IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

MEMORY INTEGRITY, LLC, Plaintiff, **v.** **INTEL CORPORATION**, Defendant.	Case No. 3:15-cv-00262-SI **OPINION AND ORDER**

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Michael H. Simon, District Judge.

Plaintiff Memory Integrity, LLC ("Memory Integrity" or "MI") brings suit against Defendant Intel Corporation ("Intel") for infringement of five patents of which Memory Integrity is the assignee: U.S. Patent Nos. 7,296,121 (the "'121 patent"), 7,103,636 (the "'636 patent"), 7,107,409 (the "'409 patent"), 8,572, 206 (the "'206 patent"), and 8,898,254 (the "'254 patent").

The patents in suit concern algorithms and implementing mechanisms that allow for cache coherency[1] in multiprocessor computer systems.

Memory Integrity alleges that Intel has infringed each patent directly, contributorily, and by inducement. Intel previously moved for judgment on the pleadings against Memory Integrity's claims for contributory and induced infringement. The Court granted Intel's motion in part, dismissing Memory Integrity's claims for induced infringement without prejudice and with leave to replead. Memory Integrity amended its complaint, and Intel again moves for judgment on the pleadings against Memory Integrity's claims for induced infringement. Oral argument on Intel's motion took place on November 10, 2015. For the reasons below, the Court grants Intel's motion, and Memory Integrity's induced infringement claims in the second amended complaint ("SAC") are dismissed with prejudice.

STANDARDS

A Rule 12(c) "motion for judgment on the pleadings faces the same test as a motion under Rule 12(b)(6)." *McGlinchy v. Shell Chem. Co.*, 845 F.2d 802, 810 (9th Cir. 1988). Dismissal for failure to state a claim under Rule 12(b)(6) "is proper if there is a 'lack of a cognizable legal theory or the absence of sufficient facts alleged under a cognizable legal theory.'" *Conservation Force v. Salazar*, 646 F.3d 1240, 1242 (9th Cir. 2011) (quoting *Balistreri v. Pacifica Police Dep't*, 901 F.2d 696, 699 (9th Cir.1988)). In addition, "to survive a motion to dismiss, a complaint must contain sufficient factual matter to state a facially plausible

[1] Cache coherence issues arise in multiprocessor systems where each individual processor has a small, local memory called a cache and the system has a shared main memory. Each local cache stores data upon which the processor is currently operating to optimize access to that data. The data is then saved back to the main memory after operations conclude. Two or more processors operating on the same data may write different values into the cached copies of the data, in which case the system may be unable to determine which version to save to the shared memory. Cache coherence mechanisms address this problem. *See Computer Cache Coherency Corp. v. Via Techs., Inc.*, 2008 WL 4369770, at *2 (N.D. Cal. Sept. 23, 2008).

claim to relief." *Shroyer v. New Cingular Wireless Servs., Inc.*, 622 F.3d 1035, 1041 (9th Cir. 2010) (citing *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009)); *see also Cafasso, U.S. ex rel. v. Gen. Dynamics C4 Sys., Inc.*, 637 F.3d 1047, 1054 n.4 (9th Cir. 2011) (*Iqbal* standard applies to review of Rule 12(c) motions).

In evaluating the sufficiency of a pleading's factual allegations, the court must draw all reasonable inferences in favor of the non-moving party and accept all well-pleaded material facts as true. *Wilson v. Hewlett-Packard Co.*, 668 F.3d 1136, 1140 (9th Cir. 2012); *Daniels-Hall v. Nat'l Educ. Ass'n*, 629 F.3d 992, 998 (9th Cir. 2010). That presumption of truth, however, does not extend to legal conclusions couched as factual allegations. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). The plaintiff "may not simply recite the elements of a cause of action, but must [provide] sufficient allegations of underlying facts to give fair notice and to enable the opposing party to defend itself effectively." *Starr v. Baca*, 652 F.3d 1202, 1216 (9th Cir. 2011). Furthermore, the underlying factual allegations must "*plausibly* suggest an entitlement to relief." *Id.* (emphasis added). A claim will plausibly suggest entitlement to relief "when the pleaded factual content allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Iqbal*, 556 U.S. at 663 (citing *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 556 (2007)). The U.S. Supreme Court emphasizes: "Determining whether a complaint states a plausible claim for relief [is] a context-specific task that requires the reviewing court to draw on its judicial experience and common sense." *Id.* at 679.

In considering a motion for judgment on the pleadings, a court may consider "documents attached to the complaint, documents incorporated by reference in the complaint, or matters of judicial notice—without converting the motion . . . into a motion for summary judgment." *United States v. Ritchie*, 342 F.3d 903, 908 (9th Cir. 2003); *see Heliotrope Gen., Inc. v. Ford Motor Co.*,

189 F.3d 971, 981 n.18 (9th Cir. 1999). A court may also consider documents on which the complaint necessarily relies if the parties do not dispute the authenticity of the documents. *See Lee v. City of L.A.*, 250 F.3d 668, 688 (9th Cir. 2001).

BACKGROUND

A. The '121 Patent

The '121 patent, entitled "Reducing Probe Traffic in Multiprocessor Systems," details a "probe filtering unit" that "receive[s] probes corresponding to memory lines from the processing nodes" and evaluates the probes "to determine whether a valid copy of the memory line is in any of the cache memories." Dkt. 105-1 at 2, 29. The filtering unit "transmit[s] the probes only to selected ones of the processing nodes with reference to probe filtering information." *Id.* at 29.

Memory Integrity asserts that Intel actively induces customers to directly infringe the '121 patent by providing "product manuals, data sheets, presentations, instructions, and other materials that describe, promote, and encourage use of the core valid bits . . . to reduce the number of processor cores that need to be snooped." Dkt. 105 ¶ 22. In support of its assertion, Memory Integrity cites a multi-volume datasheet for an Intel Xeon Processor, a presentation entitled "Concurrency in Computer Architectures: Implications for Parallel Software Development," and another presentation entitled "Using Intel VTune Amplifier XE to Tune Software on the 4th Generation Intel Core Processor Family."

Memory Integrity provides the following quotations from Intel's documents as evidence that the documents encourage use of the allegedly infringing technology:

- For any given cache line, the LLC implements core valid bits to track which local core(s) have cached the line in their MLC. Core valid bits are also used by LLC to determine which local core(s) are needed to be snooped during responding to snoop request. *Id.* ¶ 23.

- Snoop only needed if line is in L3 and core valid bit is set. . . . Core valid bits limit unnecessary snoops [and] . . . [o]nly need to check the core whose core valid bit is set. *Id.* ¶ 24.

- The L3 cache has a set of 'core valid' bits that indicate whether each cacheline could be found in any L2 caches on the same socket, and if so, which ones. The first time a line is brought into the L3 cache, it will have core valid bits set to 1 for whichever L2 cache it went into. If that line is then read by a different core, then it will be fetched from L3, where the core valid bits will indicate it is present in one other core. The other L2 will have to be snooped, resulting in a longer latency access for that line. This metric measures the impact of that additional access time, when the cacheline in question is only being read-shared. In the case of read-sharing, the line can co-exist in multiple L2 caches in shared state, and for future accesses more than one core valid bit will be set. Then when other cores request the line, no L2 caches will need to be snooped, because the presence of 2 or more core valid bits tells the LLC that the line is shared (for reading) and ok to serve. Thus the impact of this only happens the first time a cacheline is requested for reading by a second L2 after it has already been placed in the L3 cache. *Id.* ¶ 25.

B. The '636 Patent

The '636 patent, entitled "Methods and Apparatus for Speculative Probing of a Remote Cluster," details a "mechanism for sending probes to nodes associated with cache blocks before a request associated with the probes is received at a serialization point." Dkt. 105-2 at 2, 21. The mechanism probes a remote processor cluster from either a request cluster or a home cluster. *Id.* at 21.

Memory Integrity asserts that Intel actively induces customers to directly infringe the '636 patent by providing "product manuals, data sheets, presentations, instructions, and other materials that describe, promote, and encourage use of two or more [processors] in combination to speculatively probe a remote cluster, such as by performing a source snooping operation." Dkt. 105 ¶ 34. In support of its assertion, Memory Integrity cites an Intel article entitled "The Feeding of High-Performance Processor Cores—Quick Interconnects and the New I/O Hubs." Memory Integrity also cites two Intel technical product specifications and two Intel Xeon Processor datasheets.

Memory Integrity provides the following quotations from Intel's documents as evidence that the documents encourage use of the allegedly infringing technology:

- Cache coherence snooping can be initiated by the caching agents that request data. This mechanism, called source snooping, is best suited to small systems that require the lowest latency to access the data in system memory. . . . High-performance, small-scale systems, such as workstations and computationally intensive desktop machines, tend to benefit from the low latency and high efficiency of the source snoop cache coherence mechanism. This variant of the snooping mechanism is designed to provide data to the processors with the lowest latency possible, as it requires the fewest number of hops across the links. A source snooping approach also takes advantage of the low latency of cache accesses to emphasize forwarding data from one processor to another, rather than getting the data from slower DRAM memory systems. This approach reduces latency by about 25% over comparably sized home snooped systems, producing a significant performance benefit. *Id.* ¶ 35.

- [Intel Server Board S2600CP Family/Intel Server System P4000CP Family] supports both low-latency source snooping and a scalable home snoop behavior. The coherency protocol provides for direct cache-to-cache transfers for optimal latency. *Id.* ¶ 36.

- [Intel Xeon Processor E5-1600/E5-2600/E5-4600 v2 Product Family] supports both low-latency source snooping and a scalable home snoop behavior. The coherency protocol provides for direct cache-to-cache transfers for optimal latency. *Id.* ¶ 37.

- In the snoopy variant of the protocol, each caching agent broadcasts snoop messages for each request to each peer snoopy caching agent. The peer agents send snoop responses to the home agent targeted by the original request. The home agent resolves the final data return, based on the snoop responses and the data fetched by the memory controller associated with the home agent. The source snoopy variant is also called as the two-hop protocol, as the snoop processing is performed in the shadow of memory/directory lookup. *Id.* ¶ 38.

- The server board includes two Socket-R (LGA2011) processor sockets and can support up to two processors from Intel Xeon processor E5-2600 and E5-2600 v2 product family. *Id.* ¶ 39 [Memory Integrity asserts that this material supports use of accused processors in combination.].

C. The '409 Patent

The '409 patent, entitled "Methods and Apparatus for Speculative Probing at a Request Cluster," details the same mechanism as the '636 patent. Dkt. 105-3 at 2, 18. The '409 patent, however, involves "local probing" of a cluster of processors. *Id.* at 18.

Memory Integrity asserts that Intel actively induces customers to directly infringe the '409 patent by providing "product manuals, data sheets, presentations, instructions, and other materials that describe, promote, and encourage use of two or more [processors] in combination to snoop one or more local cores before sending the request to the appropriate home agent, such as by use of a Read-for-Ownership ('RFO') operation." Dkt. 105 ¶ 48. In support of its assertion, Memory Integrity cites an Intel performance analysis guide, two Intel reference manuals, and two Intel product specifications.

Memory Integrity provides the following quotations from Intel's documents as evidence that the documents encourage use of the allegedly infringing technology:

- [I]f the CBo fielding the core request indicates that a core within the socket owns the line (for a coherent read), the request is snooped to that local core. That same CBo will then snoop all peers which might have the address cached (other cores, remote sockets, etc) and send the request to the appropriate Home Agent for conflict checking, memory requests and writebacks. . . . [T]he CBo has performance monitoring events for tracking MESI state transitions that occur as a result of data sharing across sockets in a multi-socket system. *Id.* ¶ 49.

- The memory cluster of the Intel Core microarchitecture uses the following to speed up memory operations: . . . pipelined read-for-ownership operation (RFO). . . . In the Intel Xeon Processor E5 Family, . . . the uncore subsystem contains more components, including an LLC with larger capacity and snooping capabilities to support multiple processors. . . . When a write to a write-combining buffer for a previously-unwritten cache line occurs, there will be a read-for-ownership (RFO). If a subsequent write happens to another write-combining buffer, a separate RFO may be caused for that cache line. Subsequent writes to the first cache line and write-combining buffer will be delayed until the second RFO has been serviced to guarantee properly ordered visibility of the writes. *Id.* ¶ 50.

- A cacheline can be put in an Exclusive state (E) in response to a 'read for ownership' (RFO) in order to store a value. All instructions containing a lock prefix will result in a (RFO) since they always result in a write to the cache line. *Id.* ¶ 51.

- The Intel Xeon processor employs a use-once protocol to ensure that a processor in a multiprocessor system may access data that is loaded into its cache on a Read-for-Ownership (RFO) operation at least once before it is snooped out by another processor. This protocol is necessary to avoid a dual processor livelock scenario where no processor

in the system can gain ownership of a line and modify it before that data is snooped out by another processor. *Id.* ¶ 52.

- *See supra* text from Dkt. 105 ¶ 39.

D. The ’206 Patent

The ’206 patent, entitled “Transaction Processing Using Multiple Protocol Engines,” details “[a] multi-processor computer system . . . in which transaction processing in each cluster of processors is distributed among multiple protocol engines.” Dkt. 105-4 at 2. The protocol engines “include[] at least one remote protocol engine for processing transactions targeting remote memory and at least one local protocol engine for processing transactions targeting local memory.” *Id.* at 24.

Memory Integrity asserts that Intel actively induces customers to directly infringe the ’206 patent by providing “product manuals, data sheets, presentations, instructions, and other materials that describe, promote, and encourage use of two or more [processors] in combination, with each processor containing multiple instances of the C-Box (also referred to as a ‘Cache Box’) to process memory transactions via a proprietary hashing algorithm.” Dkt. 105 ¶ 62. In support of its assertion, Memory Integrity cites two Intel product manuals, a multi-volume datasheet for an Intel Xeon Processor, an Intel performance monitoring guide, a reference manual for Intel Xeon Processors, and an Intel product specification.

Memory Integrity provides the following quotations from Intel’s documents as evidence that the documents encourage use of the allegedly infringing technology:

- The Intel Xeon Processor 7500 Series contains eight instances of the C-Box, each assigned to manage a distinct 3MB, 24-way set associative slice of the processor’s total LLC capacity. . . . Every physical memory address in the system is uniquely associated with a single C-Box instance via a proprietary hashing algorithm that is designed to keep the distribution of traffic across the C-Box instances relatively uniform for a wide range of possible address patterns. This enables the individual C-Box instances to operate independently, each managing its slice of the physical address space without any C-Box

in a given socket ever needing to communicate with the other C-Boxes in that same socket. *Id.* ¶ 63.

- The LLC consists of multiple cache slices. The number of slices is equal to the number of IA cores. Each slice has logic portion and data array portion. The logic portion handles data coherency, memory ordering, access to the data array portion, LLC misses and writeback to memory, and more. The data array portion stores cache lines. Each slice contains a full cache port that can supply 32 bytes/cycle. The physical addresses of data kept in the LLC data arrays are distributed among the cache slices by a hash function, such that addresses are uniformly distributed. . . . In the Intel Xeon Processor E5 Family, . . . the uncore subsystem contains more components, including an LLC with larger capacity and snooping capabilities to support multiple processors. . . . *Id.* ¶ 64.

- The Intel® Xeon® E7 v2 processor supports scalable server and HPC platforms of two or more processors, including 'glueless' 8-way platforms . . . . The processor last level cache comprises a 2.5 MB section for each core slice instantiated but together they represent one logical cache . . . . The Coherent requests are serviced by the Cbo that holds the LLC slice for the specified address, determined by the hashing function. *Id.* ¶ 65.

- The uncore contains eight instances of the CBo, each assigned to manage a distint [sic] 2.5MB slice of the processor's total LLC capacity. . . . Every physical memory address in the system is uniquely associated with a single CBo instance via a proprietary hashing algorithm that is designed to keep the distribution of traffic across the CBo instances relatively uniform for a wide range of possible address patterns. This enables the individual CBo instances to operate independently, each managing its slice of the physical address space without any CBo in a given socket ever needing to communicate with the other CBos in that same socket. . . . [T]he C-Box has performance monitoring events for tracking MESI state transitions that occur as a result of data sharing across sockets in a multi-socket system. *Id.* ¶ 66 [Memory Integrity also includes another quotation almost identical to this quotation but regarding "the uncore of Intel Xeon Processors based on the Ivy Bridge-EP microarchitecture," which "contains multiple instances of the CBo." *Id.* ¶ 67].

- *See supra* text from Dkt. 105 ¶ 39.

E. The '254 Patent

The '254 patent, also entitled "Transaction Processing Using Multiple Protocol Engines," is similar to the'206 patent. The '254 patent details a multi-processor computer system with separate protocol engines for processing local and remote memory transactions. Dkt. 105-5 at 2, 21.

Memory Integrity asserts that Intel actively induces customers to directly infringe the '254 patent by providing "product manuals, data sheets, presentations, instructions, and other materials that describe, promote, and encourage use of [processors] with each processor containing multiple instances of the C-Box (also referred to as a 'Cache Box') to process memory transactions via a proprietary hashing algorithm." Dkt. 105 ¶ 77. In support of its assertion, Memory Integrity cites an Intel programming guide, two Intel reference manuals, a multivolume datasheet for an Intel Xeon Processor, and an Intel performance monitoring guide.

To show that Intel's documents encourage use of technology that infringes the '254 patent, Memory Integrity essentially provides the same quotations as those that it provides for the '206 patent. *See supra* text from Dkt. 105 ¶¶ 63-66.[2]

DISCUSSION

The patent laws provide that "[w]hoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). "[A]ctive" inducement has three elements: *knowledge* of the patent; *knowledge* that the induced acts will infringe; and "*intent* to 'bring about the desired result,' which is infringement." *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1928 (2015) (quoting *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2065 (2011)) (emphasis added); *see also Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 904 (Fed. Cir. 2014) ("Absent the knowledge and affirmative act of encouragement, no party could be charged with inducement.").

[2] In oral argument, Memory Integrity emphasized that the '121 and '254 patents cover a single processor by itself, whereas the '636, '409, and '206 patents cover a combination of two or more processors connected to each other. The SAC contains allegations that Intel induces its customers to directly infringe the '636 and '409 patents by selling accused instrumentalities that "are designed to be combined together." Dkt. 105 ¶¶ 40, 54. The SAC does not contain similar allegations for the '121, '254, or '206 patents.

As discussed in the Court's previous opinion (Dkt. 98), each requirement is separate and distinct.[3] Intel does not contest the first requirement, that Intel had knowledge of Memory Integrity's patents. While not admitting the second requirement of knowledge that the induced acts would infringe, Intel devotes little discussion to directly contesting this requirement. Intel does, however, vigorously contest the final requirement of active inducement: specific intent.

A. Requirements for Specific Intent

Specific intent to encourage infringement "can be shown by circumstantial evidence, but the mere knowledge of possible infringement will not suffice." *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1328 (Fed. Cir. 2009). Thus, that a product may be used in an infringing manner is not sufficient to establish intent. *Id.* at 1328-29. Nor is actual knowledge that some users of the product may be infringing the patent. *Id.* at 1329. Similarly, "ordinary acts incident to product distribution, such as offering customers technical support or product updates," will not support inducement liability in themselves. *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 937 (2005). On the other hand, instructions that "teach an infringing use" of the product may be sufficient to infer "an affirmative intent to infringe the patent." *Vita-Mix Corp.*, 581 F.3d at 1329 n.2; *see also Metro-Goldwyn-Maye Studios*, 545 U.S. at 936 ("Evidence of

[3] In oral argument, Memory Integrity argued that the knowledge and specific intent requirements are not distinct. According to Memory Integrity, "specific intent" is simply another way to refer to the requirement that the accused infringer know that the induced acts constitute patent infringement. The Federal Circuit has, however, repeatedly discussed knowledge and specific intent as separate elements. *See In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1339 (Fed. Cir. 2012) ("To survive [defendants'] motion to dismiss, therefore, [plaintiff's] amended complaints must contain facts plausibly showing that [defendants] *specifically intended* their customers to infringe the [asserted] patent *and knew that the customer's acts constituted infringement*.") (emphasis added); *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) ("[T]he intent requirement for inducement requires more than just intent to cause the acts that produce direct infringement. *Beyond that threshold knowledge, the inducer must have an affirmative intent* to cause direct infringement.") (emphasis added).

'active steps . . . taken to encourage direct infringement,' . . . such as advertising an infringing use or instructing how to engage in an infringing use, show an affirmative intent that the product be used to infringe. . . .") (citation omitted); *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1365 (Fed. Cir. 2012) (noting that in order to be liable for induced infringement, the defendant must "go beyond describing the infringing mode" and "recommend[] that customers use the infringing mode"). What the patentee must allege is "culpable conduct, directed to encouraging another's infringement." *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006).

The specific intent element of induced infringement differentiates inducement liability from liability for both direct infringement and contributory infringement. In contrast to a claim of direct infringement, contributory and induced infringement claims require a showing of scienter. *Id.* at 1305. The knowledge required for contributory liability is similar to the knowledge required for inducement liability. *See Global-Tech*, 131 S. Ct. at 2067. Unlike induced infringement, however, contributory infringement does not have a specific-intent element. *Unisone Strategic IP, Inc. v. Life Techs. Corp.*, 2013 WL 5729487, at *4 (S.D. Cal. Oct. 22, 2013). Contributory infringement instead contains a no-substantial-noninfringing-use element that is absent from the requirements of induced infringement. *See Ricoh Co. v. Quanta Computer Inc.*, 550 F.3d 1325, 1340 (Fed. Cir. 2008).

B. Inferences of Specific Intent

Memory Integrity cites *Bill of Lading* in support of the argument that general statements in advertisements about the benefits of using a product establish an inference of specific intent to infringe. *See In re Bill of Lading Transmission and Processing Sys.Patent Litig.*, 681 F.3d 1323, 1344 (Fed. Cir. 2012). In *Bill of Lading*, the Federal Circuit noted that general statements about a product's benefits could allow a court to infer specific intent to induce infringement "[w]hen viewed in the context of the invention." *Id.* In that case, the patent in suit disclosed a method that

"improves asset utilization and efficiency" through in-cab scanning of bills of lading while trucks are en route. *Id.* at 1341. The documents cited by the plaintiff in support of its claim of induced infringement specifically advertised that the allegedly infringing product could be used "to perform in-cab scanning of critical proof of delivery (POD) and other driver documents" and that "mobile in-cab scanning . . . 'reduce[s] costs and improve[s] efficiencies.'" *Id.* at 1341-42. The Federal Circuit found these advertisements sufficient to give rise to a reasonable inference of specific intent because the advertisements specifically "tout[ed] the ability of [the allegedly infringing] products" to perform the same functions as disclosed in the asserted patent. *Id.* at 1341-43.

Memory Integrity also cites *Tranxition*, a case from this district, as standing for the proposition that identifying advertising and instructions regarding allegedly infringing technology is legally adequate to plead specific intent. *Tranxition, Inc. v. Novell, Inc.*, 2013 WL 2318846, at *5 (D. Or. May 27, 2013). In *Tranxition*, the plaintiff asserted a patent entitled "Method and System for Automatically Transitioning [o]f Configuration Settings Among Computer Systems." *Id.* at *1 (brackets in original). The patent concerned methods for "migrating a computer 'personality' (*i.e.*, the custom settings, files, etc. that users set on their computer) to another computer." *Id.* The defendant marketed software entitled "ZENWorks Personality Migration (or Migration Assistant)." *Id.* The defendant advertised its software as a "comprehensive solution for migration, replacement, and recovery of operating system settings, application settings, and data files, collectively known as DNA." *See id.* at *5 n.2.[4] Based on

[4] The website referenced in footnote two of the *Tranxition* opinion appears at the following web address using the Internet Archive WayBack Machine: https://web.archive.org /web/20070120031501/http://www.novell.com/documentation /zenworks7/readme /readme_pm_7.html.

these allegations, the court found that the plaintiff had pled sufficient facts to give rise to a reasonable inference that the defendant specifically intended to induce infringement. *Id.* at *5.

Where defendants have not touted the benefits of the accused products in ways that track the asserted patents, courts generally do not infer specific intent. The court in *Unisone Strategic IP*, for example, concluded that allegations that "merely indicate that Defendant provides instruction, technical support, and training for using its own software" do not allow a court to "infer that Defendant had the specific intent to induce others to infringe." 2013 WL 5729487, at *3; *see also Avocet Sports Tech., Inc. v. Garmin Int'l, Inc.*, 2012 WL 2343163, at *4 (N.D. Cal. June 5, 2012) (holding that allegations that the defendant "provided other parties with 'instruction' and 'training' in the use of [the defendant's] own products" did not constitute evidence of specific intent to encourage others to infringe).

Conversely, the court in *Enthone* inferred specific intent where the defendant "facilitated and supported [its] customers' infringing uses" by providing instructions that led the accused products to have "the specific attributes described and claimed in [the patents-in-suit]." *Enthone Inc. v. BASF Corp.*, 2015 WL 5090015, at *4 (N.D.N.Y. Aug. 27, 2015) (internal quotation marks and citation omitted). The court in *Unilin Beheer* inferred specific intent where the defendant instructed its customers "on how to assemble and use the [accused] products." *Unilin Beheer B.V. v. Tropical Flooring*, 2014 WL 2795360, at *5 (C.D. Cal. June 13, 2014). In *Mobile Telecommunications* the court held that "specifically advertising certain functionality and instructing users on how to use a certain functionality" supported an induced infringement claim. *Mobile Telecomms. Techs., LLC v. Amazon.com, Inc.*, 2014 WL 10418271, at *1 (E.D. Tex. Aug. 26, 2014). Where the defendant provided instructions on how to perform a patented method and trained employees to assist customers in performing the patented method, the *Nomadix* court

also found that the plaintiff had pled sufficient facts to establish specific intent. *Nomadix, Inc. v. Hospitality Core Servs. LLC*, 2015 WL 1525537, at *3 (C.D. Cal. Apr. 3, 2015).

Some courts have found that merely continuing to sell an allegedly infringing product after acquiring knowledge of a patent's existence gives rise to an inference of specific intent at the pleading stage. *See, e.g.*, *Paone v. Broadcom Corp.*, 2015 WL 4988279, at *13 (E.D.N.Y. Aug. 19, 2015). These cases are, however, inconsistent with the Federal Circuit's reasoning in *Bill of Lading*. In *Bill of Lading*, the Federal Circuit went far beyond considering whether the defendant continued to sell the allegedly infringing products after acquiring knowledge of the complaint; the court also considered the alleged facts "in the context of the technology disclosed in [the asserted patent] and the industry to which [the defendants] sell and tout their products." 681 F.3d at 1340. As previously discussed, the Federal Circuit also considered the text of the defendant's advertisements and product literature. *Id.* at 1341-43; *see also Johnstech Int'l Corp. v. JF Tech. Berhad*, 2015 WL 2062223, at *2 (N.D. Cal. May 1, 2015) (interpreting *Bill of Lading* as inferring specific intent only "where the defendant advertises or promotes its product for use in an infringing manner"). Although "there is no requirement that the facts alleged mimic the precise language used in a claim," the Federal Circuit has emphasized that "what is necessary is that facts, when considered in their entirety and in context, lead to the common sense conclusion that a patented method is being practiced." *Bill of Lading*, 681 F.3d at 1343.

Conair Corp. v. Jarden Corp., cited by Memory Integrity, does not suggest an alternative understanding of *Bill of Lading*. 2014 WL 3955172, at *3 (S.D.N.Y. Aug. 12, 2014). There, the court considered the context in which an allegedly infringing milk container attachment was sold: "Given that coffee drinkers frequently enjoy milk with their coffee, it would be reasonable to infer that [the defendant] intended and expected its customers to use the milk container

attachment that it allegedly included in the coffee machines that it sold." *Id.* The *Conair Corp.* court did not hold that merely selling an accused product after acquiring knowledge of an asserted patent *per se* establishes specific intent; the court's holding was context-specific. The context of that case was an allegedly infringing product sold alongside a non-infringing product, the latter of which purportedly induced customers to use the former.

Factual Allegations in the SAC

Here, Memory Integrity has added dozens of facts to the SAC. For each claim of induced infringement, Memory Integrity provides several examples of Intel's instructions and technical support. Memory Integrity asserts that these documents describe functionality that could infringe a claim in the relevant patent. These specific facts cure some of the defects of Memory Integrity's first amended complaint by providing factual support rather than conclusory legal statements to show that Intel induced infringement of the patents in suit. Nonetheless, the SAC does not contain facts supporting a reasonable inference that Intel specifically intended its customers to infringe Memory Integrity's patents.

The documents and quotations that Memory Integrity has identified do not so much "teach an infringing use" as identify and describe allegedly infringing functionality. That is, the quotations do not teach how to use Intel's products to infringe Memory Integrity's patents, but simply describe how Intel's products work—and the products appear to work in a way that, according to Memory Integrity, infringes Memory Integrity's patents.

When a product can be used both in an infringing way and a non-infringing way, the allegation that its purveyor specifically *teaches* the infringing use is sufficient factual support for the element of specific intent. *Vita-Mix,* 581 F.3d at 1328. But the mere allegation that "a user following the instructions may end up using the device in an infringing way" is not sufficient factual support. *Id.* at 1329 n.2. If a product works in such a way that every normal use of it is

infringing, that is a sufficient allegation that the product has no substantial noninfringing use—but no substantial noninfringing use is an element of *contributory* infringement. Indeed, that is *the* element of contributory infringement that, by replacing a specific intent to infringe, differentiates contributory from induced infringement.

At this stage of the proceedings, Memory Integrity sufficiently alleges that the accused products have no substantial noninfringing use and that Intel's customers used Intel's products to infringe the patents in suit. Memory Integrity does not, however, sufficiently allege that Intel's documents instruct Intel's customers on how to engage in infringing uses that the customers would not otherwise engage in by simply buying the products. As in *Unisone* and *Avocet*, the factual allegations only establish that Intel described features of the company's own products. The statements offered by Memory Integrity thus evince "ordinary acts incident to product distribution" rather than "purposeful, culpable expression and conduct." *Metro-Goldwyn-Mayer Studios Inc.*, 545 U.S. at 937.). Memory Integrity's factual allegations support its claims of direct and contributory infringement, but the allegations do not state a claim of induced infringement.

To the extent Memory Integrity alleges that Intel induces infringement of method and apparatus patents by selling noninfringing products designed for infringing uses, Memory Integrity has still failed to state an inducement claim. Memory Integrity asserts that some of Intel's products do not infringe on Memory Integrity's patents until Intel's customers use the products in combination. Memory Integrity does not, however, assert that Intel specifically instructs or recommends that customers combine Intel's products. Memory Integrity simply cites one document that states that Intel's server boards could support up to two processors. Much like the allegations found insufficient to support induced infringement in *E-Pass Technologies, Inc. v.*

3Com Corp, Memory Integrity points to product sales alongside documents that do no more than describe the functionality of the products. 473 F.3d 1213, 1221 (Fed. Cir. 2007). "Merely 'describ[ing],' an infringing mode is not the same as 'recommend[ing],' 'encourag[ing],' or 'promot[ing],' an infringing use, or suggesting that an infringing use 'should' be performed," and thus descriptions of such modes fall short of induced infringement. *Takeda Pharm. U.S.A., Inc. v. W.-Ward Pharm. Corp.*, 785 F.3d 625, 631 (Fed. Cir. 2015) (alterations in original) (citations omitted). Additionally, the Federal Circuit has rejected the argument that direct and indirect infringement can be found because a "natural and intuitive way to employ" a product is infringing. *ACCO Brands Inc. v. ABA Locks Mfg.*, 501 F.3d 1307, 1312-13 (Fed. Cir. 2007). Intel's sale of products that customers could use in an infringing manner—without distributing documents or taking other actions that encourage such use—does not support an inference that Intel specifically intended to induce infringement.

The context of Intel's advertisements differentiates them from the advertisements that allowed for inferences of specific intent in *Bill of Lading* and *Tranxition*. The advertised features and benefits of the products in *Bill of Lading* and *Tranxition* closely tracked the claimed features and benefits of the asserted patents. The asserted patent in *Bill of Lading* detailed an in-cab scanner that enabled more efficient route planning and shipment consolidation, and the literature concerning the allegedly infringing products specifically advertised in-cab scanners that enabled more efficient route planning and shipment consolidation. Moreover, in *Bill of Lading*, the defendants failed to identify any other way in which efficiency and improved asset utilization could be achieved other than through the patented method. 681 F.3d at 1341. Similarly, in *Tranxition*, the asserted patent detailed a method for migrating a computer's "personality," and the advertisements for the allegedly infringing technology touted a method for migrating a

computer's "DNA." Intel's product literature, however, does not specifically tout "a probe filtering unit" for "reducing probe traffic," a method or mechanism for "speculative probing," or "transaction processing using multiple protocol engines." The text of Intel's documents contains no facial connection to the wording in the asserted patents. Intel also denies that an industry context exists in which cache coherency and improved processing speed can be achieved through no other methods other than those patented by Memory Integrity. Intel's documents do not give rise to an inference of specific intent in the same way that the *Bill of Lading* and *Tranxition* advertisements did.

Moreover, Memory Integrity does not allege, as did the plaintiff in *Enthone*, that Intel "facilitated and supported [its] customers' infringing uses" by providing instructions that led the accused products "to have 'the specific attributes described and claimed in [the patents-in-suit].'" 2015 WL 5090015, at *4. Nor does Memory Integrity allege facts similar to those in *Unilin Beheer*, *Mobile Telecommunications*, or *Nomadix*. The SAC does not contain factual allegations that Intel instructed its customers on assembling and using the accused products in an infringing manner or that Intel trained its employees to assist customers in performing a patented method.

The facts of this case more closely resemble the facts in *Straight Path* than those of the cases cited by Memory Integrity. *See Straight Path IP Grp., Inc. v. Vonage Holdings Corp.*, 2014 WL 3345618 (D.N.J. July 7, 2014). In *Straight Path*, the court dismissed the plaintiff's inducement claims with leave to amend, and the plaintiff amended its inducement claims with "over 350 additional paragraphs," including multiple specific references to the defendant's website purporting to describe the operation of the accused products. *Id.* at *2; *see* Dkt. 109-2 ¶¶ 38-53. According to the *Straight Path* court, although the plaintiff "alleged that Defendants induced their customers to infringe the Asserted Patents by instructing them how to use the

Accused Products," the plaintiff failed to show "that Defendants *specifically intended* for the induced acts to infringe the Asserted Patents." *Straight Path*, 2014 WL 3345618, at *2 (emphasis in original). The new allegations that Memory Integrity added in its SAC similarly fail to show that Intel intended for its customers to infringe the asserted patents.

As Memory Integrity notes, "circumstantial evidence may suffice" to establish liability for induced infringement. *DSU*, 471 F.3d at 1306 (quoting *Metro-Goldwyn-Mayer*, 545 U.S. at 934). The circumstantial evidence, however, must still be "evidence of culpable conduct, directed to encouraging another's infringement." *Id.* Viewing the allegations in the SAC in the light most favorable to Memory Integrity, the Court finds those allegations do not constitute evidence—even circumstantial evidence—that Intel engaged in "culpable conduct" of specifically intending to promote or encourage infringement of the asserted patents.

CONCLUSION

Intel's Motion for Partial Judgment on the Pleadings (Dkt. 108) is GRANTED. Memory Integrity has had more than a year to conduct discovery directed at uncovering factual support for its claims. Memory Integrity has also amended its complaint twice without curing the deficiencies in its induced infringement claims. Accordingly, the Court finds that leave to amend would be futile. *See DeSoto v. Yellow Freight Sys., Inc.*, 957 F.2d 655, 658 (9th Cir. 1992) ("A district court does not err in denying leave to amend where the amendment would be futile."). Memory Integrity's induced infringement claims are DISMISSED with prejudice.

IT IS SO ORDERED.

DATED this 13th day of November, 2015.

/s/ Michael H. Simon
Michael H. Simon
United States District Judge