

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE NORTHERN DISTRICT OF CALIFORNIA
3

4 TECHNOLOGY PROPERTIES LIMITED LLC
and MCM PORTFOLIO LLC,

No. C 14-3640 CW

5 Plaintiffs,

ORDER GRANTING
MOTION FOR SUMMARY
JUDGMENT

6 v.

7 (Docket No. 479)

8 CANON INC. et al.,

9 Defendants.

10 _____ /
11 Defendants Canon Inc. and Canon U.S.A., Inc. (collectively
12 Canon) file this motion for summary judgment against Plaintiffs
13 Technology Properties Limited LLC and MCM Portfolio LLC. As
14 explained below, the Court grants Canon's motion because Canon's
15 products do not infringe the patents-in-suit.

16 BACKGROUND

17 Plaintiffs assert two patents in this case: Patent Numbers
18 7,295,443 (the '443 patent) and 7,522,424 (the '424 patent). The
19 patents describe technology that enables devices to read different
20 types of removable memory cards. The parties do not dispute that
21 the '424 patent is a continuation of the '443 patent and that the
22 two patents contain the same figures and specification, except for
23 a few sentences that were added during the prosecution of the '424
24 patent. Additionally, the parties do not dispute the following
25 facts concerning two types of removable memory cards: SD Cards and
26 MMC Cards. SD cards have nine contact pads, numbered one through
27 nine, while MMC cards have seven contact pads, numbered one
28 through seven. For both cards, the signal on pins two through

1 seven are identical, with seven used for data. The SD card uses
2 four signal lines in total for data, while the MMC card uses only
3 one: number seven.

4 Plaintiffs assert that many Canon products have infringed the
5 patents. The parties have agreed to six representative products.
6 Docket Nos. 413, 416. Plaintiffs allege that at least one of the
7 representative products infringes each of the following claims:
8 claims 1, 3, 4, 7, 9, 11, 12 and 14 of the '443 patent and claims
9 25, 26, 28 and 29 of the '424 patent. Response Br. at 3 n.3;
10 Busciano Dec., Ex. A, Busciano Opening ¶¶ 101-04. The four
11 independent claims within this set discuss mapping:

12 Claim 1, '443 patent: "A multi-memory media adapter
13 comprising . . . a controller chip to map at least a subset
14 of the at least one set of contact pins to a set of signal
lines or power lines, based on an identified type of a memory
media card."

15 Claim 9, '443 patent: "A system comprising . . . a controller
16 integrated into the multi-memory media adapter to map at
least a subset of the set of contact pins to a set of signal
17 lines or power lines, based an [sic] identified type of the
memory media card."

18 Claim 25, '424 patent: "Apparatus comprising . . . means for
19 mapping power, ground or data signals between said
interconnection pins and said one or more contact pins
20 depending upon the identification of the type of memory card
inserted into said port."

21 Claim 28, '424 patent: "Apparatus comprising . . . means for
22 mapping power, ground or data signals between said
interconnection means and said one or more contact pins
23 depending upon the identification of the type of memory card
inserted into said port."

24 The mapping terms were added during the prosecution of the '443
25 patent in light of the Hung-Ju patent, described below.

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The Court construed the claims in an Order dated September 18, 2015. Docket No. 334, Claim Construction Order.¹ There, the Court concluded that "to map" means "to assign," id. at 11, and that "means for mapping" is a means plus function claim in which mapping is the function and the structure is "a controller," id. at 17. The Court noted that it was beyond the scope of claim construction to conclude whether "mapping" must be physical or logical. Id. at 11. Also, the Court declined to incorporate into its construction that "'mapping' must mean varying the assignments such that using signal lines in some circumstances but not in others does not constitute mapping." Id. at 10. Specifically, the Court declined Canon's invitation to further limit the terms in a way that excludes card readers that accept SD and MMC memory cards in the same slot using a shared set of contact pins. The Court reasoned that Canon's argument was less one of claim construction than it was of non-infringement. It explained that if the accused devices have "a single port and a shared set of contact pins for both SD and MMC cards, it may be that the accused devices do not infringe the patents-in-suit." Id.

20 Canon makes two main arguments in its motion for summary
21 judgment: 1) Canon did not infringe the patents because
22 Plaintiffs' reading of the Claim Construction Order is overbroad;
23 and 2) if Plaintiffs' reading is correct then the patents are
24 invalid based on prior art. Plaintiffs argue that a genuine
25 dispute of material fact exists as to each of these issues,

26 ¹ This order was later amended. Docket No. 359. The
27 amendment did not impact the construction of the terms at issue
28 here.

1 particularly because Canon mischaracterizes Plaintiffs' reading of
2 the Claim Construction Order. Because the Court concludes that
3 Canon did not infringe the patents, it need not decide the issues
4 related to invalidity.

LEGAL STANDARD

In patent cases, the parties' burdens on summary judgment differ based on whether the moving party has the burden of proof on the issue at trial. Where a moving party does not have the burden of proof, it "nonetheless bears the initial burden of coming forward with sufficient evidence to demonstrate that there is no material issue of fact that would preclude summary judgment, and that it is entitled to judgment as a matter of law." Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc., 200 F.3d 795, 806 (Fed. Cir. 1999). The burden then shifts to the opposing party, who need only show that the moving party is not entitled to judgment or that there are material issues of fact. Id. at 806-07. By contrast, where the moving party has the burden of proof on an issue at trial, it must show that there is no genuine issue of material fact as to every element of that issue. See Meyers v. Asics Corp., 974 F.2d 1304, 1307 (Fed. Cir. 1992).

21 Canon is entitled to summary judgment of noninfringement only
22 if the facts and inferences, when viewed in the light most
23 favorable to Plaintiffs, would not persuade a reasonable jury to
24 return a verdict in favor of Plaintiffs. Bus. Objects, S.A. v.
25 Microstrategy, Inc., 393 F.3d 1366, 1371-72 (Fed. Cir. 2005)
26 (citing Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255
27 (1986)). "Summary judgment of noninfringement is proper when no
28 reasonable jury could find that every limitation recited in a

1 properly constructed claim is found in the accused device either
2 literally or under the doctrine of equivalents." Advanced Steel
3 Recovery, LLC v. X-Body Equip., Inc., 808 F.3d 1313, 1317 (Fed.
4 Cir. 2015).

5 DISCUSSION

6 To establish literal infringement² following claim
7 construction, "every limitation set forth in a claim must be found
8 in an accused product, exactly." Southwall Techs., Inc. v.
9 Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995). Literal
10 infringement is an issue of fact. Id.

11 Canon argues that its controller does not assign anything,
12 but rather "merely implements the SD and MMC standards." Reply
13 Br. at 4. The "connection paths along which signals travel . . .
14 are predetermined in advance." Stevenson Dec. ¶ 66. The only
15 difference is that three of the pins are not used for MMC cards
16 but those three pins are used for data for SD cards. See id.
17 ¶¶ 62-63. Plaintiffs argue that the controller assigns signals to
18 signal lines based on whether an SD or MMC card is identified.
19 The controller both assigns contact pins to signal lines and
20 assigns signals between interconnection means and contact pins.
21 Buscaino Opening ¶¶ 70-92. In particular, three signal lines that
22 are not used in MMC cards are assigned data in SD cards. Further,
23 the four SD data contact pads that accept data receive parallel
24 data signals, while the one MMC data contact pad receives serial
25 data signals. Id. This means that one contact pad switches
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27 ² Plaintiffs make no argument regarding the doctrine of
28 equivalents in opposing this motion.

1 between parallel and serial data signals depending on the card
2 inserted.

3 The mapping claim limitations were first added during
4 prosecution of the '443 patent to overcome a § 102 rejection based
5 on the Hung-Ju patent (Patent Number 6,402,558). Hertko Dec., Ex.
6 11, Hung-Ju. The original, pre-amended claims were directed to a
7 memory card adapter with multiple slots of varying sizes, each
8 equipped with a unique set of contact pins that come into contact
9 with a corresponding memory card. The examiner rejected the
10 claims based on Hung-Ju, which disclosed a memory card adapter
11 "suitable for different types of memory cards by physically
12 'positioning contact pins and entrance slots in various
13 locations.'" Hertko Dec., Ex. 10 at 2554. In response to the
14 examiner's rejection, the applicant amended patented claims 1 as
15 described above. In distinguishing the amended claims from Hung-
16 Ju, the applicant stated:

17 As shown, Hung-Ju discusses a memory card adaptor suitable
18 for different types of memory cards by physically
19 "positioning contact pins and entrance slots in various
locations". Thus, Hung-Ju suggests using different sets of
contact pins for different types of memory cards. By
20 physically placing memory cards in different positions in the
adaptor, different contact pins are in contact with the
memory cards. Thus, Hung-Ju teaches away from the claim
21 limitation using a controller chip to "map at least a subset
of the at least one set of contact pins to a set of signal
lines or power lines" where one set of pins is mapped to
22 different signals depending on the type of identified memory
card, as recited in Applicant's independent claims 1 and 12
[patented claims 1 and 9].

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24
25 Id. at 2554-55 (emphasis in original).

26 By changing the claims from using different sets of contact
27 pins for different memory cards to using only one set of contact
28 pins for a variety of memory cards, the amended claims mark a

1 significant departure from the nature of the originally claimed
2 invention. However, the applicant maintained that the amended
3 claims were supported by the original specification, particularly
4 pointing to Figure 4 in the specification as an example. Id. at
5 2554.

6 Figure 4 of the '443 patent shows an embodiment of the
7 invention that utilizes twenty-one shared connector pins to
8 accommodate three different types of memory cards--namely, Smart
9 Media, MMC/SD, and Memory Stick--each with its own distinctive
10 pin-outs. A person of ordinary skill in the art would understand
11 from this table that, upon insertion of a Smart Media card, the
12 controller will "map" or "assign" the nineteen requisite Smart
13 Media card signals (e.g., D0/-WPSW, D1, D2) to the connector pins
14 1-19. Alternatively, when an MMC or a SD card is inserted, the
15 controller will "map" or "assign" the nine requisite MMC/SD card
16 signals (e.g., -WP, -CD, MCMD) to connector pins 2-4, 10-13, 18,
17 20, and 21. When a Memory Stick card is inserted, the controller
18 will "map" or "assign" the six requisite Memory Stick card signals
19 (e.g., -CD, BS, SDIO) to connector pins 5-7, 18, 20, and 21.

20 However, and significantly, Figure 4 makes no distinction
21 between MMC and SD cards, putting them in the same column and
22 treating them as a single entity. In fact, throughout the
23 specification of the patents-in-suit, MMC and SD cards are
24 consistently treated as one and the same. The specification
25 refers to the duo as "MMC/SD" twenty-two times, without making any
26 distinction between them, despite their well-known differences.
27 In particular, Figure 2 of the patents-in-suit shows a "Prior Art"
28 multimedia card adapter as having a set of nine contact pins (214)

1 that "provide interfaces for MMC/SD." See, e.g., '443 Patent at
2 2:24-28. According to the patents, this adapter was "available as
3 a standard commercial product" at the time of the invention. Id.
4 at 2:9-10.

5 Hung-Ju likewise described MMC and SD cards as sharing a slot
6 and a set of contact pins. Specifically, Hung-Ju described its
7 Figure 1, which shows a multimedia card adapter with a single slot
8 106b and one set of contact pins 104b for both MMC and SD cards,
9 as follows: "The card insertion slot 106b can accommodate a multi-
10 media card [i.e., MMC card] or a digital card [i.e., SD card].
11 Because the eight contact pins 104b are fixed at appropriate
12 position on the lower frame 102b, the multi-media card [MMC] or
13 the digital card [SD] can be inserted into the card insertion slot
14 106b with the input/output contact points facing down." Hung-Ju
15 at 3:31-36.

16 MMC and SD cards are treated interchangeably in the
17 specification of the patents-in-suit and in Hung-Ju because the SD
18 card was designed such that an MMC card could be inserted into an
19 SD card socket--that is, they could share a single slot. Hertko
20 Dec., Ex. 6, SD Specification at 19-20. As explained above, the
21 primary differences between SD and MMC cards are that the newer SD
22 cards have nine contact pins/pads (four of which are for data) and
23 are capable of transferring data either serially on one data pin
24 or in parallel (i.e., four bits at a time) on all four data pins
25 while the MMC cards have seven contact pins/pads (only one of
26 which is for data) and can only transfer data serially (i.e., one
27 bit at a time). Hertko Dec, Ex. 5, Infringement Contention Chart
28 at 3.

1 Yet Plaintiffs' infringement theory is based essentially on
2 the accused products' use of a slot with a shared set of contact
3 pins for MMC and SD cards in compliance with the SD Specification.
4 Specifically, the accused products are Canon printer/copiers,
5 digital cameras, and card readers that include multi-memory card
6 connectors for receiving at least SD and MMC memory media cards.
7 Buscaino Opening ¶¶ 53, 55. Plaintiffs contend that the accused
8 products infringe the "mapping" limitations in the '443 patent in
9 the following manner. When the controller identified the presence
10 of an SD card, it would assign four parallel data signals to four
11 data signal lines, thereby assigning four contact pins to four
12 data signal lines. When the controller identified the presence of
13 an MMC card, it would assign one serial data signal to one of the
14 four data signal lines, thereby assigning one contact pin to one
15 data signal line. Opp. Br. at 5-6. Thus, Plaintiffs'
16 infringement contention with regard to the "mapping" limitation
17 bears no discernable difference from the initialization and data
18 transfer process as set forth in the SD Specification.

19 The International Trade Commission's opinion further supports
20 the Court's conclusion that reading an SD or MMC card in the Canon
21 Products requires no mapping. It found that, "in order to
22 communicate with the SD and MMC cards, no mapping is required.
23 Similarly, the mere use of additional signal lines in some
24 circumstances but not others, based upon fixed assignments, does
25 not constitute mapping." Hertko Dec., Ex. 22 at 21.

26 Plaintiffs also contend that "Canon's [non-infringement]
27 argument ignores the entirety of the mapping limitations which are
28 found in the accused products, but absent in the SD

1 Specification." Opp. Br. at 9. Specifically, Plaintiffs contend
2 that infringement of the mapping limitations is not based solely
3 on sharing a set of contact pins or supporting more than one type
4 of memory card in the same slot, but relates, among other things,
5 to how the controller assigns signals to signal lines based on the
6 identified type of memory card that has been inserted and how the
7 signal lines, interconnection pins or means, and contact pins are
8 arranged. In particular, Plaintiffs contend that the "mapping"
9 limitations require "common physical connection to the
10 controller," id. at 14, which is found in the accused products but
11 not in the SD Specification. However, Plaintiffs fail to offer
12 any evidence from the patent or the prosecution history that
13 supports a construction that "mapping" requires "common physical
14 connection to the controller." To the extent that Plaintiffs are
15 arguing that the phrase "a controller chip to map at least a
16 subset of the at least one set of contact pins to a set of signal
17 lines or power lines" in the '443 patent should be construed as "a
18 controller chip to map at least a subset of the at least one set
19 of contact pins to a common set of signal lines or power lines,"
20 such a construction is unwarranted.

21 Plaintiffs also contend that transferring data in parallel or
22 in serial constitutes mapping. See Opp. Br. at 14. However,
23 claim 25 of the '424 patent, for example, does not distinguish
24 between different types of data; instead, it describes "mapping
25 power, ground or data signals." Further, as described above, SD
26 cards are capable of transferring data either serially or in
27 parallel. Having the capacity to transfer data in either form
28 does not amount to assignment.

Because the patents-in-suit and Hung-Ju make clear references to MMC/SD cards, and because it was well-known at the time of the invention that the implementation of MMC/SD cards is controlled by the SD Specification that dictates how the cards share a slot and a set of contact pins, the claimed "mapping" limitations are not met by the functionality of accepting SD and MMC memory cards in the same slot using a shared set of contact pins. Because the accused Canon products accept SD and MMC memory cards in compliance with the SD Specification, and because no "assignment" occurs, the Canon products do not infringe the mapping limitations here.

CONCLUSION

13 The Court GRANTS Canon's motion for summary judgment that
14 Canon's accused products do not infringe Plaintiffs' asserted
15 patents. Canon's invalidity claims are moot. The Court directs
16 the Clerk's Office to enter judgment in favor of Defendants and
17 against Plaintiffs in this case. Defendants shall recover their
18 costs.

19 IT IS SO ORDERED.

21 || Dated: September 16, 2016

Chadiealitt

Claudia Wilken
United States District Judge