UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

DYNAMICS INC.,

Plaintiff,

-v-

SAMSUNG ELECTRONICS CO., LTD., *et al.*,

Defendants.

19-CV-6479 (JPO)

OPINION AND ORDER

J. PAUL OETKEN, District Judge:

Dynamics Inc. ("Dynamics") brings this action against Samsung Electronics Co., Ltd., and various affiliates (collectively, "Samsung") alleging infringement of US Patent No. 8,827,153 (the "'153 Patent"). Before the Court now are the parties' cross-motions for summary judgment. For the reasons that follow, Samsung's motion is granted and Dynamics's motion is denied.

I. Background

A. Factual Background

The following facts are drawn from the parties' Local Rule 56.1 statements and responses. (ECF Nos. 124 ("Def. SOF"); 137 ("Pl. SOF"); 149 ("Def. Reply SOF"); 159 ("Pl. Reply SOF").) Where necessary, citations to additional parts of the record are included.

After over five years of litigation before this Court, the Patent and Trademark Appeals Board ("PTAB"), and the Court of Appeals for the Federal Circuit, this case now involves just two questions: whether the '153 Patent is valid, and whether Samsung committed infringement.

The patent relates to a now-obsolete technology[1] called "magnetic secure transmission" ("MST"), which "mimicked the swiping of traditional magnetic stripe credit cards wirelessly through a card reader, such as a POS [('point-of-sale')] terminal located in a retail store." (Def. SOF ¶ 18.) A classic payment card—e.g., a plastic card carried in a wallet—stores data in a magnetic stripe, which is communicated to a payment terminal when the card is swiped. (ECF No. 150-2 ("Apsel Rep.") ¶ 22-23.) Portions of data stored on those magnetic stripes are called "tracks." (*Id.* ¶ 22; *see also* ECF No. 128-12 ("Zatkovich Rep.") ¶ 73.) "The content, formatting, and physical location of these tracks are standardized by the International Organization for Standardization" ("ISO"). (Apsel Rep. ¶ 22; *see also* Zatkovich Rep. ¶ 74.) "MST created the same type of magnetic field that is generated when a magnetic stripe card is swiped through a reader." (Def. SOF ¶ 19; *see also* Apsel Rep. ¶ 22 (describing "magnetic emulation" as "the communication of data normally found on magnetic stripe payment cards . . . using electrically generated magnetic fields").)

To emulate the function of traditional magnetic stripes, a Samsung device first stores "certain data, such as a proxy credit card number corresponding to [a] payment card, . . . on the device." (*Id.* ¶ 22.) When users want to make a purchase, they then initiate a transaction by pressing a "button." *See* U.S. Patent No. 8,827,153 (filed July 17, 2012) cl.5; *see also Dynamics Inc. v. Samsung Elecs. Co., Ltd.*, No. 19-CV-6479, 2023 WL 5702503, at *6 (S.D.N.Y. Sept. 5, 2023). The term "button" refers to a "human interface device" that a user can employ to begin a transaction. (*See* ECF No. 128-18 ("Zatkovich Dep.") at 23:2-23:8.) On Samsung devices, a

[1] Samsung stopped manufacturing devices with this technology in 2021 "due to the growing popularity of near-field communication (NFC)," an alternate technology for contactless payments. (ECF No. 123 ("Mem.") at 10 n.3.)

user may "initiate a payment transaction" by being "authenticated by the Samsung device, such as by a fingerprint." (ECF No. 125-3 ("Goldberg Rep.") ¶ 7; *see also* Zatkovich Rep. ¶ 65.)

As with all computer operations, this user authentication then begins a multi-step process. The parties agree that, prior to authentication, a "complete track" is not stored on Samsung devices. (*See* Def. SOF ¶ 23; Zatkovich Dep. at 25:1-25:19, 26:9-26:16; Apsel Rep. ¶ 48.) Rather, Samsung devices persistently store "proxy credit card information" from which track data may be assembled at the time of a transaction. (Apsel Rep. ¶ 50.) This includes a "digital primary account number" ("not the credit card number"), along with a "token expiration date" and a "service code" for some cards. (*Id.*) This information is "insufficient to execute a payment transaction" unless combined with certain "data . . . created only at the time of a transaction," such as "a timestamp, counters, and a cryptograph MST verification value." (*Id.*) According to one of Samsung's experts, "Samsung Pay operates this way for security reasons, and is required to do so by the card issuers," such that any information "intercepted by a nefarious third party during an MST transaction . . . will not be usable in subsequent transactions." (*Id.*) Dynamics agrees that "[b]ecause the actual payment tracks generated for an MST transaction contained transaction-specific data, new and distinct versions of [tracks] needed to be created for each MST transaction." (Pl. SOF ¶ 33.)

Because a Samsung device has "no way of knowing whether [it] is near a magnetic stripe reader," it "send[s] multiple transmissions of the MST data . . . in case the device is not near a magnetic stripe reader when the transaction is first authorized." (Goldberg Rep. ¶ 7.) Similarly, because "Samsung's devices are not able to determine the type of reader that they are sending data to," they "transmit a number of different arrangements of the data to account for differences

in the point of sale terminals that might be encountered by a user." (*Id.*)[2] For example, "the device may have two different digital representations of the same track data[, e.g.,] . . . one in the forward direction and one in a reverse direction," in order to "simulate swiping the card in either direction." (Zatkovich Rep. ¶ 139.) Transmitting multiple representations of the same magnetic stripe data may also help "optimize[] for different magnetic stripe readers . . . to increase the likelihood that [the transmission] will be successfully read." (*Id.* ¶ 140.)

While Samsung devices do not store complete track data prior to the *initiation* of a transaction, Dynamics contends that they do store such track data prior to the *transmission* of that data to a card reader. (*See* Zatkovich Dep. at 24:9-26:15 (arguing that the Samsung devices infringe the '153 Patent as long as "a complete track is created at the time a payment transaction is initiated," even if it "does not exist in the device beforehand"); *see also* Def. SOF ¶¶ 23-24; Pl. SOF ¶¶ 23-24.)[3] Specifically, once the various representations of tracks described above are processed, "there will be a digital representation of track data stored in 3 different variables" in Samsung's source code. (Zatkovich Rep. ¶ 172.) From this, one of Dynamics's experts

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[2] These data, once compiled, are transmitted in what Samsung internally refers to as "lumps." (*Id.* ¶ 9; *see also* ECF No. 150-3 at 8.)

[3] At various points, Dynamics "disputes" Samsung's contention that no complete tracks are stored prior to initiation of a transaction by pointing to a file in Samsung's source code called "PayConfig.xml." (*E.g.*, Pl. SOF ¶¶ 23, 27.) But the payconfig.xml file does not store complete track data prior to initiation of a transaction. Rather, payconfig.xml is a "is a text file that tells the Samsung Pay software how and in what order to construct and transmit tracks" at transaction time. (Apsel Rep. ¶ 106.) Dynamics does not dispute this characterization. (*See* ECF No. 138-3 at 22-27.) Nor does Dynamics contend that the payconfig.xml file contains any of the transaction-specific information—such as a timestamp—necessary to construct a complete track. Perhaps a slightly better example for Dynamics's argument is the software function "process_prepare_mst_data," which Dynamics contends "constructs the track" and stores it in variables such as "track" and "mst_track." (*Id.* at 29-38.) But Dynamics does not claim that the variables defined in the "process_prepare_mst_data" function persistently store track data before a transaction is initiated or after one is completed, even if they temporarily hold track data during a transaction.

concludes that "there are multiple points in time where the Samsung device provides a plurality of digital representations of track data in memory at the same time." (*Id.* ¶ 223.) Samsung agrees that "MST constructs payment tracks when an MST transaction is initiated," and that, as part of this process, "track data . . . [are] generated and is temporarily held in [runtime variables]." (Def. Reply SOF ¶¶ 128, 137; *see also id.* ¶¶ 129, 132.)

B. Procedural Background

Dynamics filed the complaint in this action on July 12, 2019 (ECF No. 1) and filed an amended complaint on December 20, 2022 (ECF No. 60). The Court dismissed Dynamics's breach of contract claims on April 5, 2024 (ECF No. 110), leaving only Dynamics's patent infringement claim based on the '153 Patent. Samsung moved for summary judgment on June 14, 2024 (ECF No. 122) and filed a supporting memorandum of law (ECF No. 123 ("Mem.")). Dynamics opposed Samsung's motion and filed a cross-motion for summary judgment on July 12, 2024. (ECF No. 136 ("Opp.").) Samsung opposed Dynamics's motion and replied in support of its own motion on August 2, 2024. (ECF No. 148 ("Def. Reply").) Dynamics replied in support of its cross-motion for summary judgment on August 23, 2024. (ECF No. 158 ("Pl. Reply").)[4] The parties filed statements of material facts in connection with their motions. (*See* Def. SOF, Pl. SOF, Def. Reply SOF, Pl. Reply SOF.)

[4] Samsung has filed a motion to strike this filing, arguing that it constitutes an unauthorized sur-reply because it addresses arguments that Samsung raised in its own motion for summary judgment of non-infringement. (*See* ECF No. 167 at 2.) The Court disagrees and denies the motion to strike (ECF No. 166). As Dynamics rightly notes, the issues of infringement and non-infringement are one and the same in this case (ECF No. 170 at 2), and it was proper for Dynamics to address Samsung's arguments for non-infringement when replying in support of its own arguments for infringement. The Court's rules concerning sur-reply memoranda are designed to avoid unnecessary supplemental briefs, not to artificially constrain the scope of arguments the parties can present in support of their positions. The Court therefore considers Dynamics's reply brief but not the additional arguments in Samsung's motion to strike.

II. Legal Standard

A. Summary Judgment

Summary judgment is appropriate when "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A fact is material if it "might affect the outcome of the suit under the governing law." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A dispute is genuine if, considering the record as a whole, a rational jury could find in favor of the non-moving party. *Ricci v. DeStefano*, 557 U.S. 557, 586 (2009). In deciding a motion for summary judgment, a court must consider the evidence "in the light most favorable to the non-moving party and draw all reasonable inferences in its favor." *Allen v. Coughlin*, 64 F.3d 77, 79 (2d Cir. 1995).

B. Patent Infringement

"Infringement can be established in either of two ways: through direct infringement (which is also known as literal infringement), or through the doctrine of equivalents." *Baseball Quick, LLC v. MLB Advanced Media L.P.*, No. 11-CV-1735, 2014 WL 6850965, at *4 (S.D.N.Y. Dec. 4, 2014), *aff'd*, 623 F. App'x. 1012 (Fed. Cir. 2015). Dynamics has not advanced an argument pursuant to the doctrine of equivalents and has conceded Samsung's argument that any infringement finding here must be literal, so the Court proceeds on that basis. (*Cf.* Mem. at 15-16.)[5] "In determining whether there has been literal infringement, [the Federal Circuit] applies a two step analysis. Once the claims have been correctly construed to determine their scope, the

[5] "The doctrine of equivalents provides that 'a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is "equivalence" between the elements of the accused product or process and the claimed elements of the patented invention.'" *Bobcar Media, LLC v. Aardvark Event Logistics, Inc.*, No. 16-CV-885, 2017 WL 74729, at *4 (S.D.N.Y. Jan. 4, 2017) (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997)).

claims must be compared to the accused device. To find literal infringement, each limitation of the claim must be present in the accused device. Any deviation from the claim precludes such a finding." *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1330 (Fed. Cir. 2001) (citation omitted). "Claim construction . . . is a matter of law." *J & M Corp. v. Harley-Davidson, Inc.*, 269 F.3d 1360, 1366 (Fed. Cir. 2001). "The comparison of claims to the accused device or method, and the corresponding determination of infringement . . . is a question of fact." *Id.* "An infringement issue is properly decided upon summary judgment when no reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents." *Gart v. Logitech, Inc.*, 254 F.3d 1334, 1339 (Fed. Cir. 2001). Finally, while a court may segregate and decide certain claim construction issues in pre-summary judgment proceedings, it is also appropriate for the court to engage in further claim construction at summary judgment. *See MicroStrategy Inc. v. Bus. Objects, S.A.*, 429 F.3d 1344, 1350 (Fed. Cir. 2005).

III. Discussion

Although the parties raise several disputes of law and fact, the determinative one for this opinion is whether Samsung Pay's runtime handling and processing of data constitutes the "retriev[al] from a memory" of that data. *Cf.* '153 Patent cl.5.[6] Following a claim construction

[6] Dynamics also argues that the phrase "operable to" in the '153 Patent means that any device hypothetically capable of infringing does infringe. (Opp. at 11-13.) The Federal Circuit has articulated a general principle "that a device is capable of being modified to operate in an infringing manner is not sufficient, by itself, to support a finding of infringement." *Telemac*, 247 F.3d at 1330; *see also Nazomi Commc'ns, Inc. v. Nokia Corp.*, 739 F.3d 1339, 1342 (Fed. Cir. 2014) ("Here, the structure (i.e., . . . software) necessary to enable . . . hardware to process stack-based instructions (i.e., Java bytecodes) is not only inactive, it is not even present on the accused products. The installation of . . . software is not unlocking existing functionality, but adding new functionality not currently present. There is no infringement."). Accordingly, district courts considering similar language have construed "operable to" to require more than a mere technical capability. *See, e.g.*, *TQ Delta, LLC v. CommScope Holding Co., Inc.*, No. 21-CV-310, 2022 WL 2071073, at *9 (E.D. Tex. June 8, 2022) (construing "operable to" to mean "configured to"

hearing, this Court construed the terms "retrieved" and "memory" according to their "plain and ordinary meaning." *Dynamics*, 2023 WL 5702503, at *6. The parties now dispute the scope of that plain and ordinary meaning, which is a matter of law for this Court to decide.[7] *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) ("A determination that a claim term 'needs no construction' or has the 'plain and ordinary meaning' may be inadequate when a term has more than one 'ordinary' meaning or when reliance on a term's 'ordinary' meaning does not resolve the parties' dispute."). Ordinary meaning must be determined from the perspective of a person of ordinary skill in the art ("POSITA") at the time of the invention. *See Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1142 (Fed. Cir. 2005) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)). "The person of ordinary skill in the art views the claim term in the light of the entire intrinsic record." *Id.* "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* (quoting *Phillips*, 415 F.3d at 1316).

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rather than "capable of"); *TQ Delta, LLC v. ADTRAN, Inc.*, No. 14-CV-954, 2019 U.S. Dist. LEXIS 188640, *14 (D. Del. Oct. 31, 2019) ("Here the apparatus is not 'operable to' because the default settings make it inoperable to execute the accused functionality, and the apparatus is not reasonably able to be set up in a manner that would allow a user to enable these actions."). This is also the only plausible construction; otherwise, any computing device with sufficient processing power would meet the computing-related limitations of the patent.

[7] While Dynamics objects that "claim construction was concluded long ago" (Opp. at 12), the mere fact that the Court held a *Markman* hearing and issued a claim construction opinion does not prevent the Court from "clarif[ying] its previous construction [at] summary judgment." *Network Com., Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1358 n.4 (Fed. Cir. 2005). Moreover, "a district court may (and sometimes must) revisit, alter, or supplement its claim constructions . . . to the extent necessary to ensure that final constructions serve their purpose of genuinely clarifying the scope of claims for the finder of fact." *In re Papst Licensing Digit. Camera Pat. Litig.*, 778 F.3d 1255, 1261 (Fed. Cir. 2015); *see also Pfizer, Inc. v. Teva Pharms., USA, Inc.*, 429 F.3d 1364, 1377 (Fed. Cir. 2005) ("[A] conclusion of law such as claim construction is subject to change upon the development of the record . . . .").

According to Dynamics, the ordinary meaning of memory encompasses both persistent storage (e.g., a hard drive) and transitory storage (e.g., a buffer or array that holds specific data only during a computing operation). (*See* Pl. Reply SOF ¶ 134 ("It is beyond dispute that 'random access memory' [('RAM')] is memory. Samsung's response admits [that] temporary variables are created and exist during an MST transaction—they can only exist in random access memory as testified by Dr. Apsel." (emphasis omitted)); *see also* Zatkovich Dep. at 25:11-25:19 ("Q: [I]f a complete track is created at the time a payment transaction is initiated but does not exist in the device beforehand, in your opinion, that practices the claim? . . . A: According to the specification, I believe that's correct."); Pl. SOF ¶ 132 ("The bit stream array is a variable stored in memory.").) Dynamics does not appear to dispute the fact that RAM is distinct from persistent storage or that it plays a different role in computing processes. (*See, e.g.*, ECF No. 138-4 ¶ 138 (distinguishing data stored in "flash memory" from transitory variables held in "RAM" during processing).)

Samsung raises two objections to this construction of '153 Patent, both of which are well-founded. First, Samsung's interpretation of Claim 5 is the best interpretation of the ordinary meaning of "retrieved from a memory" in the context of the '153 Patent. At the claim construction phase, the parties disputed whether the plain meaning of that phrase was clear, or whether (as Samsung argued) it would benefit from further clarification. The Court ultimately rejected Samsung's proposed language, but sided definitively with Samsung's substantive argument that the use of "retrieve" in this context necessarily implies "obtain[ing] something that is already created from memory . . . rather than something that must be generated at the time of retrieval." *Dynamics*, 2023 WL 5702503, at *6. The Court further clarified that this means the obtained information must have been "stored" in memory prior to retrieval. *Id.* While the claim

language does not specify whether "a memory" refers to persistent or transient storage, "memory" is ordinarily used in conjunction with "retrieve" to refer to the former rather than the latter. And because "runtime source code variables . . . are temporary variables that are created and only exist during an MST transaction, . . . [t]hey are therefore not 'stored'" (Def. Reply SOF ¶ 132), as the claim language requires.

Put differently, a POSITA would not describe the utilization of data structures in RAM to enable data processing as the "retrieval" of data from memory. As Samsung's expert, Dr. Apsel, explains, "under the plain and ordinary meaning of 'retrieve' to a POSITA, retrieving from memory refers to retrieval of data stored in persistent storage like a hard drive or a flash memory, not the transient runtime variables and working memory that any device would need to utilize" to perform any data processing task. (Apsel Rep. ¶ 88.) In addition, because "[a]ll computing devices use random access memory [("RAM")] to manipulate data during processing" (*id.*), allowing such processing to constitute retrieval from memory would negate that claim term's limiting function altogether. Dynamics submits no testimony by its own expert, Dr. Zatkovich, or any other evidence supporting a different construction of the word "retrieve" in this context.

Second, Dynamics effectively conceded this argument during Inter-Partes Review ("IPR") proceedings before the PTAB and the Federal Circuit. Where, as here, "a patent holder 'has unequivocally disavowed a certain meaning to obtain his patent' or to shield it from IPR, 'the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.'" *Rovi Guides, Inc. v. Comcast Corp.*, 410 F. Supp. 3d 628, 646-47 (S.D.N.Y. 2019) (quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003)). The doctrine promotes public notice, protects the public's reliance on prosecution proceedings, facilitates competitors' reliance on those proceedings when innovating

or commercializing their own products, and points courts toward the best "evidence of how . . . the inventor understood the patent." *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359-60 (Fed. Cir. 2017) (quotation marks omitted). "[W]hen the patentee unequivocally and unambiguously disavows a certain meaning to obtain a patent, the doctrine of prosecution history disclaimer narrows the meaning of the claim consistent with the scope of the claim surrendered." *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013). "Such disclaimer can occur through amendment or argument," and applies to statements made in IPR proceedings. *Aylus Networks*, 856 F.3d at 1359-60.

In order to distinguish prior art (i.e, Shoemaker Patent, U.S. Patent No. 7,690,580, (filed November 17, 2006)), Dynamics argued in IPR proceedings that "[r]ather than store any tracks in memory, Shoemaker instead stores various, discrete sets of data that it then utilizes to build each track as the track is called for." (ECF No. 128-7 ("Pl. IPR Resp.") at 3; *see also id.* at 6 ("Rather than store any tracks in memory, Shoemaker stores various, discrete sets of data that it then compiles into a track.").) Dynamics claimed that Shoemaker teaches constructing complete tracks for transmission, but not storing those tracks prior to the start of a purchase transaction. (*See id.* at 9 (explaining that "magnetic stripe data" is not stored but rather "compiled into a single track at the start of a purchase transaction").) Although Dynamics's expert in this case testified that he was unable to interpret the phrase "on-the-fly generation" and had never used it "in the context of this patent" (Zatkovich Dep. at 26:17-27:3), Dynamics argued in its IPR papers that the Shoemaker Patent was distinct because discrete pieces of data "are compiled into a track 'on the fly' when a transaction begins." (Pl. IPR Resp. at 10). Dynamics emphasized the importance of Shoemaker's tracks being "reconfigurable from transaction to transaction" rather than "statically implemented." (*Id.* at 11.)

Dynamics's sur-reply before the PTAB provides further clarity. According to Dynamics, Shoemaker's tracks are "not merely retrieved *verbatim* from memory," but are "built at the time of transaction." (ECF No. 128-8 at 3 (emphasis added).) Importantly, Dynamics conceded that, per Shoemaker, "when data is to be sent to a card reader," it is "constructed, then encrypted, *then stored as a single representation in a . . . buffer*, and then sent to a card reader." (*Id.*; *see also* Apsel Rep. ¶ 89.)[8] The PTAB accepted the factual basis of this argument in its decision affirming the '153 Patent's validity, "find[ing] that Shoemaker's business profiles are not complete tracks of data, but are separate and distinct data sets that are compiled into a single track at the start of a purchase transaction." (ECF No. 128-5 ("PTAB Decision") at 47.) Dynamics then approvingly cited the PTAB's language to the Federal Circuit. (*See* ECF No. 128-11 at 4.)

Dynamics makes several attempts to distinguish this record, none of which is persuasive. First, Dynamics recharacterizes its arguments as about Claim 1 ("a plurality of digital representations") rather than Claim 5 ("retrieved from a memory"). Specifically, Dynamics claims that it intended to "distinguish[] the asserted claims from Shoemaker because Dynamics

[8] A buffer is a "reserved segment of memory (RAM) within a program that is used to hold the data being processed." *buffer*, PC Mag Encyclopedia, https://www.pcmag.com/encyclopedia/term/buffer (last accessed March 21, 2025); *see also buffer*, A Dictionary of Computer Science, Oxford University Press (7th ed. 2016), https://www.oxfordreference.com/display/10.1093/acref/9780199688975.001.0001/acref-9780199688975-e-531 ("A temporary memory for data, normally used to accommodate the difference in the rate at which two devices can handle data during a transfer."); *buffer*, Free On-Line Dictionary of Computing, foldoc.org/buffer (last accessed March 21, 2025) ("An area of memory used for storing messages. . . . Buffers are used to decouple processes so that the reader and writer may operate at different speeds or on different sized blocks of data."); Robert W. Taylor, *buffer*, Encyclopedia of Computer Science (Jan. 1, 2003), https://dl.acm.org/doi/abs/10.5555/1074100.1074180 ("A buffer is an area of storage that temporarily holds data that will be subsequently delivered to a processor or input-output (I/O) peripheral.").

stores track data in both a forward . . . and a reverse digital representation while Shoemaker generates a track on the fly in the direction sensed by the sensor." (Opp. at 13.) But Dynamics distinguished Shoemaker on two distinct bases. Dynamics first argued that the '153 Patent was distinct from Shoemaker because "Shoemaker teaches away from storing track data . . . because . . . a fixed pattern that is designed to be reused from transaction to transaction[] can be easily stored and then cloned," posing security risks. (*See* PTAB Decision (quoting Dynamics's submission); *see also* Pl. IPR Resp. at 3.) Dynamics then also made an independent argument about directionality and Shoemaker's lack of a "plurality" of representations. (Pl. IPR Resp.at 3.)[9] As the Federal Circuit has made clear, a patent's prosecution history "consists of the entire record of proceedings in the Patent and Trademark Office," including "all express representations made by or on behalf of the applicant." *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985). Arguments made before the PTAB are no different than formal claim amendments for purposes of prosecution disclaimer. *See Papyrus Tech. Corp. v. N.Y. Stock Exch., Inc.*, 581 F. Supp. 2d 502, 522 (S.D.N.Y. 2008), *aff'd sub nom.*, 396 F. App'x 702 (Fed. Cir. 2010). And "[i]t does not matter whether the examiner or the [PTAB] adopted a certain argument . . . ; the sole question is whether the argument was made." *Greenliant Sys., Inc. v. Xicor LLC*, 692 F.3d 1261, 1271 (Fed. Cir. 2012); *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003) (same). Thus, regardless of whether Dynamics's

[9] Dynamics cannot persuasively argue that it made the first argument merely to bolster the second. Whether or not Shoemaker teaches storing any tracks in *persistent* storage has no bearing on whether it teaches holding multiple tracks (rather than just one) in RAM. In fact, Dynamics's entire infringement argument against Samsung is based on the notion that Samsung's products operate in precisely this manner—storing no tracks persistently but creating both forward and reverse representations of tracks and assigning them to data structures in RAM between transaction initiation and transmission. (*See* Opp. at 13-16.) By making both arguments about Shoemaker, Dynamics was trying to distinguish the '153 Patent on two independent grounds. It is bound by both representations now.

statements about memory storage were its sole or most important basis for distinguishing Shoemaker, those statements are still binding on it here.

Second, Dynamics argues that Samsung's products operate differently from Shoemaker, suggesting that this is why Samsung failed to argue that its products "practiced the prior." (Opp. at 14.) But this is irrelevant; prosecution history estoppel is a concept that "promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution." *Omega Eng'g*, 334 F.3d at 1324. There is no rule that it can be raised only by parties claiming to practice the previously distinguished prior art. In addition, the fact that Samsung does not literally (in all aspects) practice the Shoemaker Patent does not preclude Samsung's products and Shoemaker from operating similarly in certain, limited ways. Here, unlike the '153 Patent, Samsung and Shoemaker (according to Dynamics's representations) do not store complete tracks in memory, and instead construct such tracks in RAM once a transaction is initiated.

Third, Dynamics argues that Shoemaker teaches never storing *any* tracks of payment data in memory at all, unlike Samsung's products. (*See* Pl. Reply at 12.) But this is a misrepresentation of Dynamics's arguments before the PTAB. Rather, as explained above, Shoemaker does teach storing tracks of payment data in RAM once they have been constructed and formatted for transmission to a payment reader. (*See* Pl. IPR Reply at 3; PTAB Decision at 47.) Dynamics did not claim, nor does the Court see how it could claim, that Shoemaker teaches storing only subparts of track data in working memory, sending each one to the payment reader, and then deleting it before loading the next slice of data into working memory. To the contrary, Dynamics and the PTAB both made clear that Shoemaker does construct and store one complete track, in either the forward or reverse direction, prior to transmission. (*See* Pl. IPR Reply at 3;

PTAB Decision at 47.) This contrasts with the specifications of the '153 Patent, which encompass at least the storage of tracks in persistent memory. (*See* Apsel Rep. ¶ 88.)

Having resolved that the ordinary meaning of "retrieved from a memory" requires persistent storage, the only other question is whether Dynamics raises a triable issue of fact as to whether Samsung's products persistently store payment tracks. Dynamics has not done so. Rather, Dynamics identifies only locations in Samsung's source code where such tracks are allegedly stored in temporary variables during runtime processing and transmission to a payment reader. (*See* ECF No. 138-3 at 27-38.) Nowhere does Dynamics provide evidence that Samsung's products persistently store complete tracks of payment data—much less a plurality of such tracks—outside of the processing of a given transaction. *See supra* Section I.A.

Accordingly, because the '153 Patent requires that payment tracks be "stored" and then "retrieved" from memory, and because none of Samsung's products operate in this fashion, Dynamics's infringement claim fails. Because Dynamics has failed to raise a triable case as to infringement, the Court need not reach the remainder of the parties' arguments, including those concerning validity and damages.

IV. Conclusion

For the foregoing reasons, Samsung's motion for summary judgment of non-infringement is GRANTED and Dynamics' motion for summary judgment of infringement is DENIED. The motions are denied as moot in all other respects.

The Clerk of Court is directed to terminate the motions at Docket Numbers 122 and 166, enter judgment for Defendants, and close this case.

SO ORDERED.

Dated: March 31, 2025
New York, New York

J. PAUL OETKEN
United States District Judge