at 34. Each peripheral device, on information and
27 belief, further comprises an MMC/SD-interface (for example, an MMC-interface),
28

1 provided with power terminal (for example, Vcc and Vccq pins), a data bus with data bus
2 terminals (for example, the DAT0-DAT7 pins), a clock line with a clock terminal (for
3 example, the CLK pin), and a command line with command terminal (for example, the
4 CMD pin). *Id.* at 15-16. On information and belief, each peripheral device further
5 comprises a peripheral device controller (for example, a card interface controller),
6 connected to said MMC/SD-interface. *Id.* at 16. Each peripheral device further
7 comprises, on information and belief, a memory module (for example, the memory core),
8 connected to said peripheral device controller, and wherein said peripheral device
9 controller is configured for sending the first data (for example, first boot data) of a
10 predefined storage area (for example, a boot area or user area) via a data bus, starting with
11 a start bit of the first data frame (for example, start bit “S”), when receiving power at the
12 terminal of said MMC/SD-interface of said peripheral device, and a low signal at the
13 command terminal of said MMC/SD-interface during power-up (for example, holding the
14 command line for at least 74 cycles during power up). *Id.* at 16, 35-37, 108, 165.

15 118. Further, on information and belief, each peripheral device controller is
16 further configured to send said first data of a predefined storage area via data bus, only
17 when receiving a low signal at said command terminal of said MMC/SD-interface before
18 or during power-up during the transmission of between 24 to 148, preferably between 60
19 and 100 and most preferably to 74 initialization clock signals. *Id.* at 36, 38, 165.

20 119. On information and belief, Defendants have induced and continue to induce
21 infringement of one more claims of the 487 Patent, including but not limited to Claim 20
22 and 21, pursuant to 35 U.S.C. § 271(b) by encouraging third parties such as users,
23 customers, distributors, wholesalers, retailers, affiliates, parents, subsidiaries, importers,
24 or sellers to make, use, offer to sell, sell, and/or import into the United States without
25 authorization the 487 Patent Accused Products. The making, using, offering to sell,
26 selling, and/or importing into the United States constitutes direct infringement, literally or
27 under the doctrine of equivalents, of one or more claims of the 487 Patent by such third
28 parties. Defendants’ acts of inducement include: providing the 487 Patent Accused

1 Products or components thereof to third parties and intending them to make, use, offer to
2 sell, sell, and/or import the 487 Patent Accused Products; advertising the 487 Patent
3 Accused Products in the United States and encourages the sale and offer for sale of the
4 487 Patent Accused Products (for example, [https://www.sandisk.com/oem-](https://www.sandisk.com/oem-design/mobile/inand)
5 [design/mobile/inand](https://www.sandisk.com/oem-design/mobile/inand)); encouraging third parties to communicate directly with
6 Defendants' representatives and providing information about the 487 Patent Accused
7 Products for purposes of technical assistance, design, sales, and marketing of the 370
8 Patent Accused Products (for example, [https://www.sandisk.com/oem-](https://www.sandisk.com/oem-design/mobile/inand)
9 [design/mobile/inand](https://www.sandisk.com/oem-design/mobile/inand)).

10 120. Defendants proceeded in this manner despite knowledge of the 487 Patent
11 and their knowledge that specific actions they actively induced and continue to actively
12 induce on the part of third parties constitute infringement of the 487 Patent. The
13 Defendants had knowledge of the 487 Patent and the infringement of the 487 Patent as
14 early as described in paragraphs 34-36. At the very least, because Defendants have been
15 and remain on notice of the 487 Patent and the accused infringement, they have been and
16 remain willfully blind regarding the infringement they have induced and continue to
17 induce.

18 121. MTL has suffered and continues to suffer damages as a result of
19 Defendants' infringement of the 487 Patent.

20 122. Defendants' infringement of the 487 Patent has been and continues to be
21 willful, deliberate, and in disregard of MTL's patent rights. The Defendants had
22 knowledge of the 542 Patent and the infringement of the 487 Patent as early as described
23 in paragraphs 34-36, and have proceeded to infringe the 487 Patent with full knowledge
24 of that patent and its applicability to SanDisk's products. Defendants' intentional,
25 knowing, egregious, culpable, willful, wanton, malicious, bad faith, deliberate,
26 consciously wrongful, and/or flagrant infringement entitles MTL to increased damages
27 under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action
28 under 35 U.S.C. § 285.

PRAYER FOR RELIEF

MTL respectfully prays for relief as follows:

- (a) a judgment that Defendants have infringed and continue to infringe one or more claims of the Asserted Patents;
- (b) a judgment that Defendants have induced infringement and continue to induce infringement of one or more claims of the Asserted Patents;
- (c) a judgment that Defendants have willfully infringed one or more claims of the Asserted Patents;
- (d) a judgment awarding MTL all damages adequate to compensate for Defendants' infringement, and in no event less than a reasonable royalty for Defendants' infringement, including all pre-judgment and post-judgment interest at the maximum rate allowed by law;
- (e) a judgment awarding MTL treble damages pursuant to 35 U.S.C. § 284 as a result of Defendants' willful conduct;
- (f) a judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding MTL its reasonable attorneys fees; and
- (g) a judgment awarding MTL such other relief as the Court may deem just and equitable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff MTL demands a trial by jury of this action.

Dated: December 6, 2016

/s/ Matthew D. Powers

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