UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

NETLIST INC,

Plaintiff,

v.

DIABLO TECHNOLOGIES INC,

Defendant.

Case No. 13-cv-05962-YGR

AMENDED ORDER GRANTING IN PART MOTION FOR PRELIMINARY INJUNCTION

Re: Dkt. No. 202

The parties have filed supplemental filings on the amount of a bond and the propriety of sealing portions of its January 6, 2015 Order (Dkt. Nos. 257, 258, 259, 260, 263, 265, 266), and the briefing in support of and opposition to the motion of third parties SMART Storage Systems, Inc. ("SMART Storage") and SanDisk Corporation ("SanDisk") for Reconsideration (Dkt. No. 261, 262, 269, 270).

The Court has issued a separate order on the motion for reconsideration, and incorporates portions of the analysis herein. The Court finds that no portion of the Order Granting In Part Motion of Netlist for Preliminary Injunction, originally issued under seal on January 6, 2015 (Dkt. No. 251), is appropriately sealed. *See Kamakana v. City & Cnty. of Honolulu*, 447 F.3d 1172, 1178 (9th Cir. 2006) (strong presumption in favor of access). The Court has also identified certain typographical errors in the original order.

In light of all the foregoing, the Court hereby **AMENDS** its Order Granting In Part Motion of Netlist for Preliminary Injunction, originally issued under seal on January 6, 2015 (Dkt. No. 251), as follows:

Plaintiff Netlist Inc. brings this action against Defendant Diablo Technologies, Inc. ("Diablo"), alleging claims for correction of inventorship and ownership, breach of contract and nondisclosure agreement, Lanham Act violations, and trade secret misappropriation. Based on the breach of contract, breach of nondisclosure agreement, and trade secret misappropriation claims, Netlist has filed a Motion for Preliminary Injunction. Netlist seeks an order enjoining Diablo: (1) from any further manufacture, use, sale, or distribution of the Diablo Rush and Bolt chips and any ULLtraDIMM module containing these chips; and (2) requiring the recall of all ULLtraDIMM modules shipped to date.

Having carefully considered the papers submitted and the pleadings in this action, the arguments offered at the hearings on November 20, 2014, and December 19, 2014, and for the reasons set forth below, the Court hereby **GRANTS IN PART** the Motion for Preliminary Injunction. Netlist has established a likelihood of success on the merits of their claims of breach of the Supply Agreement and the Non-Disclosure Agreement between the parties, as well as irreparable harm if the effects of those breaches are permitted to continue. The balance of the equities weighs in favor of granting a preliminary injunction halting the manufacture, use, sale, or distribution of the Diablo Rush and Bolt chips and any ULLtraDIMM module containing those chips, in order to maintain the status quo pending a trial on the merits of the claims. However, Netlist has not met the higher burden associated with a mandatory injunction requiring a recall of modules shipped to date, and the motion is denied to the extent such interim relief is sought. To minimize the impact on the parties, the Court advances the trial date in this matter to March 9, 2015.

I. BACKGROUND

The Court summarizes the evidence presented in connection with the motion and opposition.[1] In 2003, Netlist launched a research and development effort to create a type of

[1] Diablo filed its Objections to Evidence Filed In Support of Netlist's Reply Brief and New Arguments Raised Therein (Dkt. No. 235) on November 18, 2014. Local Rule 7-3(d) permits a party to file an objection to reply evidence, stating objections to new evidence submitted for the first time on reply. However, the documents "may not include further argument on the motion." L.R. 7-3(d)(1). Diablo's Objections do not comply with the rule in that they offer additional argument and fail to identify all the evidence to which Diablo objects, instead identifying "representative instances." The Court rules as follows on the reply evidence submitted:

computer server memory technology, dual in-line memory modules or DIMM, that would increase memory capacity and system performance in servers. (Declaration of Chuck Hong, ¶¶ 16, 18.) At the time, an industry standard had been developed for a Registered DIMM ("RDIMM"), which attached to the computer's memory channel, instead of the slower data storage channel, and included a Standard Register attached to at least one rank of physical dynamic random-access memory (or "DRAM"). (*Id.* at ¶ 8.)

Netlist's developments ultimately resulted in its HyperCloud® memory module which appears to a computer system as a standard RDIMM with two ranks of DRAM memory, but is actually a proprietary Load Reduced DIMM ("LRDIMM") with four ranks of DRAM memory. (Hong Dec., ¶ 20.) By 2008, Netlist had developed the critical technologies for HyperCloud® modules and chipsets. (*Id.*, ¶ 28.) The technologies that enabled the creation of the HyperCloud® module included Netlist's load reduction (referred to as "LRD") and density (or rank) multiplication (referred to as "DxD") technologies and related proprietary chipset architectures which Netlist alleges are its core Trade Secrets. (*Id.*, ¶¶ 21, 22.) Instead of using an industry Standard Register, Netlist's DxD/LRD architecture distributed the data signal and control tasks among a proprietary module controller called the "ASIC" and nine isolation devices, called the "ISwitches." (*Id.*, ¶ 19.) Even though the HyperCloud® module provides higher performance and higher density, it operates in a standard DDR3 RDIMM socket located on a computer's "memory channel" or "memory slot." (*Id.*, ¶ 18.)

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(1) Supplemental Declaration of Chuck Hong (Dkt. 230-8)
Objections to ¶¶ 2-4: Overruled, proper subject of reply.
Objections to ¶¶ 6-13: Overruled as to ¶¶ 7, 8, 10, 11
Sustained as to ¶¶ 9, 12, 13
Objections to ¶¶ 14-21: Sustained as beyond the proper scope of reply
(2) Supplemental Declaration of Hyun Lee (Dkt. No. 230-19)
Objections are overruled; proper subject for rebuttal.
(3) Supplemental Report Jansen (Dkt. No. 230-6)
Pages 1-4 – Overruled; properly within the scope of rebuttal.
The parties also filed a number of motions to seal with respect to the documents submitted in connection with the motion for preliminary injunction. The Court ruled separately on those motions. (Dkt. No. 253.)

A. Negotiation of Supply Agreement Between Netlist and Diablo

In early 2008, Netlist sought a vendor to produce its HyperCloud® memory modules and chipsets in silicon and began discussions with Diablo. (Hong Dec., ¶ 23.) As is apparently common in the industry, chip design companies "architect" and design a chip, and then outsource the silicon implementation to other companies. (*Id.*, ¶ 23.) In the course of those discussions, Diablo indicated that it would be interested in obtaining a license for the DxD/LRD technology but Netlist would only agree to an arrangement whereby Diablo would supply Netlist exclusively with a DDR3 register with DxD/LRD enabled and Netlist would provide Diablo with a certain share of those register purchases. (Hong Dec., ¶¶ 24, 25.)

On March 20, 2008, Netlist and Diablo entered into a Mutual Non-Disclosure Agreement ("NDA") to discuss further the possible collaboration between the two companies. (Hong Dec., ¶ 26.) The NDA stated that its purpose was for Netlist and Diablo to "exchange certain Confidential Information . . . for the limited and exclusive purpose of exploring the possibility of having Diablo embed elements of Netlist's proprietary and patented DxD/LRD technology into Diablo products, for Netlist's exclusive use (the 'Business Purpose')." (Hong Dec., ¶¶ 26, 27, Exh. 4.) Starting in April 2008, Netlist provided Diablo with two detailed specifications and a PowerPoint presentation setting forth the HyperCloud® memory module, entitled "LRD/DxD Chip – Preliminary Specification; LRD/DxD ASIC Controller" and "Preliminary LRD/DxD Chip Specification; LRD/DxD Isolation Device." (Declaration of Hyun Lee, ¶ 8 and Exhs. 1-3.)

Diablo's original draft of the development and supply agreement provided that Diablo would own all rights to the finished product. (Declaration of Ben Riley, Exh. 2 [email from C. Paillard at Diablo dated June 30, 2008, attaching draft agreement].) Netlist rejected this language and proposed that Diablo's rights be limited to the Diablo Standard Register, as defined. Diablo countered by proposing language that it would own all rights to the Diablo Standard Register and "the Netlist Chipset," with Netlist's rights limited to "the Netlist Technology." (Riley Dec., Exh. 3 [email from Cedric Paillard dated July 17, 2008, attacking redline version of the agreement].) Netlist's next proposal, and ultimately the final agreement on this issue, was that Diablo would have rights to the Diablo Standard Register plus "Diablo's implementation of the Netlist Chipset,"

and Netlist would have rights to "the underlying architecture of the Netlist Chipset, the Netlist Technology and all Intellectual Property Rights embodied in the Netlist Technology." (Riley Dec., Exh. 4 [email from James Perrott of Netlist to Cedric Paillard, dated July 22, 2008, with redline of proposed agreement].) A definition of "Implementation" then was added to the subsequent draft, as was the clarification in Section 8(a) that "the Netlist Technology is the Confidential Information of Netlist and may not be used for any purpose other than as set forth in this Agreement, including without limitation use of such Netlist Technology to develop a chip competitive to the Netlist Chipset." (Riley Dec., Exh. 5 [email from Tom Dohmen of Diablo dated July 26, 2008].)

B. Terms of the Supply Agreement

After this period of negotiations, on September 10, 2008, Netlist and Diablo entered into the Development and Supply Agreement. (Hong Dec., ¶ 29, Exh. 5, "Supply Agreement".) The Supply Agreement provided that Netlist would retain all rights to:

> (i) its "Netlist Technology," defined as: "Netlist's patented and trade secret protected Rank Multiplication/Load Rank Multiplication technology ('DxD/LRD'), including without limitation its 'know how' and database design technology, developed prior to the Effective Date and provided to Diablo;" and
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> (ii) the "Netlist Chipset," defined as "a DDR3 proprietary chip set solution consisting of a DDR3 standard register (with DxD/LRD physically enabled) and [a] set of isolation devices utilizing the Netlist Technology for use in Netlist RDIMM products implemented in OEM server systems developed under this Agreement in accordance with the Specification.

(Hong Dec., ¶30; Supply Agreement 1-2.) It provided that, upon completion of the project, Diablo would retain ownership rights over the:

> 'Diablo Standard Register' or 'Register' [which] shall mean a DDR3 industry standard register derivative of Netlist Chipset with either or both of DxD/LRD functionality physically disabled.

(*Id.* at p. 2.) Section 2(e) of the Supply Agreement granted Diablo a license to use the Netlist Technology to make the Products, but the Netlist Chipset and Netlist Technology were reserved exclusively for Netlist:

> Diablo shall not sell or manufacture any device constituting the Netlist Chipset or Netlist Technology to or for any person except Netlist; provided that Diablo will be allowed to make, have made, use, design, manufacture,

distribute and sell to any third party the Diablo Standard Register.

(*Id.* at section 2(e).) Section 7, "Intellectual Property Rights," confirmed that Netlist owned the Netlist Chipset and the underlying Netlist Technology, while Diablo owned the Diablo Standard Register and the techniques Diablo developed in completing the HyperCloud® silicon implementation:

> (a) Diablo. All rights, title and interest in and to the design and development of the Diablo Standard Register and Diablo's Implementation of the Netlist Chipset; and any improvement, update, modification or additional parts thereof, and all of Diablo's Intellectual Property Rights embodied in the Diablo Standard Register, shall at all times remain the sole and exclusive property of Diablo. For purposes of this Agreement, "Implementation" shall mean the development of a silicon chip set using the Netlist Technology (including without limitation the packaging) which will meet Netlist's Architecture requirements.
>
> (b) Netlist. All rights, title and interest in and to the design and development of the underlying Architecture of the Netlist Chipset, the Netlist Technology and all Intellectual Property Rights embodied in the Netlist Technology, any improvement, update, modification or additional parts thereof, shall at all times remain the sole and exclusive property of Netlist. For purposes of this Agreement, "Architecture" shall mean system architecture with regard to Load Reduction and Rank Multiplication modules and DIMM topology.

(*Id.* at p. 6.) Section 8(a) of the Supply Agreement sets forth a broad duty of "Nondisclosure and Nonuse" of the other party's Confidential Information, concluding by stating:

> "For purposes of clarification, the Netlist Technology is the Confidential Information of Netlist and may not be used for any purpose other than as set forth in this Agreement, including without limitation use of such Netlist Technology to develop a chip competitive to the Netlist Chipset."

(*Id.* at p. 8.)

C. Performance Under the Supply Agreement

Diablo missed its first deadline to deliver samples of the completed HyperCloud® silicon implementation, as required by the Supply Agreement. After a demand and negotiations, the parties entered into a January 2010 settlement agreement, releasing both parties from any alleged breaches regarding the supply or delivery of products prior to January 12, 2010. (Hong Dec. ¶¶ 40, 41, Exh. 7.) In March 2010, Diablo completed the silicon implementation of the HyperCloud® chipset, but missed the market window for its product specifications. Diablo

finished its design and production work for Netlist's HyperCloud® module in approximately mid-2010.

D. Diablo's Development of TeraDIMM, TeraDIMM Lite, and MegaDIMM and Use of the Netlist ID and RD Chips

In October 2010, Diablo told investors about its plans for a new TeraDIMM memory module product that would combine DRAM and Flash memory. The TeraDIMM memory module would use a module controller, which Diablo called the "Rush," and nine isolation devices, which Diablo called the "Bolts." The TeraDIMM module once completed, would become the product now sold by Diablo's partner SanDisk as the ULLtraDIMM.[2]

In a March 2011 presentation, Diablo stated that "TeraDIMM is built on the technology foundation of DDR3 Load Reduction Technology in production today" with a picture of a "Standard DRAM" DIMM labeled as "HyperCloud Memory." (Riley Dec., Exh. 7 at p. 5.) Discussions between Diablo's Chief Executive Officer and Chief Technical Officer compared their proposed Bolt design against the Netlist's "ISwitch" design (which Diablo referred to as "ID"). (Hong Dec., Exh. 8 at 1, 3 ["we will not be stupid like Netlist and require Bolt to absorb trace delay;" and are we "okay keeping the power where it is on ID or maybe having it go up?"].) In May 2011, a Diablo engineer circulated a presentation entitled "ID → Bolt Modifications" as part of a discussion about "the modifications that needed to be done to the ID to make it work in conjunction with the Rush." (Riley Dec., Exh. 9 at p. 2 ["[m]odify existing ID to accept RPLL commands…instead of RD…[s]ide band access from Rush"]; Exh. 10 [Badalone Deposition] at 154.)

During July 2011, Diablo also wrote the specification for the MegaDIMM. (Riley Dec., Exh. 21 [MegaDIMM specification].) The MegaDIMM was an early prototype of the TeraDIMM that Diablo used for testing before its Rush module controller and Bolt isolation devices had been

[2] Diablo's customer, SMART Storage (as noted, now owned by SanDisk) uses the Rush and Bolt chips from Diablo as components of the ULLtraDIMM memory module that is now on the market. (Declaration of Cedric Paillard, Dkt. No. 212-3, ¶ 16.) In June of 2014, the ULLtraDIMM went on sale to the public through IBM, under the brand name eXFlash. (Hong Dec., ¶ 66.)

built. Because Rush and Bolt were not ready, Diablo used Netlist's RD and ID chips in the MegaDIMM. (*Id.* at §§ 2.2 and 2.2.1; *see also* McAlexander Report at ¶ 210 [MegaDIMM and TeraDIMM Lite made use of the Netlist RD and ID].) The MegaDIMM was first built in approximately November 2011, with 20 to 30 units used for testing the TeraDIMM design (both internally at Diablo and with potential customers) until approximately May or June 2013, when the first working silicon of the Rush chip was delivered. (Badalone Dep. at 203-06, 254.)[3]

As to the TeraDIMM Lite, Diablo decided to build a form of the TeraDIMM using the completed Rush, but also using Netlist RD and ID chips, since the Bolt chips were behind schedule. (Riley Exh. 22, 23; Badalone Dep. at 249-51.) From June to September 2013, Diablo tested the new Rush chip and the rest of the TeraDIMM module using the TeraDIMM Lite module, with its embedded Netlist RD and ID chips, to expedite the overall development schedule. (Jansen Report at 14.) The MegaDIMM allowed Diablo to begin software and firmware development, testing, and debugging, as well as to begin design and testing of the logic that would eventually become the Rush chip. (Jansen Report at 12.)

II. APPLICABLE STANDARDS

Netlist seeks a preliminary injunction. The Court may grant preliminary injunctive relief in order to prevent "immediate and irreparable injury." Fed. R. Civ. P. 65(b). To establish a right to a preliminary injunction, a plaintiff must demonstrate that: (1) it is likely to succeed on the merits; (2) it is likely to suffer irreparable harm absent preliminary relief; (3) the balance of equities tips in its favor; and (4) the injunction is in the public interest. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008); *American Trucking Associations, Inc. v. City of Los Angeles*, 559 F.3d 1046, 1054 (9th Cir. 2009).

So long as the plaintiff makes a threshold showing of irreparable harm and likelihood of success on the merits, a stronger showing on one element may offset a weaker showing on

[3] The Rush chip "taped out" (*i.e.*, reached the last step in the design phase before going to production) in March 2013, and the working silicon chip was delivered in May 2013. The Bolt chip taped out in July or August 2013, with the working silicon chip delivered in September 2013. (Riley Exh. 10, Badalone Dep. at 249-50.)

another. *Alliance for Wild Rockies v. Cottrell,* 632 F.3d 1127, 1131-33 (9th Cir. 2011); *see also Leiva-Perez v. Holder,* 640 F.3d 962, 966 (9th Cir. 2011).[4] The *Winter* factors are evaluated on a sliding scale: "serious questions going to the merits, and a balance of hardships that tips sharply toward the plaintiff can support issuance of preliminary injunction, so long as the plaintiff also shows that there is a likelihood of the irreparable injury and that the injunction is in the public interest." *Alliance for Wild Rockies,* 632 F.3d at 1134-35.

III. ANALYSIS

A. Likelihood of Success on the Merits

To establish a likelihood of success, plaintiff need not conclusively prove its case or show that it is "more likely than not" to prevail. *Univ. of Tex. V. Camenisch,* 451 U.S. 390, 395 (1981); *Leiva-Perez*, 640 F.3d at 966; *see also Singer Mgmt. Consultants, Inc. v. Milgram*, 650 F.3d 223, 229 (3d Cir. 2011). Rather, a "fair chance" of success is the standard for granting preliminary injunctive relief. *Benda v. Grand Lodge of IAM,* 584 F.2d 308, 315 (9th Cir. 1978). The Court finds that Netlist has presented sufficient evidence to establish a likelihood of success on the merits of its breach of contract claims.

Netlist contends that, as soon as it completed the HyperCloud® project, Diablo launched its own project to build the TeraDIMM memory channel module, using the Netlist Technology and specifications, as well as the actual Netlist ID and RD chips, to design and test the prototypes that would eventually become TeraDIMM. As detailed above, Diablo built two prototype products for its TeraDIMM module: the MegaDIMM and the TeraDIMM Lite. Netlist has put forward a variety of evidence indicating that Diablo was utilizing the Netlist ID chip to develop

[4] Diablo's argument that plaintiff must establish entitlement to a preliminary injunction by a "clear and convincing showing" (at 3:27-4:4 and at 17:18-20) misstates the applicable standard and the authorities cited. *Cf. Mazurek v. Armstrong,* 520 U.S. 968, 972 (1997) (on a preliminary injunction, plaintiffs must make a "clear" showing, which more evidence than is required simply to create a triable issue in opposition to a defendant's motion for summary judgment); and *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1158 (9th Cir. 2007) (burdens at preliminary injunction stage track the burdens at trial such that, once the moving party met its burden of showing a likelihood of success on the merits, burden shifts to the non-moving party to make a similar showing on its affirmative defenses).

TeraDIMM and its prototypes. Netlist proffers evidence that Diablo "modified" the Netlist ID chip to design the Bolt chip, "convert[ed] … IP from the ID for Bolt," "stud[ied] the RD/ID layouts" to address design issues, and "borrowed" many of the Bolt circuits "from the ID design." Diablo concedes that it used the Netlist's RD and ID chips in both prototype devices. (*See* McAlexander Report, ¶ 210.) This use of the RD and ID chips allowed Diablo to develop software and firmware and to test and debug the module for months before its own Rush and Bolt chips were ready. According to Netlist's expert, use of the Netlist RD and ID chips reduced Diablo's time for getting TeraDIMM to market by approximately 13 months. (Jansen Report at 12-16.) Diablo's expert offers no contrary opinion on how long it would have taken Diablo to develop TeraDIMM without this advantage, or how Diablo could have developed TeraDIMM in the same time frame without the use of the Netlist RD and ID chips.

Diablo argues that it had a right to use the RD chip *and* the ID chip in developing its prototypes as long as it physically disabled load reduction, rank multiplication or both. This argument conflates the RD chip with the ID chip, which the evidence indicates are separate. The Supply Agreement itself suggests as much, when it says:

> -- the "Netlist Chipset" is a "DDR3 proprietary chip set solution consisting of a DDR3 standard *register* (with DxD/LRD physically disabled) ***and*** a set of isolation devices utilizing the Netlist Technology," and
>
> -- the "Diablo Standard Register" is a "DDR3 *industry standard register* derivative of Netlist Chipset with either or both of DxD/LRD functionality physically disabled."

(Supply Agreement, section 1, p. 2, emphasis supplied.) Under the Supply Agreement, Diablo's rights were limited to:

> -- making and selling a Diablo Standard Register (Supply Agreement §§ 1, 2(e)(ii)) and
>
> -- make use of the intellectual property it had created in the design and development of the Diablo Standard Register, and in its implementation in silicon of the Netlist Chipset (Supply Agreement §7).

Thus, while Diablo had a right to use the "Diablo Standard Register," that use would at most encompass the RD chip (*i.e.*, the register portion of the Netlist Chipset), not the ID chip (*i.e.*, the

ISwitch or isolation device portion of the Netlist Chipset).

As the Court reads the Supply Agreement, based on the evidence in the record, Diablo had no other right to use Netlist's Technology or to use or make the Netlist Chipset for itself or anyone other than Netlist. (Supply Agreement §§ 2(e), 7(b).) While Diablo had rights in the design of the physical implementation of the chipset, including its packaging, it did not have rights to the design of the system architecture, DIMM topology, logic diagrams, and other architecture underlying the chipset. (Supply Agreement § 1 [definitions of "Netlist Technology," "Specifications"]; § 7(b) [Netlist retains title and interest in underlying Architecture of the Netlist Chipset, and in the Netlist Technology, including database design and Specifications].)

Thus, on the record before the Court, the terms of the Supply Agreement did not give Diablo a right to use the designs and technology from ID to build anything, and most particularly not to build a DDR3 module that would compete for use of a computer's Memory channel. More plainly, Section 2(e)(ii)'s exclusivity provisions only allowed Diablo to sell or manufacture any device constituting the Netlist Chipset *or* Netlist Technology *to Netlist*, unless that device was the Diablo Standard Register, *i.e., only the register portion of the Netlist Chipset*. By using the RD *and ID* chip in its prototypes, Diablo manufactured and made use of a "device constituting…the Netlist *Technology*," in terms of architecture, database design, and know-how, even if disabling the DxD/LRD capability meant the device was not the Netlist Chipset. Thus, the evidence strongly indicates that Diablo breached the parties' agreements, and that these breaches allowed Diablo to bypass many months in normal development time to get its own product to market.

In its opposition, Diablo says that it did not use "the LRD/DXD specifications" in the development of Rush and Bolt, and that the Rush and Bolt chips do not operate according to those specifications. However, it is clear from the record that Diablo used the *ID chip itself* (not just the LRD/DXD specifications) as a surrogate on a prototype in order to speed the development and testing of its TeraDIMM module. To the extent Diablo contends that this is not a breach because the DxD/LRD functionality was not employed, and the ID chip's switching and isolation capacities were not used, Netlist has offered evidence to the contrary. (*See* Supp. Report Jansen at 3 (Bolt functions similarly to an ISwitch in that conducts signals, *i.e.*, opens and closes the path,

like a switch, and it "isolates the additional electrical load of the traces to and from the Bolt and the Rush from the system memory interface, as well as isolating the Rush input and output loads," thereby performing an isolation function similar to the ISwitch.) Moreover, the functional similarities are underscored by Diablo's use of the ID chip/ISwitches in the MegaDIMM and TeraDIMM Lite prototypes, in place of their as-yet incomplete Bolt chips.

The Court finds a likelihood of success on the merits of the contract claims. Although the claims overlap substantially, Netlist's conclusive showing on the contract claim means that the Court need not reach the question of likelihood of success on the trade secret claims for purposes of granting this motion.

B. Irreparable Harm

To establish a right to a preliminary injunction, a plaintiff must demonstrate "a significant threat of irreparable injury." *Simula, Inc. v. Autoliv, Inc.*, 175 F.3d 716, 724 (9th Cir. 1999). Evidence of lost business or business opportunities, as well as damage to goodwill, will satisfy the requirement to show irreparable harm. *See, e.g., Stuhlbarg Int'l Sales Co., Inc. v. John D. Brush and Co.*, 240 F.3d 832, 841 (9th Cir. 2001) ("[e]vidence of threatened loss of prospective customers or goodwill certainly supports a finding of the possibility of irreparable harm"). "A district court has considerable discretion in fashioning suitable relief and defining the terms of an injunction." *Lamb-Weston, Inc. v. McCain Foods, Ltd.*, 941 F.2d 970, 974 (9th Cir. 1991). "Injunctive relief, however, must be tailored to remedy the specific harm alleged." *Id.* An injunction may be used to eliminate any unfair head start a defendant may have gained by improper use of confidential information, and is appropriate if it "place[s the defendant] in the position it would have occupied if the breach" had not occurred. *Winston Research Corp. v. Minnesota Mining and Mfg.*, 350 F.2d 134, 141-42 (9th Cir.1965); *accord Lamb-Weston,* 941 F.2d at 974.

Netlist argues that Diablo's breach of the Supply Agreement and Non-Disclosure Agreement has caused, and will continue to cause, irreparable harm. Netlist's products (the HyperCloud® module and the NVvault® module) and Diablo's ULLtraDIMM are all products that provide data capacity and storage using the computer's Memory channel, and are marketed to

customers as data recovery products. (Hong Dec., Exh. 12 [SanDisk ad for ULLtraDIMM touting data storage and data recovery benefits; Exh. 13 [Netlist press release promoting NVVault®, and Diablo press release promoting ULLtraDIMM, both presented as Memory channel storage for Supermicro servers]; Exh. 14 [industry report comparing NVDIMMs, like the Netlist NVVault®, and ULLtraDIMM, and stating "these solutions do compete for the same real estate"].) Netlist argues that each sale of a SanDisk/Diablo ULLtraDIMM module forecloses a sale of its NVVault® module. (*Id.*, ¶ 73.)

Netlist further argues that it has lost opportunities to work with other companies to tailor its NVVault® and new HyperVault products to their needs because those companies have instead elected to work with Diablo and use the ULLtraDIMM. (Hong Dec. ¶¶ 77- 82.) According to Hong, Netlist and the SanDisk/Diablo team are the only companies currently capable of producing advanced hybrid memory products like ULLtraDIMM and HyperVault. (Hong Dec., ¶ 80.) Were it not for Diablo's improper use of the RD and ID chips to gain this advantage, Netlist contends that it would be the only viable partner to these other computer companies. (Hong Dec., ¶¶ 80-82.) Netlist's expert, in examining the time it took to complete work on the Rush and Bolt, estimates that Diablo obtained a head start of 13 months on account of Diablo's use of the RD and ID chips in its prototypes.[5]

The Court finds that the showing of a head-start advantage to Diablo, based upon an improper use of Netlist's technology, is sufficient to establish that any harm to Netlist would not be remedied by money damages alone. Indeed, the Supply Agreement itself states that a breach of the Confidential Information restrictions in the agreement "may cause irreparable harm to the

[5] The only authorities offered on this point, after the Court's specific solicitation of authority from the parties in advance of the December 19, 2014 hearing, indicate that an injunction to remedy a head start advantage improperly obtained should run from the date of the order. *See Winston Research Corp. v. Minnesota Min. & Mfg. Co.*, 350 F.2d 134, 140 (9th Cir. 1965) (two years from the date of judgment); *Plant Indus., Inc. v. Coleman*, 287 F. Supp. 636, 645 (C.D. Cal. 1968) (18 months from the date of the opinion); *Verigy US, Inc. v. Mayder*, No. C-07-04330 RMW, 2008 WL 564634, at *11 (N.D. Cal. Feb. 29, 2008) (finding it "appropriate to delay the distribution of the Flash Enhancer for the amount of time STS saved in its development process by use of Verigy's trade secret information").

nonbreaching party [and a]ny such breach *shall entitle* the nonbreaching party to injunctive relief in addition to all legal remedies." (Supply Agreement ¶ 8(d) at p. 7 [emphasis supplied].) In the Nondisclosure Agreement, Diablo agreed "that the unauthorized disclosure or use of such Confidential Information would cause irreparable harm and significant injury, the degree of which may be difficult to ascertain," giving Netlist "the right to seek an immediate injunction enjoining any breach…." (Hong Dec., Exh. 4 at § 6.)[6] "Confidential Information" was defined as "Netlist Technology," *i.e.*, "Netlist's patented and trade secret protected Rank Multiplication/Load Rank Multiplication technology ('DxD/LRD'), including without limitation its 'know how' and database design technology, developed prior to the Effective Date and provided to Diablo." (Supply Agreement at 2.) Section 8(a) makes clear that that Confidential Information "may not be *used* for any purpose other than as set forth in this Agreement, including…to develop a chip competitive to the Netlist Chipset." (Supply Agreement, § 8, emphasis supplied.) Here, the evidence indicates that Netlist is likely to prevail by showing that the Netlist Technology—specifically the combination of the RD and ID chips—was used by Diablo to develop a chip competitive to the Netlist Chipset. Consequently, Netlist has satisfied this element in favor of injunctive relief.

Diablo argues that a breach of the Supply Agreement in the development of the MegaDIMM and TeraDIMM from 2011 to 2013 is not worthy of an injunction, since the prototype products were never offered for sale. This argument misses the significance of the breach here. By misusing the technology that Diablo had been given in confidence under the Supply Agreement, Diablo gained an advantage it would not have otherwise had. This advantage is sufficient to give rise to irreparable harm.

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[6] Diablo's argument that Section 8 of the Supply Agreement only authorizes injunctive relief as a remedy for *disclosure* of Confidential Information. This is incorrect. Section 8(a) requires that each party "shall not *use*…[and] shall not disclose" such information. (Supply Agreement, §8(a), emphasis supplied.) Similarly, the argument that Section 8(d)'s language is merely permissive is disingenuous, given that the provision states that "[a]ny such breach *shall* entitle the nonbreaching party to injunctive relief in addition to all legal remedies." (Supply Agreement at §8(d), emphasis supplied.)

Diablo further contends that its products do not compete with the Netlist HyperCloud® product. Diablo argues that Netlist does not explain how a DRAM memory device could be competitive with a Flash storage device that will not work as a DRAM. Again, Diablo's argument misses the mark. The two products are used to perform the same function and attach to the same memory channel.

Finally, Diablo contends that injunctive relief is not warranted because Netlist delayed in seeking such relief. The Court rejects this argument as well. Netlist has argued persuasively that it did not obtain sufficient information in discovery to have moved sooner, largely because of Diablo's refusal to produce information it was later ordered to produce. While the Court agrees that Netlist might have been more aggressive in its efforts to obtain the information it needed, the majority of the delay here is reasonable based on the discovery history, even if not entirely unavoidable.

C. Balance of Equities

In determining the balance of equities, courts look to "the degree of harm that will be suffered by the plaintiff or the defendant if the injunction is improperly granted or denied." *Scotts Co. v. United Indus. Corp.*, 315 F.3d 264, 284 (9th Cir. 2002); *accord Winter*, 555 U.S. at 24 (2008).

Diablo contends that an injunction would inflict immediate and irreversible harm, since Rush and Bolt are Diablo's only products, and even a temporary stoppage in shipments prior to trial would have an irrevocable effect on its customer relationships.

The Court finds that the harm to Netlist is of a nature and degree that outweighs the detriment to Diablo in issuance of a prohibitory preliminary injunction.

Diablo further argues that, even if a preliminary injunction were granted, Netlist would still face competition from other market participants, citing *Perfect 10, Inc. v. Google, Inc.*, 653 F.3d 976, 982 (9th Cir. 2011). Diablo's argument simply is not persuasive. In *Perfect 10*, the Ninth Circuit affirmed the principle that irreparable harm must be causally connected to the alleged violation of rights at issue. *Id.* Competition from other companies is irrelevant, since it is not the product of an alleged breach of an agreement preventing use of confidential information to gain an

improper advantage.

D. Public Interest

"The public interest inquiry primarily addresses [the] impact on non-parties rather than parties." *Sammartano v. First Judicial District Court,* 303 F.3d 959, 974 (9th Cir. 2002). The Court finds that there is a public interest in enforcing contracts, and particularly in enjoining breach of an agreement not to use or disclose information shared with a party under a confidentiality agreement. *See Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 483 (1974) ("it is hard to see how the public would be benefited by disclosure of customer lists or advertising campaigns; in fact, keeping such items secret encourages businesses to initiate new and individualized plans of operation, and constructive competition results"). There is also a public interest favoring an injunction against the unfair competition that arises from improper use of such confidential information. *See Vinyl Interactive, LLC v. Guarino*, No. C 09-0987 CW, 2009 WL 1228695, at *8 (N.D. Cal. May 1, 2009) ("injunction, which simply enjoins Eddy from using Vinyl's proprietary information, would further the public's interest in prohibiting unfair competition. In addition, it would not work any hardship on Eddy, which has no right to use the information in the first place.")

Diablo contends that the public interest would be harmed because an injunction would "disrupt an entire ecosystem of persons, entities, distributors, resellers, and end-users of devices that contain Rush/Bolt chipsets." This argument fails as it seems to rely mainly on harm to the agents and partners of Diablo, rather than members of the public.

E. Scope of Relief

Based upon the foregoing, the Court finds that a prohibitory injunction barring Diablo (and its agents, servants, employees and attorneys, and those persons who are in active concert or participation with Diablo) from making, using, selling or distributing the Rush and Bolt chips is supported by the evidence here.

After the briefing and hearing on the preliminary injunction, third parties SMART Storage Systems, Inc. and SanDisk Corporation (collectively "SanDisk/SMART Storage") objected to the scope of the relief, and specifically identification of them as "persons who are in active concert or

participation with Diablo." The Court has rejected their arguments by separate order.

No dispute exists that SanDisk/SMART Storage is in a partnership with Diablo as respects the Rush and Bolt chips, which are incorporated into the ULLtraDIMM products that SanDisk/SMART Storage are now manufacturing and selling. Under Federal Rule of Civil Procedure 65(d)(2), an injunction may bind "persons who are in active concert with" the defendant with respect to the subject matter of the injunction. While it is true that "a court generally may not enjoin a non-party to the action before it…[a] party who acts in concert with an enjoined party, however, may be subject to the strictures of an injunction." *Aevoe Corp. v. AE Tech Co.*, 727 F.3d 1375, 1384 (Fed. Cir. 2013) (internal citations omitted). "'Active concert or participation' has been interpreted to include both aiders and abettors of, and privies of, an enjoined party." *Id.* (citing, *inter alia*, *Golden State Bottling Co., v. NLRB,* 414 U.S. 168, 179–80 (1973)). This understanding of "active concert or participation" takes into account the concern that the objectives of an injunction may be "thwarted by the conduct of parties not specifically named." *Id.*

In *Aevoe*, the Federal Circuit affirmed enforcement of an injunction against a reseller of products because it was acting in concert with the accused patent infringer defendant. *Id.* The contractual relationship between the defendant and the reseller made the reseller a privy of the defendant, and therefore bound by the terms of the injunction, even if not specifically named in the injunction. *Id.* The district court's later amendment of the injunction order simply confirmed what was obvious from the original injunction, that contracting partners of the defendant could not sell the infringing products any more than the defendant who was expressly barred from doing so by the original order. *Id.*[7]

Here, as in *Aevoe*, the record before the Court indicates that there is a significant history and contractual relationship between Diablo and SanDisk/SMART Storage bearing directly on the

[7] The citation by Diablo and SanDisk/SMART Storage to *Am. Semiconductor, Inc. v. California Assignments LLC*, No. 12-CV-06138-LHK, 2013 WL 5937968 (N.D. Cal. Oct. 30, 2013) is inapposite, since that case was focused on whether a successor in interest to a company could be bound by an injunction, not whether a party in an active contractual relationship selling the products at issue could be bound.

conduct to be enjoined, such that SanDisk/SMART Storage are "persons who are in active concert with" Diablo with respect to the subject matter of the injunction. SanDisk/SMART Storage and Diablo have worked together in a partnership and agreement to develop the ULLtraDIMM product which the record suggests is the only product using the Rush and Bolt chips from Diablo. In May 2013, Diablo publicly announced that it had entered into an exclusive relationship with SMART Storage to design and manufacture the ULLtraDIMM product. (Hong Dec., Dkt. No. 192, ¶63.) Three months later, on about August 12, 2013, SMART Storage publicly announced that it had begun customer sampling of the ULLtraDIMM module it developed with Diablo. (*Id.*) In June 2014, IBM began selling the ULLtraDIMM product under the brand name "eXFlash." (*Id.* at 66.) As of the present time, SanDisk and SMART Storage have issued multiple purchase orders to Diablo for Rush and Bolt chips, some of which have been fulfilled and some yet to be delivered. (Dkt. No. 270-5.) In sum, the particular nature of the relationship here establishes an identity of interests, and lack of independence, as between Diablo and SanDisk/SMART Storage to consider them in privity for purposes of the preliminary injunction.

Just as the preliminary injunction bars Diablo from "manufacturing, using, distributing and/or selling the Rush and Bolt integrated circuits," it properly bars those in privity with Diablo and with notice of the preliminary injunction from doing so. The Court's identification of SanDisk and SMART Storage in the preliminary injunction order as entities "in active concert or participation with Diablo" with respect to the subject of the injunction is completely consistent with the Court's authority under Rule 65(d)(2).[8]

However, the Court does not find the Netlist's requested remedy of a recall is warranted. A mandatory injunction to compel performance of an act, rather than simply preserve the status quo pending a determination of the case, is generally disfavored. *Park Village*, 636 F.3d at 1160;

[8] The record indicates that SanDisk/SMART Storage was on notice of the allegations in the litigation and aware of the potential for a preliminary injunction relative to the Rush and Bolt chips well before it began selling the ULLtraDIMM product to the public in June 2014. Given that, SanDisk/SMART Storage cannot now claim to be a bystander to the litigation, caught unawares of the risk of proceeding with manufacturing and selling the ULLtraDIMM product.

Transwestern Pipeline Co. v. 17.19 Acres of Prop. Located in Maricopa Cnty., 550 F.3d 770, 776 (9th Cir. 2008); *Marlyn Nutraceuticals, Inc. v. Mucos Pharma GmbH & Co*., 571 F.3d 873, 879 (9th Cir. 2009) (denying injunction to order a recall in a trademark infringement case). An affirmative injunction requires a higher showing of "facts and law clearly favor[ing] the moving party," or extremely serious impending injury. *Park Village*, 636 F.3d at 1160; *Marlyn Nutraceuticals*, 571 F.3d at 879; *Stanley v. Univ. of S. Cal.,* 13 F.3d 1313, 1320 (9th Cir.1994) (mandatory preliminary injunction should be denied "unless the facts and law clearly favor the moving party"). Netlist has not shown that it is entitled to such an extraordinary remedy here, nor has it shown that a recall is the appropriate remedy for the consequences of a past breach of contract.

Diablo argues that the injunction against it, its partners, and its agents would be a "worldwide injunction" that would regulate a Canadian company's activities in sovereignties beyond the United States border contrary to international law and comity. Diablo argues that an injunction is not permitted to have extraterritorial effect, citing *Equal Emp't Opportunity Comm'n v. Arabian Am. Oil Co*., 499 U.S. 244, 261-78 (1991) *superceded by statute*. The citation does not support Diablo's argument, as it concerns the extraterritorial effect of a statute which, at one time, did not specifically state whether it had such an effect, not a Court's ability to exercise its equitable powers to enjoin a breach of contract. "Where, as here, there can be no interference with the sovereignty of another nation, the District Court in exercising its equity powers may command persons properly before it to cease or perform acts outside its territorial jurisdiction." *Steele v. Bulova Watch Co.*, 344 U.S. 280, 289 (1952) (affirming injunction against use of trademark, registered under U.S. law, on watches assembled in Mexico). Moreover, a court may properly enjoin a party and its agents so long as it has jurisdiction over the party and the claim. *See Zepeda v. U.S. I.N.S.*, 753 F.2d 719, 729 (9th Cir. 1983); *Lamb-Weston*, 941 F.2d at 974 ("A worldwide injunction here…place[s the defendant] in the position it would have occupied if the breach of confidence had not occurred prior to the public disclosure") (internal citation omitted). Diablo offers no reason why its Canadian origins, or manufacturing activity in Asia, should preclude the injunctive relief sought here.

F. Security Requirement

Under Rule 65(c) of the Federal Rules of Civil Procedure, no party may be granted a preliminary injunction without first posting security "in an amount that the court considers proper to pay the costs and damages sustained by any party found to have been wrongfully enjoined or restrained." Fed. R. Civ. P. 65(c). No party addressed the proper amount of a bond prior to or in conjunction with either hearing on the motion for preliminary injunction. At the Court's direction,[9] the parties have submitted supplemental briefing and evidence on the proper amount of a bond in this action.

Based upon the evidence submitted, and given the relatively short period of time that the preliminary will be in place prior to trial, the Court finds that a bond in the amount of $900,000, the approximate amount of the net profits Diablo would have received for the chipset sales affected by the preliminary injunction, is appropriate.[10]

IV. CONCLUSION

Based upon the foregoing, the Motion for Preliminary Injunction is **GRANTED IN PART**. The Court **ORDERS** as follows:

(1) Defendant Diablo Technologies, Inc., its officers, agents, servants, employees and attorneys, and those persons who are in active concert or participation with Diablo, including but not limited to SanDisk and SMART Storage, are hereby enjoined, until such time as the Court orders otherwise, from manufacturing, using, distributing and/or selling the Rush and Bolt integrated circuits manufactured by or obtained from Diablo, including any such Rush and Bolt integrated circuits contained in or provided along with the ULLtraDIMM module, the IBM eXFlash module, or any other product.

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[9] Although Diablo's failure to address the amount of a bond in connection with the preliminary injunction papers would support requiring a nominal amount for a bond, the Court has exercised its discretion to permit the parties to submit arguments and evidence after the close of briefing. *See Connecticut Gen. Life Ins. Co. v. New Images Beverly Hills*, 321 F.3d 878, 882-83 (9th Cir. 2003).

[10] The Court notes that Diablo's supplemental briefing did not address net profits but only gross revenues, which the Court does not find to be the correct measure for purposes of setting the bond amount.

(2) Netlist shall file proof of issuance of a bond in the amount of **$900,000.00** forthwith. Should Netlist fail to such proof within **five** business days of issuance of this Amended Order, the preliminary injunction shall be dissolved without further order of the Court.

(3) In light of the impact and remedy provided herein and the benefit of a final resolution of the claims on their merits, and as previously stated in detail in the Court's Order Advancing Trial Date (Dkt. No. 252), the trial date in this matter has been advanced to **March 9, 2015.**

IT IS SO ORDERED.

Dated: January 12, 2015

YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT JUDGE

United States District Court
Northern District of California