

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA**

Dane Technologies, Inc.,

Plaintiff,

v.

Gatekeeper Systems, Inc.,

Defendant.

**MEMORANDUM OPINION  
AND ORDER**

Civil No. 12-2730 ADM/JJK

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Minneapolis, MN, on behalf of Plaintiff.

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Knobbe, Martens, Olson & Bear, LLP, Irvine, CA; David R. Fairbairn, Esq., Kinney & Lange,  
PA, Minneapolis, MN, on behalf of Defendant.

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**I. INTRODUCTION**

On June 24, 2015, the undersigned United States District Judge heard oral argument on Defendant Gatekeeper Systems, Inc.'s ("Gatekeeper") Motions for Summary Judgment [Docket Nos. 308, 313, 318, 323, and 327], and Plaintiff Dane Technologies, Inc.'s ("Dane") Motion for Partial Summary Judgment [Docket No. 338]. For the reasons set forth below, Gatekeeper's motions are granted in part and denied in part, and Dane's motion is granted in part and denied in part.

**II. BACKGROUND**

Dane is a Minnesota corporation, with its principal place of business in Brooklyn Park, Minnesota. Am. Compl. [Docket No. 72] ¶ 1. Dane owns by assignment the three patents at issue in this case, U.S. Patent No. 6,220,379 (the "'379 Patent"), U.S. Patent No. 7,389,836 (the "'836 Patent"), and U.S. Patent No. 7,493,979 (the "'979 Patent") (collectively, the "Patents-in-

Suit”). Id. ¶¶ 7–10.

On April 24, 2001, the United States Patent and Trademark Office (“PTO”) issued the ’379 Patent entitled “Cart Retriever Vehicle.” Id. ¶ 7. On June 24, 2008, the ’836 Patent, entitled “Power-assisted cart retriever with attenuated power output” was issued. Id. ¶ 8. And finally, on February 24, 2009, the ’979 Patent also entitled “Power-assisted cart retriever with attenuated power output” was issued. Id. ¶ 9. The Patents-in-Suit all cover “shopping cart retrievers with motor controllers that have features designed to protect the motor.” Id. ¶ 11.

The ’379 Patent describes the prior art invention which the inventors sought to improve with their invention. See id. Ex. A (the “’379 Patent”) 1:15-56. The prior art invention “involves using a motorized device for pulling a column of shopping carts through the parking lot in a train-like fashion.” Id. at 1:31-33. A rope is attached from the motorized device and strung through all the carts. Id. at 1:33–35. Each time a cart is added to the column, the operator unhooks the rope and then hooks in the new carts. Id. at 1:35–38. The ’379 Patent describes its primary objectives as providing a motorized apparatus with a remote control and manual mode that would more easily steer, maintain a consistent speed, handle a greater number of carts at one time, decrease the amount of manual manipulation of the carts, and automatically regulate the top output revolutions per minute (rpm) of the drive motor. Id. at 2:46-3:14. The ’836 Patent and the ’979 Patent describe efforts to regulate the power provided to the drive motor to prevent overloaded conditions. Id. Ex. B (the “’836 Patent”) 2:27-34; Ex. C (the “’979 Patent”) 2:28-34.

Dane has accused a number of Gatekeeper products of infringing the Patents-in-Suit. Dane accuses Gatekeeper products of infringing claims 1, 2, 3, 5, 6, 7, 15, and 27 of the ’379 Patent. Suppl. Robbennolt Decl. [Docket No. 353] Ex. 52 (“Fernald Report”) at 29. With

respect to the '836 Patent, Dane accuses Gatekeeper of infringing claims 1, 2, 3, 4, 7, and 10. Id.

Dane accuses Gatekeeper of infringing claims 1, 2, 3, 5, 7, 9, 18, 19, and 20 of the '979 Patent.

Id.

Claim 1 of the '379 Patent, recites as follows:

1. A vehicle for moving shopping carts, comprising:
  - (a) a chassis supported by at least two wheels;
  - (b) a shopping cart coupler mounted to the chassis releasably attaching at least one shopping cart or a shopping cart train;
  - (c) an electric motor supported by said chassis powering said vehicle in response to a drive signal;
  - (d) a control panel having a mode selector selecting between a plurality of operational modes, including a manual mode and a remote mode;
  - (e) at least one remote control device generating and transmitting an operator signal to operate the vehicle in the remote mode, the operator signal including a target speed value;
  - (f) a manual control device generating and transmitting an operator signal and a stop signal to operate the vehicle in the manual mode;
  - (g) a receiver on the vehicle communicating with the remote control device to operate the vehicle in the remote mode;
  - (h) a controller on the vehicle controlling vehicle movement in response to the operator signal, said controller comprising:
    - i. a signal receiver connected to the receiver, the signal receiver receiving the operator signal;
    - ii. a motor switching circuit generating a motor interface signal in response to the operator signal;
    - iii. a motor interface circuit receiving the motor interface signal from the motor switching circuit and generating a drive signal to power the motor;

- iv. a speed sensing circuit generating a present speed signal;  
and
  - v. a speed regulating circuit coupled to the motor interface circuit, wherein the speed regulating circuit is operative to modify the drive signals in response to changes in the present speed signal such that the present speed signal approaches one of the at least one target speed, whereby the speed of the vehicle tends to be maintained substantially constant during the attachment and release of the one or more shopping carts or shopping cart trains coupled to the vehicle
- (i) a brake controller operative to drive the electric motor in an opposite direction in response to the stop signal.

'379 Patent 13:14-58.

Claim 1 of the '836 Patent recites, as follows:

1. A shopping cart retriever comprising:  
an electric motor;  
a drive system powered by the electric motor;  
a controller that controls power to the electric motor and includes a first power limit and a second power limit; and  
a throttle control in communication with the controller, wherein the first power limit is the controller's normal power limit that results when the controller self-limits its maximum power output through a sensing feature of the controller that exists to prevent damage to the controller,  
wherein the second power limit is selectable and limits the controller's maximum power output to a level that is less than that of the first power limit, and  
wherein the sensing feature is a temperature sensing feature that senses a temperature of the controller.

'836 Patent 8:22–36.

Claim 1 of the '979 Patent recites, as follows:

1. A shopping cart retriever comprising:  
an electric motor;  
a drive system powered by the electric motor;  
a controller adapted to provide power to the electric motor and including a first power limit, a second power limit, and a burst mode; and  
a throttle control in communication with the controller,

wherein the first power limit is the controller's normal power limit that results when the controller self-limits its maximum power output through a sensing feature of the controller that exists to prevent damage to the controller,  
wherein the second power limit is selectable and limits the controller's maximum power output to a level that is less than that of the first power limit, and  
wherein the burst mode allows the controller's maximum power output to exceed the second power limit for a limited time before again becoming subject to the second power limit.

'979 Patent 8:20–37.

### **A. Procedural History**

This lawsuit was originally filed on October 25, 2012. Compl. [Docket No. 1]. Dane accused Gatekeeper's CartManager XD and CartManager XD+ products of infringing the Patents-in-Suit. Id. ¶¶ 12–20.<sup>1</sup> Gatekeeper counterclaimed for invalidity of the Patents-in-Suit. See Answer & Countercl. [Docket No. 7]. On October 14, 2013, the parties identified 10 disputed claim terms for resolution by judicial construction. Joint Claim Construction Statement [Docket No. 39]. Three days later, Gatekeeper moved for Summary Judgement on Laches and Equitable Estoppel with Respect to the '379 Patent [Docket No. 40]. Gatekeeper's motion was denied as premature. See Order [Docket No. 70].

The parties exchanged claim construction briefs in early 2014 and a claim construction hearing was held on March 26, 2014. While claim construction was under advisement, Dane was granted permission to amend its infringement contentions. See Order [Docket No. 190]. A supplemental claim construction hearing occurred on September 11, 2014.

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<sup>1</sup> In its original Complaint, Dane did not assert the '979 Patent. Rather, Dane asserted U.S. Patent No. 7,493,379, which covered a business process managing system. See Compl. Ex. 1. This appears to be a typographical error, as the '979 Patent was asserted in Gatekeeper's Answer and Counterclaim [Docket No. 7] and consistently throughout this litigation.

After discovery closed, the parties filed the instant motions. Gatekeeper filed five motions for summary judgment. In the first motion, Gatekeeper argues that none of its accused products infringe the Patents-in-Suit. In Gatekeeper's second motion, Gatekeeper argues that specific accused products do not infringe the Patents-in-Suit. As to the third motion, Gatekeeper argues that Dane's potential damage recovery is limited. The fourth motion contends that Gatekeeper is entitled to a ruling that it did not willfully infringe the Patents-in-Suit. Finally, in the fifth motion, Gatekeeper posits that laches and equitable estoppel limit the scope of Dane's lawsuit.

Dane also moved for partial summary judgment. Dane argues that it is entitled to a ruling that laches and equitable estoppel defenses do not apply, that Gatekeeper willfully infringed the Patents-in-Suit, and that the Patents-in-Suit are not invalid under 35 U.S.C. § 102(f).

### **III. DISCUSSION**

#### **A. Legal Standard**

Summary judgment is appropriate if there are no genuine issues of material fact and the moving party can demonstrate that it is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). A fact is material if it might affect the outcome of the suit, and a dispute is genuine if the evidence is such that it could lead a reasonable jury to return a verdict for either party. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). A court considering a motion for summary judgment must view the facts in the light most favorable to the non-moving party and give that party the benefit of all reasonable inferences to be drawn from those facts. Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986). Summary judgment is appropriate if the nonmoving party "fails to make a showing sufficient to establish the existence of an

element essential to that party’s case, and on which that party will bear the burden of proof at trial.” Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). “To defeat a motion for summary judgment, a party may not rest upon allegations, but must produce probative evidence sufficient to demonstrate a genuine issue [of material fact] for trial.” Davenport v. Univ. of Ark. Bd. of Trs., 553 F.3d 1110, 1113 (8th Cir. 2009) (citing Anderson, 477 U.S. at 247-49).

## **B. Noninfringement as to All Products**

Gatekeeper first argues that its accused products do not meet the claim limitations of the Patents-in-Suit. Each of Gatekeeper’s arguments are addressed below and are organized by which Patent-in-Suit Gatekeeper argues it does not infringe.

### **1. The ’379 Patent**

#### **a. Speed Sensing**

The first noninfringement argument Gatekeeper raises regarding the ’379 Patent is whether Gatekeeper’s products monitor the speed of the vehicle. Claim 1 of the ’379 Patent recites the following limitation:

1. A vehicle for moving shopping carts, comprising:

\* \* \*

(h) a controller on the vehicle controlling vehicle movement in response to the operator signal, said operator signal comprising:

\* \* \*

iv. a speed sensing circuit generating a present speed signal.

’379 Patent 13:14–46. The parties agreed on the construction of the term “a speed sensing circuit generating a present speed signal” as: “an electrical circuit connected to or within the controller that monitors the speed of the vehicle and generates a signal that corresponds to the

speed of the vehicle.” Mem. Op. Order [Docket No. 210] 5; Dane Techs., Inc. v. Gatekeeper Sys., Inc., No. 12-2730, 2014 WL 3420788, at \*3 (D. Minn. July 14, 2014).

Gatekeeper argues that since its accused products do not monitor the speed of the vehicle, they do not infringe. Dane counters that Gatekeeper’s products indirectly monitor the speed of the vehicle through the motor’s armature current. Dane argues that the speed of the vehicle can be calculated if the motor’s armature current is known and therefore, Gatekeeper’s vehicles satisfy this claim limitation.

The manual for the Curtis controller used in Gatekeeper’s products accused of infringing the ’379 Patent states that “internal circuitry monitors the current and voltage in the motor relative to throttle position and adjusts the controller output to maintain as constant a speed as possible during varying motor loads.” Suppl. Robbennolt Decl. Ex. 40 A-6. Dane’s expert explains how the armature current is proportional to the speed of the motor. Id. Ex. 52 at 43–45. Thus, by monitoring the armature current, the speed of the vehicle is known or monitored. A reasonable juror could conclude that Gatekeeper’s vehicles meet this claim limitation. Thus, Gatekeeper is not entitled to summary judgment.

#### **b. Mode Selector**

Claims 1, 17, and 27 describe a “mode selector.” ’379 Patent 13:21; 15:1; 16:17. The parties each submitted proposed constructions for this claim term. Gatekeeper proposed that “mode selector” is a “user-selectable input component (such as a button or switch) that acts independently of the components that generate operator signals to operate the vehicle.” Mem. Op. Order [Docket No. 227] 8; Dane Techs., Inc. v. Gatekeeper Sys., Inc., No. 12-2730, 2014 WL 5311430, at \*5 (D. Minn. Oct. 17, 2014). Dane argued that “mode selector” did not require

construction and should be given its plain and ordinary meaning. The Court rejected Gatekeeper’s proposal at claim construction because it would have imported a limitation that was not indicated in the claim language. Id. Nothing in the specification or the claim language prevented the mode selector from acting as the component that generates operator signals.

Gatekeeper is reasserting its argument that the mode selector must be separate and distinct from the manual mode and remote mode limitations. Nothing in the claims conclusively establish that Gatekeeper’s fast and slow buttons on its remote cannot be the mode selector. Gatekeeper again argues that Dane’s interpretation of mode selector reads the limitation out of the claims. These arguments were previously rejected and that conclusion stands.

#### **i. Prosecution history estoppel**

The parties disagree whether prosecution history estoppel bars Dane from pursuing infringement of the mode selector limitation under the doctrine of equivalents. Gatekeeper argues that Dane’s amendment of the mode selector limitation during prosecution was to avoid prior art and thus resulted in the surrender of otherwise appropriate equivalents that would have been included in the broader claim scope. Dane responds that its amendment was independent of any issues of patentability and therefore prosecution history estoppel does not preclude it from pursuing infringement under the doctrine of equivalents.

#### **1. Presumption of prosecution history estoppel applies**

“Prosecution history estoppel prevents a patentee from recapturing through the doctrine of equivalents the subject matter that the applicant surrendered during prosecution.” Integrated Tech. Corp. v. Rudolph Tech., Inc., 734 F.3d 1352, 1356 (Fed. Cir. 2013) (citing Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 535 U.S. 722, 734 (2002)). Prosecution history

estoppel “presumptively applies when the applicant made a narrowing claim amendment related to patentability.” Integrated, 734 F.3d at 1356. “[A] voluntary amendment may give rise to prosecution history estoppel.” Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki, 344 F.3d 1358, 1366 (Fed. Cir. 2003) (quotations omitted). “When the prosecution history record reveals no reason for [a] narrowing amendment, Warner-Jenkinson<sup>2</sup> presumes that the patentee had a substantial reason relating to patentability.” Id. at 1366-67.

## 2. Prosecution history of the ‘379 Patent

The ‘379 Patent originally did not claim a mode selector. Rather, the ‘379 Patent claimed a “means for generating a drive signal” (manual) and a means for generating a drive signal with a “remote transmitter” (remote) in claim 1 and claim 4, respectively.

Katzenellenbogen Decl. [Docket No. 332] Ex. 4 at 23. In rejecting the application, the Examiner argued claims 1 and 4 were obvious in light of prior art because the “Beeler” Patent taught “a cart retrieving vehicle . . . [having] a controller means for operating the vehicle (speed and braking) in both a remote mode and manual mode.” Id. at 51. After the rejection, Dane amended claim 1 to include “a control panel, comprising a means for generating a selection signal, wherein the selection signal corresponds to one of the manual means and the remote means . . . .” Id. at 58. The prosecution history provides no indication why the control panel limitation was added.

The Examiner again rejected the claims as obvious in light of prior art, specifically the “Gingerich” Patent. Id. The Examiner stated that although Gingerich doesn’t show “a means for selecting manual or remote . . . it would have been obvious . . . to modify the Gingerich tractor to

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<sup>2</sup> Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co., 520 U.S. 17, 33 (2003).

incorporate . . . a manual/remote switch in order to avoid conflicting signals.” Id. at 65–66. Dane then requested to cancel claims 1 through 31 and wrote new claims which disclose “a control panel having a mode selector selecting between a plurality of operational modes, including a manual mode and a remote mode.” Id. at 76–81. Again, there is no description in the prosecution history why this amendment was made.

Once again, the Examiner rejected Dane’s changes as obvious in light of Gingerich. The Examiner again argued that it would have been obvious to modify Gingerich to incorporate a selection means or a manual or remote switch. Id. at 89–90, 94. Dane did not amend its mode selector claims in response to the Examiner’s rejection. Further communications occurred between Dane and the Examiner, but the ‘mode selector’ amendment described above was the last relevant amendment before the claims were allowed. Id. at 177–82.

### **3. Application of prosecution history estoppel**

In determining whether prosecution history estoppel applies, the threshold inquiry is whether Dane made a narrowing amendment and whether that amendment was related to patentability. Integrated, 734 F.3d at 1356. Here, it is undisputed that Dane narrowed its claims by adding the mode selector limitation. However, Dane argues there is no evidence in the record to prove that its amendments were made for a substantial reason relating to patentability and that it did not cite its amendment to overcome an Examiner’s rejection. In addition, Dane argues in its brief on this motion that the mode selector amendment was for purposes of “clarity.” Mot. Partial Summ. J. [Docket No. 338] at 8.

Dane correctly asserts no evidence in the prosecution history documents that the amendments were related to patentability. However, the presumption arises in the absence of

evidence that the amendment isn't related to patentability. Festo, 344 F.3d at 1366–67. Here, the prosecution history is silent of any motivation for making the amendments. It is therefore presumed that the amendment was made for a substantial reason relating to patentability. Id. That the Examiner's rejection cites a manual/remote switch as a basis for rejection prior to the amendments further buttresses this presumption. Furthermore, Dane's post-prosecution argument that its amendments were for clarity is without foundation in the record and is unpersuasive. Thus, it is presumed that Dane surrendered all equivalents of its invention that do not include a mode selector. The burden therefore rests with Dane to rebut this presumption.

#### **4. Dane unable to rebut the presumption**

When a presumption of prosecution history estoppel arises the “patentee bears the burden to rebut the presumptive application of prosecution history estoppel by establishing one of three exceptions by the preponderance of the evidence.” Integrated, 735 F.3d at 1356. This is accomplished by the patentee demonstrating that the equivalent was “unforeseeable at the time of the narrowing amendment, that the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent in question, or that there was some other reason suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent.” Festo, 344 F.3d at 1368 (quotations and citation omitted). The evidence to rebut the presumption must be found in the prosecution history. Festo, 344 F.3d at 1367 (“[W]e reinstate our earlier holding that a patentee's rebuttal of the Warner–Jenkinson presumption is restricted to the evidence in the prosecution history record.”).

Dane has cited to nothing in the record to rebut the application of prosecution history estoppel. Nor could it; the prosecution history is devoid of any evidence Dane can use to rebut

the presumption of estoppel. Since the Federal Circuit requires rebuttal evidence to be located in the prosecution history, Dane is unable as a matter of law to rebut the presumption. No reasonable fact finder could conclude that Dane's amendment was made for "clarity" or for some other reason not related to patentability. Dane is therefore estopped from arguing infringement by equivalence based on to the mode selector limitation.

## **ii. Argus speed controller**

Gatekeeper also argues it is entitled to summary judgment that its new "Argus" speed controller does not infringe because there is no mode selector. Dane argues that issuing a ruling on this product is premature because it does not accuse any products with the Argus speed board of infringing.

Dane does not directly accuse the Argus product of infringement. Dane's expert on infringement opines that a "hypothetical ARGUS-based version of the XD-I-B products would also infringe." Fernald Report at 29. However, in his claim charts, Dane's expert states, "Due to incomplete documentation concerning Gatekeeper's planned use of the ARGUS board, I am assuming this hypothetical product would be based on the accused CartManager XD design. . . ." Id. at 408 n.173.

Unlike Dane's other infringement contentions, the record of the Argus' infringement is based on assumption of a "hypothetical" product. The tables Dane's expert uses to identify which Gatekeeper products infringe which claims of Dane's patents does not include the Argus speed board. Thus, summary judgment of noninfringement for these products is premature.

## **c. Maintain Substantially Constant Speed**

The asserted claims require that "the speed of the vehicle tends to be maintained

substantially constant during the attachment and release of the one or more shopping carts or shopping cart trains coupled to the vehicle.” ’379 Patent 13:52–56 (emphasis added). The dispute here centers on the use of the word “or.” Gatekeeper argues that the claim uses the word conjunctively, in that the ’379 Patent covers only a cart retrieval vehicle that maintains a substantially constant speed during the attachment and release of one or more shopping carts and one or more shopping cart trains. Dane argues that “or” is used disjunctively, and therefore the claim limitation is met if the accused product maintains a substantially constant speed during the attachment and release of either one or more shopping carts or one or more shopping cart trains.

Gatekeeper cites Chavez v. Department of Health & Human Services, 103 F.3d 849, 852 (9th Cir. 1996), and Ameranth, Inc. v. Menusoft Systems Corp., No. 07-271, 2010 WL 1610079, at \*7 (E. D. Tx. April 21, 2010), for the proposition that “or” can be used conjunctively. These cases merely suggest that in some situations, “or” can be used conjunctively. However, “[t]he plain meaning of ‘or’ is disjunctive.” Van Wersch v. Dep’t of Health & Human Servs., 197 F.3d 1144, 1148 (Fed. Cir. 1999) (citing Webster’s Third New International Dictionary 1585 (1986)). “There simply is no way around the fact that, in the English language, the word ‘or’ unambiguously signifies alternatives.” Van Wersch, 197 F.3d at 1151.

Dane has produced evidence that the speed of Gatekeeper’s vehicles maintains substantially constant during the attachment and release of one shopping cart. Fernald Report at 99–103. Gatekeeper has not adduced evidence that would allow a reasonable juror to conclude that “or” could only be used conjunctively when interpreting this claim in the ’379 Patent. Gatekeeper is not entitled to summary judgment on this issue.

## **2. '836 and '979 Patents**

Gatekeeper's noninfringement arguments with respect to the '836 and '979 Patents address the controller's internal power limits. The '836 Patent recites an electric motor drive system that includes a first power limit and a second power limit. '836 Patent 8:25–34. The '979 Patent recites an electric motor drive system that includes a first power limit, a second power limit, a third power limit, and a burst limit. '836 Patent 8:22–49; 9:16–25.

During claim construction, “first power limit” and “second power limit” were given their plain and ordinary meanings. Dane Techs., Inc., 2014 WL 3420788, at \*7. For the term “second power limit,” Gatekeeper proffered a definition that required, among other things, the second power limit be distinct from the first power limit. Id. This definition was rejected because “the second power limit is clearly distinct from the first power limit, but this fact is self-evidence from the language of the claims.” Id.

### **a. First Power Limit**

Dane contends that the “first power limit” limitation—an element of its invention that limits the controller's maximum power output—is satisfied by the “boost current limit” in Gatekeeper's accused products. Gatekeeper counters that its products do not infringe this element because its “boost current limit” actively limits power and the claim construction orders establish that the first power limit of the '836 and '979 Patents do not.

When discussing construction of the claim term “Normal Power Limit,” the Court stated: “if the second and burst power limits are programmed into the controller and power is being limited, the second or burst limits are actively attenuating power. The first power limit does not limit the power output in any way.” Dane Techs., Inc., 2014 WL 5311430, at \*5. Gatekeeper's

argument that the first power limit never limits power is derived from a misreading of the claim construction order. First, Gatekeeper relies on language in support of its position that is not construing any claim term. Second, the cited passage merely refers to a scenario where a power limit other than the first power limit is actively limiting power, not a sweeping conclusion that the first power limit never limits power. Gatekeeper is not entitled to summary judgment on this issue.

**b. Normal Power Limit**

Dane's expert stated, and the patents recite, that the first power limit is also called the normal power limit. Fernald Report at 394. Gatekeeper argues that its "boost current limit" is not "normal" and, therefore, cannot be the claimed "first power limit." This assertion was presented and rejected during claim construction and stems from the semantics that "boost" signifies something temporary and it cannot be considered "normal."

As explained in an earlier claim construction order, "normal" does not necessarily mean most frequent. Dane Techs., Inc., 2014 WL 5311430, at \*5. Thus, contrary to Gatekeeper's argument, a reasonable juror could conclude that Gatekeeper's boost current limit is the normal power limit.

There is a genuine question of fact that must be resolved by a jury as to whether the boost current limit satisfies first power limit limitation.

**c. Burst Limit**

There is apparent confusion between the parties concerning which elements of claims are being asserted as infringing. As described above, Dane contends that the first power limit limitation is infringed by the boost current limit in Gatekeeper's products. However, Gatekeeper

argues that Dane asserted another claim element of infringing—a “burst limit”—and argues noninfringement as to that element based on language in a prior order from this court. However, the “burst limit” limitation is not being asserted.

Claim 4 of the '979 Patent recites three power limits: first, second, and third. '979 Patent 8:45–49. Claim 4 is asserted in Dane’s infringement contentions. However, at the hearing, Dane stated that it is only asserting the claims specifically identified in its expert reports. Dane’s expert reports do not assert Claim 4 or any other claim that recites three power limits. Claim 1 recites a burst mode; however, claim 1 does not recite a burst limit or a third power limit.

Dane’s expert concludes the accused products satisfy the claims without needing to find a third power limit or burst limit. Katzenellenbogen Decl. Ex. 17 at 43–44. As Dane correctly observed at the hearing, and as described above, the question is whether the accused boost current limit satisfies the first power limit. This question will be for the jury to decide.

### **C. Noninfringement as to Specific Products**

In Gatekeeper’s second motion, it argues that certain accused products do not infringe because they do not meet all of the claim limitations.

#### **1. Vehicles Using an i-Drive Controller with “Boost” Disabled**

Gatekeeper contends that since Dane’s expert only identified vehicles using the i-Drive controller with the “boost” enabled as infringing, vehicles with “boost” disabled are therefore noninfringing. Dane responds that Gatekeeper’s position is legally faulty. Since the claims are recited in functional language, Dane argues that infringement only requires that the accused products be reasonably capable of performing the claimed functions.

The PG Drives Technology’s i-Drive controllers have several functional parameters that can be adjusted using a tool called a “Programmer.” Suppl. Robbennolt Decl. Ex. 41 at 64; Fernald Decl. [Docket No. 354] ¶¶ 2, 3. The “boost” is one parameter that can be adjusted. Hannah Decl. [Docket No. 337] ¶¶ 4, 5.

Products configured in a non-infringing manner can still be held to infringe if they are “reasonably capable of satisfying the claim limitations.” Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1204 (Fed. Cir. 2010) (quoting Hilgraeve Corp. v. Symantec Corp., 265 F.3d 1336, 1343 (Fed. Cir. 2001)). The claims at issue in Finjan were system claims describing “capabilities,” such as “a logical engine for preventing execution” and “a communications engine for obtaining a Downloadable.” Finjan, 626 F.3d at 1204–05 (emphases in original). Since, for example, the logical engine was described as having the capability of preventing execution, a finding of infringement merely required the accused logical engine to be reasonably capable of “preventing execution.” Id. The Finjan court further explained that “[w]hile ‘a device does not infringe simply because it is possible to alter it in a way that would satisfy all the limitations of a patent claim,’ . . . an accused product ‘may be found to infringe if it is reasonably capable of satisfying the claim limitation.’” Versata Software, Inc. v. SAP Am., Inc., 717 F.3d 1255, 1262 (Fed. Cir. 2013) (quoting Finjan, 626 F.3d at 1204).

The asserted claims at issue are similar to the claims recited in Finjan. First, the claims at issue are functional claims describing capability. Second, Dane has presented evidence that the accused vehicles are shipped with software that is capable of being adjusted to make the vehicles infringing. Gatekeeper does not dispute this. Rather, Gatekeeper argues that it is entitled to summary judgment of noninfringement because the claimed infringing function cannot be

activated by a user without that user having to modify the product. Specifically, Gatekeeper argues that “a user” must be an end user that does not use third party assistance. Gatekeeper cites Silicon Graphics, Inc. v. ATI Technologies, Inc., 607 F.3d 784 (Fed. Cir. 2010), and Fantasy Sports Properties., Inc. v. Sportsline.com, Inc., 287 F.3d 1108, 1118 (Fed. Cir. 2002) in support of this proposition. In Silicon Graphics, the Federal Circuit recited its prior holding that “an apparatus claim directed to a computer that is claimed in functional terms is nonetheless infringed so long as the product is designed ‘in such a way as to enable a user of that [product] to utilize the function . . . without having to modify [the product].’” Id. at 794 (quoting Fantasy Sports, 287 F.3d at 1118). Gatekeeper seizes on this language to argue that its accused devices do not infringe because “a user” is unable to utilize the claimed function “without having to modify” the device.

Gatekeeper’s argument relies on an overly restrictive definition of the phrase “a user.” In Finjan, “a user” was able to “activate the functions programmed into a piece of software” by purchasing a “key to activate each individual module.” 626 F.3d at 1202, 1205. Thus, the “user” in Finjan who desired to activate modules in the accused device was unable to perform that task independently; the user needed outside assistance to enable the locked functions. The same is true here. A “user” of the Gatekeeper product can adjust the parameters by using a “programmer,” a computer component that can be purchased from the controller’s manufacturer that allows an individual to adjust the controller’s internal parameters. Suppl. Robbennolt Decl. Ex. 40 at 27; Ex. 41 at 63; Robbennolt Decl. [Docket No. 341] Ex. 22 at 27.

Finjan also undercuts Gatekeeper’s argument that the accused devices must be “modified” to operate in an infringing manner, stating that a user who purchases an activation

key is “only activating means that are already present in the underlying software.” Id. (quoting Fantasy Sports, 287 F.3d at 1118 (emphasis in original)). Dane cites to evidence that the accused devices are sold with software that is capable of operating the devices in an infringing manner. Hannah Decl. ¶¶ 4, 5. The record also reflects that the parameters governing operation of the accused devices can be adjusted without modifying the underlying code. See Fernald Decl. ¶¶ 3, 4 (explaining how adjusting the parameters of the controllers does not modify the underlying source code or firmware). This is akin to “activating the means that are already present in the underlying software.” Finjan, 626 F.3d at 1205. In sum, Dane has presented evidence that the accused devices are sold with the capability of being operated in an infringing manner. Because enabling a products’ inherent capability is not a modification, Gatekeeper’s argument fails.

The issue here is whether the vehicles using an i-Drive controller with the “boost” disabled are “reasonably capable of satisfying the claim limitation.” Id. at 1201 (quoting Hilgraeve Corp., 265 F.3d at 1343). This is a question of fact to be resolved by a jury.

Gatekeeper is not entitled to summary judgment on this issue.

## **2. Curtis 1237 Controller**

Gatekeeper argues that its vehicles using a Curtis 1237 controller do not infringe because Dane has not presented evidence that the vehicles satisfy the ‘379 Patent’s “speed regulating circuit” limitation. Gatekeeper argues that because the IR speed coefficient in the controller is set to zero, the controllers do not satisfy this claim limitation. Dane argues that it has raised a genuine question of fact as to whether the Curtis 1237 controllers have always had their IR speed coefficient value set at zero. Further, Dane maintains that the controllers satisfy the claim

limitation even if the IR speed coefficient value is zero. Finally, Dane repeats its “capability” argument discussed above, that because the Curtis 1237 controller is capable of being placed into an infringing mode of operation, it infringes.

Dane’s expert opined that “[t]he speed regulating circuit causes the drive signal to change based on the target speed value and the present speed signal such that the present speed signal will be close to or equal to the target speed value.” Fernald Report at 17. Dane’s expert further opined that Gatekeeper’s “CartManager XD uses ‘IR compensation’ to cause the drive signal to change based on the target speed value and the present speed signal such that the present speed signal will be close to or equal to the target speed value.” Id. at 101. According to Dane’s expert, the CartManager XD implements IR compensation because its “‘IR speed coefficient’ is not equal to 0.” Id. Dane’s expert recognized, however, that “‘The IR speed coefficient is adjustable down to 0, with 0 equaling no IR compensation.’” Id. The manual for the Curtis controller verifies the coefficients adjustability. Id. Ex. 40 at 44.

Gatekeeper does not contest Dane’s expert’s conclusion that CartManager XD vehicles with IR speed coefficients above zero satisfy this claim limitation. Therefore, for the reasons set forth above with respect to the controllers with “boost” disabled, Gatekeeper is not entitled to summary judgment. A factual question exists as to whether a user is reasonably capable of adjusting the IR speed coefficient.

#### **D. Limitation on Damages**

Gatekeeper argues that Dane is not entitled to an award of lost profits because acceptable noninfringing alternatives existed during the alleged infringement period. Gatekeeper also argues that Dane has not presented any evidence of reasonable royalty damages and should

therefore be precluded from presenting such testimony at trial. Dane responds that because the parties comprise a two-supplier market, evidence of noninfringing alternatives is unnecessary for determining lost profits. As for reasonable royalty damages, Dane argues that the evidence of reasonable royalty damages is presentable to the jury if it is not entitled to a lost profits award.

### **1. Lost Profits**

“To recover for lost profits a patentee must show that ‘but for’ infringement it reasonably would have made the additional profits enjoyed by the infringer.” Micro Chem., Inc. v. Lextron, Inc., 318 F.3d 1119, 1122 (Fed. Cir. 2003). But for causation can be shown by satisfying either the Panduit or the two-supplier market test. Id. The Panduit test requires a showing of “(1) demand for the patented product, (2) absence of acceptable noninfringing substitutes, (3) manufacturing and marketing capability to exploit the demand, and (4) the amount of profit that would have been made.” DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 567 F.3d 1314, 1329 (Fed. Cir. 2009) (citing Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1156 (6th Cir. 1978)). Under the two-supplier test, a patentee must show that: “1) the relevant market contains only two suppliers, 2) its own manufacturing and marketing capability to make the sales that were diverted to the infringer, and 3) the amount of profit it would have made from these diverted sales.” Micro Chem., 318 F.3d at 1124. “If the patentee shows two suppliers in the relevant market, capability to make the diverted sales, and its profit margin, that showing erects a presumption of ‘but for’ causation.” Id. at 1125. That presumption can be rebutted by the infringer “by showing that it sold another available, noninfringing substitute in the relevant market.” Id.

The Panduit test clearly considers the presence and availability of noninfringing

alternatives in the lost profit analysis. Id. Dane argues that it is entitled to a lost profit award under the two-supplier market test regardless of any noninfringing alternatives. Although Gatekeeper does not dispute that it operates in a two-supplier market with Dane, it challenges Dane's position that noninfringing alternatives are not relevant in a two-supplier market. Gatekeeper argues that because its CartManager XD products using the Curtis 1237 controller and its CartManager XD products using the i-Drive controller with the boost disabled are noninfringing alternatives, Gatekeeper is entitled to a determination that Dane is not entitled to lost profits as a matter of law.

In Integrated Technology Corp. v. Rudolph Technologies, Inc., the Federal Circuit found that "substantial evidence supported the jury's general verdict award of lost profits for literal infringement" because "[the patentee] proffered a two-supplier theory of lost profits that was independent of the existence of noninfringing alternatives" and "[t]he jury could have relied on the two-supplier theory. . . ." 734 F.3d 1352, 1360 (Fed. Cir. 2013) (citing State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1578 (Fed. Cir. 1989) ("In the two-supplier market, it is reasonable to assume, provided the patent owner has the manufacturing and marketing capabilities, that it would have made the infringer's sales.")). However, in Micro Chemical, the Federal Circuit stated:

[an] infringer may rebut the presumption [of lost profits in a two-supplier market] by showing that it sold another available, noninfringing substitute in the relevant market. This situation would arise only where there are two suppliers in the market, but the infringing supplier had two available alternatives: one infringing and the other noninfringing. In that situation, even absent the infringement, customers may have selected the infringer's available, noninfringing alternative over the patented invention.

318 F.3d at 1125.

The statement in Integrated relied on by Dane could be read to suggest that noninfringing alternatives need not be considered in a two-supplier market is ambiguous when compared to the clear holding in Micro Chemical. The only opinion that cites Integrated for this proposition is Cheese Systems, Inc. v. Tetra Pak Cheese & Powder Systems, Inc., No. 2014 WL 976877, at \*2 (W. D. Wisc. Mar. 12, 2014). That case, however, fails to reference Micro Chemical nor offer any analysis why but for causation in a two-supplier market need not consider noninfringing alternatives offered by the accused. If the Federal Circuit was going to reverse course and abrogate Micro Chem's clear recognition of noninfringing alternatives of the accused in a two-supplier market, it is doubtful that the ambiguous passage in Integrated would serve this purpose. Moreover, Micro Chemical's concern for noninfringing alternatives is logically sound. If an award of lost profits requires but for causation—if the infringer was unable to sell its infringing product than the patentee would have sold its patented product—then the ability of the accused to sell an acceptable and available noninfringing alternative casts doubt on but for causation. Thus, any acceptable and available noninfringing alternatives of Gatekeeper are relevant to Dane's entitlement to lost profits.

Nevertheless, Gatekeeper is not entitled to summary judgment because it is unknown whether Gatekeeper's noninfringing alternatives are in fact noninfringing. Because the jury must decide if Gatekeeper's CartManager XD products using the Curtis 1237 controller and its CartManager XD products using the i-Drive controller with the boost disabled infringe, summary judgment is not warranted.

## **2. Reasonable Royalty**

Gatekeeper also argues Dane is not entitled to a reasonable royalty award because it has

failed to present any evidence of what that reasonable royalty would be. A reasonable royalty, however, is the floor of recovery for a patentee who succeeds on an infringement action. Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009). Furthermore, reasonable royalty evidence is found in the record, including a discussion of the Georgia-Pacific<sup>3</sup> factors that have been expressly sanctioned by the Federal Circuit. Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1317 (Fed. Cir. 2011); Robbenolt Decl. Ex. 22 at 25–36. Gatekeeper is thus not entitled to summary judgment on this issue.

### **E. Willful Infringement**

The parties disagree on when an accused infringer must develop its noninfringement position to negate a finding of willful infringement. Gatekeeper asserts that its noninfringement arguments developed during litigation are objectively reasonable, and thus preclude a finding of willful infringement. Dane responds that to defeat a finding of willful infringement, Gatekeeper was required to have reasonable noninfringement arguments prior to litigation, specifically at the time of first infringement.

A finding of willful infringement allows an award of enhanced damages under 35 U.S.C. § 284. A showing of recklessness is required before enhanced damages are allowed. Bard Peripheral Vascular, Inc. v. W.L. Gore & Assoc., Inc., 682 F.3d 1003, 1007 (Fed. Cir. 2012). Establishing willful infringement of a valid patent requires satisfying a two-pronged test. First, “a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” In re Seagate Tech., LLC, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc) (citing Safeco Ins. Co. of

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<sup>3</sup> Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970).

Am. v. Burr, 127 S.Ct. 2201, 2215 (2007)). This first prong is a question of law. Bard, 682 F.3d at 1007. “The state of mind of the accused infringer is not relevant to this objective inquiry.” Seagate 497 F.3d at 1371. Second, if the “threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.” Id. This subjective prong is only submitted to a jury if the patentee can first satisfy the initial objective prong. Powell v. Home Depot U.S.A., Inc., 663 F.3d 1221, 1236 (Fed. Cir. 2011) (citing DePuy Spine Inc., 567 F.3d at 1335–37).

A court’s analysis of objective recklessness “entails an objective assessment of potential defenses based on the risk presented by the patent.” Bard, 682 F.3d at 1007. Contrary to Dane’s argument, this assessment includes “all of the infringer’s non-infringement and invalidity defenses, even if those defenses were developed for litigation.” Glob. Traffic Tech. LLC v. Morgan, — Fed. Appx. —, —, Nos. 14–1537, 14–1566, 2015 WL 3513416, at \*7 (Fed. Cir. June 4, 2015); See also Halo Elecs., Inc. v. Pulse Elecs., Inc., 769 F.3d 1371, 1382 (Fed. Cir. 2014) (affirming the consideration of arguments developed during litigation in determining objective risk of infringement); Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd., No. 14–1492, 2015 WL 4639309, at \*12 (Fed. Cir. Aug. 4, 2015) (“[T]he first requirement is not met when the infringer . . . presents in the litigation a defense . . . that is objectively reasonable”).

Gatekeeper has presented several defenses to infringement that are objectively reasonable as a matter of law. Gatekeeper’s positions during claim construction, although not all were accepted, were objectively reasonable. Moreover, Gatekeeper’s arguments surrounding the “mode selector” limitation are objectively reasonable and were even identified by Dane before

this suit was filed as a component that was not found in the accused device. Katzenellenbogen Decl. Ex. 29 at 13. Finally, Gatekeeper conducted a due diligence investigation before purchasing DJ Products Inc.'s ("DJ Products") cart retriever product line. This included an infringement evaluation of the '379 Patent. Rather than showing recklessness, Gatekeeper's conduct evidences the opposite, that it engaged in a suitable investigation to determine whether or not its intended acquisition infringed Dane's patent rights. Thus, Gatekeeper is entitled to summary judgment on Dane's claim of willful infringement.<sup>4</sup>

#### **F. Laches and Equitable Estoppel**

Gatekeeper argues that because Dane knew of Gatekeeper's alleged infringement for over six years before filing suit, equity limits Dane's scope of recovery. The primary thrust of Dane's response is that Gatekeeper's claims of material prejudice are illusory because any change in Gatekeeper's economic position was a calculated business decision made independent of Dane's failure to bring suit.

Gatekeeper's entrance into the shopping cart retriever market began in 2005 when it purchased DJ Products' CartCaddy line of cart retrieval products. Lawler Decl. [Docket No. 49] ¶ 2. In making the purchase, Gatekeeper conducted due diligence, which uncovered a June 3, 2005 letter from Dane Industries (now Dane) informing DJ Products about the '379 Patent and an additional patent. *Id.* ¶ 5; Ex. 7. The letter was informative in tone; it did not take the

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<sup>4</sup> The parties also dispute, on independent grounds, whether or not willful infringement can be found when the patentee neglects to seek a preliminary injunction. The parties' differing positions are based on opposing interpretations of *Seagate*. 497 F.3d 1360. However, since the determination that Gatekeeper presented objectively reasonable defenses to infringement is resolved in favor of Gatekeeper, this issue is not reached here.

position that DJ Products' cart retrievers were infringing. See id. Ex. 7. Gatekeeper did not discover any further correspondence from Dane discussing its patents. Gatekeeper completed its purchase of the DJ Products' cart retriever business on November 1, 2005. Id. ¶¶ 6, 7. As part of the purchase agreement, DJ Products agreed to indemnify Gatekeeper against any lawsuit filed by Dane through November 2008.

In January 2006, Gatekeeper received a letter from Dane again identifying the '379 Patent and one other patent. Id. Ex. 8. This letter stated "Gatekeeper apparently is offering to sell or selling shopping cart collection products that may have one or more features similar to those claimed in the . . . '379 Patent[]." Id. Almost a year and a half later, in July 2007, Dane once again wrote Gatekeeper. Id. Ex. 9. This correspondence stated:

[T]he Federal Circuit has construed the patent in a manner that we believe may cover your CartManager product. . . . If you are in violation of the '379 Patent, please cease and desist from offering to sell or selling your infringing cart retrieval products. However, if you believe that your products are not covered by the '379 Patent, please provide us a detailed explanation of your reasons for that belief.

Id. Further correspondence occurred between Dane and Gatekeeper between September and October 2007, with the last inquiry being from Gatekeeper asking Dane to provide explicit reasons why the '379 Patent covers Gatekeeper's products. Id. Exs. 10–13.

### **1. Laches**

Gatekeeper argues that because Dane's silence was greater than six years, the presumption of laches applies. Gatekeeper also contends that Dane has failed to rebut the presumption of laches because Gatekeeper has suffered material economic prejudice. Dane responds that the presumption should not apply because the delay is less than six years. Dane also argues that Gatekeeper has failed to demonstrate the required nexus element of material

prejudice occasioned by Dane's delay in filing suit.

Laches is “an equitable defense to a claim for patent infringement.” A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1028 (Fed. Cir. 1992). “In a legal context, laches may be defined as the neglect or delay in bringing suit to remedy an alleged wrong, which taken together with lapse of time and other circumstances, causes prejudice to the adverse party and operates as an equitable bar.” Id. at 1028–29. The Court weighs “the length of delay, the seriousness of prejudice, the reasonableness of excuses, and the defendant's conduct or culpability.” Id. at 1034. “The period of delay is measured from the time the plaintiff knew or reasonably should have known of the defendant's alleged infringing activities to the date of suit.” Id. at 1032. “A delay of more than six years raises a presumption that it is unreasonable, inexcusable, and prejudicial.” Wanlass v. Gen. Elec. Co., 148 F.3d 1334, 1337 (Fed. Cir. 1998). If laches is established, damages prior to suit may be barred. Aukerman, 960 F.2d at 1028.

#### **a. Presumption of Laches**

Gatekeeper has presented evidence that Dane was aware its '379 Patent may have covered Gatekeeper products prior to October 2006—six years before it filed suit, in October 2012. Dane attempts to sidestep the laches presumption by arguing that material differences exist between the Gatekeeper products that are the subject of this lawsuit and the products that were the subject of the letters Dane sent to Gatekeeper and Gatekeeper's predecessor-in-interest prior to October 2006. If Dane's argument is credited, the laches delay period would not start until 2008, rather than before October 2006. Dane argues that it is Gatekeeper's burden to present evidence that material differences do not exist.

In Everspin v. NVE, 12-472, 2014 WL 988458, at \*7 (D. Minn. Mar. 13, 2014), the

patentee was also trying to challenge the applicability of the presumption of laches because the accused had altered the nature of its infringing activities. Id. at \*7. In rejecting the patentee’s argument, this Court stated that “the burden is not on [the defendant] to prove that its products were materially the same.” Id. The reasoning in Everspin for placing the burden on the patentee makes practical sense because patentees have the burden of policing the unauthorized use of their legally protected interest. “Allocating the burden to patentees to seek out infringers is proper, furthermore, because compared to potential infringers, they are in the best position to know the scope of their patent protection and, therefore, also to know likely places to find infringement.” Wanlass, 148 F.3d at 1339. Dane’s “policing” burden here is not unreasonable because the shopping cart retriever market is primarily limited to the two parties involved here. Dane has an affirmative obligation to investigate Gatekeeper and stay apprised of Gatekeeper’s cart retriever developments.<sup>5</sup> See id. (providing examples of “pervasive, open, and notorious activities” that suggest infringement). Gatekeeper has presented sufficient evidence evincing Dane’s actual or constructive knowledge of Gatekeeper’s infringing activities prior to October 2006. The burden is thus placed on Dane to produce evidence that material differences exist between Gatekeeper’s products prior to October 2006 and the Gatekeeper products it alleges infringe the ’379 Patent in the Amended Complaint.

Dane has failed to carry this burden. Dane does not substantively address the specific reasons why the sets of products before and after 2008 are materially different. Based on the summary judgment record, the minor differences Dane identifies are insufficient to carry its

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<sup>5</sup> There is record evidence that Dane did investigate Gatekeeper’s products. See Zovko Decl. [Docket No. 346] Ex. I at 226:4–229:15 (investigating a Gatekeeper manufacturing facility); 239:10–240:21 (telephoning Gatekeeper to ask about pricing).

burden. Therefore, the presumption of laches applies with respect to the '379 Patent.<sup>6</sup>

### **b. Rebuttal of Laches Presumption**

“A patentee can rebut the presumption of laches ‘by offering evidence to show an excuse for the delay or that the delay was reasonable’ or by offering evidence ‘sufficient to place the matters of [evidentiary] prejudice and economic prejudice genuinely in issue.’” Serdarevic v. Advanced Medical Optics, Inc., 532 F.3d 1352, 1359–60 (Fed. Cir. 2008) (quoting Aukerman, 960 F.2d at 1038). “By raising a genuine issue respecting either factual element of a laches defense, the presumption of laches is overcome.” Aukerman, 960 F.2d at 1038. Therefore, to rebut the laches defense, Dane needs to either show its delay was reasonable or that Gatekeeper has not suffered material prejudice as a result of its delay. Serdarevic, 532 F.3d at 1360.

### **i. Delay**

Dane argues that its delay in bringing suit to protect the '379 Patent was reasonable because it did not have sufficient knowledge to establish that Gatekeeper's products possessed patented characteristics until much later. This argument fails. “The period of delay begins at the time [Dane] had actual or constructive knowledge of [Gatekeeper's] infringing activities.” Itron, Inc. v. Benghiat, No. 99-501, 2003 WL 21402608, at \*3 (D. Minn. June 16, 2003). Although Dane's January 2006 letter to Gatekeeper did not explicitly accuse Gatekeeper of infringing the '379 Patent, Dane's CEO, however, has testified Gatekeeper was infringing in 2006. See Johnson Decl. [Docket No. 22] ¶ 14 (“We initially notified Gatekeeper that it was infringing our U.S. Patent No. 6,220,379 [ ] in January 2006.”). Dane cannot reasonably claim both that it did

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<sup>6</sup> The presumption of laches does not apply to the Gatekeeper products accused of infringing the '836 and '979 Patents because these patents did not issue until June 24, 2008 and February 24, 2009, respectively, which is less than six years before this lawsuit was filed.

not have sufficient knowledge in 2006 to establish that Gatekeeper's products possessed patented characteristics while at the same time accusing Gatekeeper of infringing the '379 Patent.

Dane also argues that financial constraints delayed its filing this infringement suit. While poverty alone is never an excuse for laches purposes, when coupled with other valid reasons, financial concerns can be considered as justification for delay in filing suit. Itron, 2003 WL 21402608, at \*5. Having failed to provide a reason justifying its delay, Dane's financial position cannot excuse its delay in filing suit.<sup>7</sup>

## **ii. Material Prejudice**

Gatekeeper argues that it suffered material prejudice as a result of Dane's failure to timely sue because Dane's delay prevented the application of the indemnification period it negotiated with its predecessor in interest as part of its acquisition.<sup>8</sup> Gatekeeper contends that if Dane had timely filed its suit, the indemnification provision would have kicked in and spared Gatekeeper from incurring the significant legal expense of defending this case. Dane responds that Gatekeeper's demonstration of prejudice fails because Gatekeeper cannot draw a nexus between Dane's delay and the resulting prejudice. Dane also claims that it is disputed whether the indemnification clause would have applied to the defense of an earlier lawsuit.

Material prejudice may be classified as economic or evidentiary. Relevant here is

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<sup>7</sup> Dane filed suit 18 months after learning about the Gatekeeper products it now accuses of infringing the '836 and the '979 Patents. Because this delay is not unreasonable, Gatekeeper is not entitled to summary judgment based on laches on these two patents.

<sup>8</sup> Gatekeeper also argues that it suffered material prejudice for two additional reasons: monetary and personnel investment into its cart retriever business and the inability to pursue "design arounds" that would not violate Dane's patents. Since Gatekeeper's claim of prejudice resulting from the indemnification clause resolves this motion in its favor, discussion of the other two sources of prejudice is unnecessary.

economic prejudice, which “may arise where a defendant and possibly others will suffer the loss of monetary investments or incur damages which likely would have been prevented by earlier suit.” Aukerman, 960 F.2d at 1033. A mere change in Gatekeeper’s economic position is insufficient to show prejudice. Hemstreet v. Comput. Entry Sys. Corp., 972 F.2d 1290, 1294 (Fed. Cir. 1992). Rather, economic prejudice requires an explicitly proven nexus to the patentee’s delay in filing suit. Id.

No reasonable fact finder could conclude that Gatekeeper’s economic prejudice lacks a nexus to Dane’s delay in filing suit. When Gatekeeper purchased DJ Products’ shopping cart retrieval business on November 1, 2005, the purchase agreement provided that DJ Products would indemnify Gatekeeper until November 1, 2008. Katzenellenbogen Decl. Ex. 21 at GATEKEEPER00013388. Thus, if Dane had filed suit prior to November 1, 2008, Gatekeeper would have had the opportunity to pursue indemnification. Gatekeeper’s inability to pursue indemnification was caused by Dane’s lawsuit not being initiated until after DJ Products’ duty to indemnify Gatekeeper had expired.

Dane attempts to discredit Gatekeeper’s prejudice by challenging the applicability of the indemnification clause. Dane argues that because Gatekeeper made changes to the products it purchased from DJ Products, the indemnification clause would not have applied even if Dane filed suit earlier. Dane relies on language of the indemnification clause, which states: “if [Gatekeeper] or its Affiliates have modified the design of the Products from the original designs . . . then [DJ Products] shall not be required to indemnify, defend and hold harmless.” Katzenellenbogen Decl. Ex. 21. As additional support, Dane cites to a letter from DJ Products’s counsel discussing the indemnification clause. Suppl. Robbennolt Decl. Ex. 61. Dane argues

this letter substantiates the provision's inapplicability and negates Gatekeeper's claim of economic prejudice.

Dane's argument misses the mark. First, the record does not definitively show that if Dane filed suit prior to November 1, 2008, that Gatekeeper's products would have been excluded under the provision. Far from denying any applicability of the indemnification clause, the response from DJ Products' attorney was that Gatekeeper's "current demands for indemnification appear premature at this time." Robbennolt Decl. Ex. 19. Rather than expressly denying coverage due to any modifications from Gatekeeper, the letter simply informs Gatekeeper that DJ Products does not have any duty to indemnify for any modifications Gatekeeper performed. *Id.* In a later letter sent on October 1, 2007, DJ Products again denied that a "claim" has arisen. Suppl. Robbennolt Decl. Ex. 61. While the October 1 letter does claim that Gatekeeper redesigned the product that DJ Products sold to Gatekeeper, the letter does not prove the clause's inapplicability. If Dane sued earlier, Gatekeeper would have been able to challenge DJ Products' position and seek indemnification. Dane's delay, however, stripped Gatekeeper of its ability to contest the applicability of the indemnification clause. Dane's argument ignores the prejudicial impact its dilatory lawsuit has on Gatekeeper's ability to pursue indemnification. Gatekeeper was materially prejudiced by its loss of ability to pursue indemnification.

### **iii. Gatekeeper's conduct or culpability**

The final step in the laches analysis is evaluating Gatekeeper's conduct or culpability. Aukerman, 960 F.2d at 1034. The record does not include any conduct by Gatekeeper that could be viewed by a reasonable fact finder as culpable. To the contrary, Gatekeeper did not remain

silent when it received Dane's letters but rather challenged Dane to identify which claims Dane believed Gatekeeper infringed.

### **c. Conclusion**

Dane waited over six years before filing this lawsuit against Gatekeeper; thus, the presumption of laches applies. Dane has not carried its burden of demonstrating Gatekeeper's products were materially changed in 2008. Dane's justifications for its delay were not sufficiently reasonable to rebut the presumption because Gatekeeper suffered material economic prejudice as a result of Dane's delay. See Hemstreet, 972 F.2d at 1294. After considering "all the pertinent facts and equities" relevant to this dispute, Gatekeeper is entitled to summary judgment on its laches defense with respect to the '379 Patent. Aukerman, 960 F.2d at 1034. Gatekeeper is not entitled to summary judgment on laches with respect to the '836 and '979 Patents.

## **2. Equitable Estoppel**

Similar to laches, equitable estoppel is a defense grounded in equity. A valid claim of equitable estoppel has three elements. First, the conduct of the patentee must be misleading and give rise to the necessary inference that the claim against the defendant is abandoned.

Aukerman, 960 F.2d at 1042. Second, the accused infringer must show that it "substantially relied on the misleading conduct of the patentee in connection with taking some action." Id. at 1042–43. Finally, the accused infringer must demonstrate material prejudice. Id. at 1043.

### **a. Misleading Conduct**

"Misleading conduct may include specific statements, action, inaction, or silence when there was an obligation to speak." Aspex Eyewear Inc. v. Clariti Eyewear, Inc., 605 F.3d 1305,

1310 (Fed. Cir. 2010). Misleading silence arises when a patentee “threatened immediate or vigorous enforcement of its patent rights but then did nothing for an unreasonably long time.” Meyers v. Asics Corp., 974 F.2d 1304 (Fed. Cir. 1992) (quoting Meyers v. Brooks Shoe, Inc., 912 F.2d 1459, 1464 (Fed. Cir. 1990)). Vigorous threats of patent infringement followed by silence is not the sole way to demonstrating the patentee’s conduct was misleading. Inaction, “combined with other facts respecting the relationship or contacts between the parties” may “give rise to the necessary inference that the claim against the defendant is abandoned.” Aukerman, 960 F.2d at 1042.

Gatekeeper asserts its correspondences with Dane created an obligation for Dane to speak in response to its inquiries about infringement. Gatekeeper’s argument on this point is somewhat undermined, however, by its assertion that “**Dane never accused Gatekeeper of infringement.**” Fifth Mot. Summ. J. [Docket No. 327] 1 (bolding in original). This admission by Gatekeeper does not end the inquiry because the substance of the correspondence between the parties may create a threat of suit for infringement even if a patentee does not explicitly allege infringement of a specific patent. Aspex Eyewear, 605 F.3d at 1311.

The cases Gatekeeper relies upon for this argument have markedly different conduct by the patentee than what occurred here. For example, in Arctic Cat, Inc. v. Injection Research Specialists, Inc., 362 F. Supp. 2d 1113, 1122–23 (D. Minn. 2005), the patentee wrote the accused that it intended to file an infringement suit “no later” than the conclusion of a different lawsuit the patentee was involved in with a third party. After judgment in that other lawsuit was affirmed on appeal in 1998, the patentee waited until 2001 before filing suit. Id. Additionally, other evidence “bolstered the inference” that the patentee had abandoned its claims, such as a

covenant not to sue the alleged infringer. Id. at 1223. Similarly, in Wafer Shave, Inc. v. Gillette Co., 857 F. Supp. 112, 116–118 (D. Mass. 1993), counsel for the patentee corresponded with the defendant’s counsel regarding infringement. The letters explicitly stated that plaintiff’s patent was being infringed and demanded that the defendant cease and desist making, using, or selling the technology at issue. Id. at 117. An early letter also concluded by stating that if the defendant did not provide a suitable response with its noninfringement position, “we will initiate the appropriate action.” Id. at 117. In response, the defendant provided a “detailed explanation distinguishing the two products,” to which the patentee did not respond. Id.

Even if Dane’s letters are construed as threats of infringement, they fall short of being the “prompt and vigorous” enforcement threats generally needed for a patentee’s silence to be considered misleading. Id. at 119. The most threatening language by Dane was in its July 6, 2007 and October 15, 2007 letters. The July 6 letter states, “[i]f you are in violation of the ’379 Patent, please cease and desist from offering to sell or selling your infringing cart retrieval products.” Lawler Decl. Ex. 9. The October 15 letter states, “[t]hus, your client has had ample time to develop its defenses, if it has any.” Id. Ex. 12. Unlike the letters discussed in the cases Gatekeeper cites, Dane’s letters never identified a date or a range of dates an infringement suit would be brought, nor did the letters mention that Dane would “take action.” Moreover, the July 6 letter states Gatekeeper should stop selling its products “if” it is violating the ’379 Patent, which, by its hypothetical tone, lacks the immediacy of consequence displayed in the correspondence in the Arctic Cat and Wafer Shave cases.

The record also lacks evidentiary support for a reasonable fact finder to conclude that Dane’s inaction “combined with other facts” gives rise to the necessary inference that Dane

abandoned its claim against Gatekeeper. In ABB Robotics, the court found “other facts” including the infringer’s knowledge that the patentee “was not active in the area of the [ ] patent and was therefore not losing sales or profits as a result of the alleged infringement” and licensing negotiations related to other patents. ABB Robotics, Inc. v. GMFanuc Robotics Corp., 52 F.3d 1062 (Fed. Cir. 1995). These factors are plainly not found here. The record reflects fierce competition between these parties. Dane’s admitted primary, perhaps exclusive, competitor is Gatekeeper. Dane and Gatekeeper have repeatedly vied to earn exclusive shopping cart retriever contracts with business such as Target and Wal-Mart. Finally, there is no record of any negotiations between Dane and Gatekeeper that could support Gatekeeper’s wishful notion that Dane had abandoned its infringement claims. For these reasons, a reasonable fact finder could not conclude Dane’s silence misled Gatekeeper to conclude Dane would not pursue its infringement claims.

**b. Substantial Reliance**

Even if Gatekeeper was able to successfully demonstrate Dane’s silence was misleading, Gatekeeper’s equitable estoppel argument fails because it cannot show the requisite substantial reliance. To meet this requirement, Gatekeeper must show that “it substantially relied on the misleading conduct of the patentee in connection with taking some action.” Aukerman, 960 F.2d at 1042–43. Dane argues that Gatekeeper’s reliance was not based on Dane’s silence but was rather due to its belief that its products did not infringe.

Gatekeeper again relies on Wafer Shave, Inc. v. Gillette Co. In Wafer Shave, similar to what occurred here, the defendant invested significantly into a business dependent upon a patent discussed in earlier correspondences with a patentee. Id. at 117. Contrary to the record here, in

Wafer Shave, there was significant evidence substantiating the defendant's assertion that its investments were in reliance on the patentee's silence. First, the defendant had evidence of multiple Annual Reporting Forms from its patent counsel that stated the alleged infringement "[m]atter has been closed." Id. at 122. An entry regarding the patent matter in the "Legal Department Objectives" report prepared for the Chairman of the Board of Directors was struck and the legal department head testified that he believed the matter had been closed. Id. Finally, while the exact timing of the last communication and the defendant's initial investment is unclear, the majority of the investment occurred nearly two years after the last correspondence from the patentee. Id. at 117.

In the present case, the record regarding Gatekeeper's understanding that Dane had abandoned its infringement claim is sparse. The sole support of Dane's theory of abandonment of the patent is based on the bald assertions of its Chairman and former Chief Executive Officer, who stated that "it did not appear to me that Dane intended to enforce the '379 patent," and that Gatekeeper's investments in its cart retrieval business were made "in reliance on Dane's silence during the 18-month period from January 2006 until July 2007." Lawler Decl. ¶¶ 6, 14. However, the record belies these statements. On January 17, 2006, two days after leasing a facility in Texas, Gatekeeper received a letter from Dane regarding the '379 Patent which stated "Gatekeeper apparently is offering to sell or selling shopping cart collection products that may have one or more features similar to those claimed in" the '379 Patent. Id. ¶ 9. After receiving this letter, Gatekeeper conducted its second investigation into Dane's '379 Patent and its application to Gatekeeper's products. Id. ¶ 10. The investigation concluded with another determination—the first was obtained at the time Gatekeeper purchased the cart retriever

business from DJ Products—that Gatekeeper’s products did not infringe the ’379 Patent. Id. Immediately thereafter, Gatekeeper invested both money and personnel into its cart retrieval business. Id. ¶ 13. Although the exact dates of Gatekeeper’s financial and personnel investments are not precisely reflected in the record, Gatekeeper maintains that it made these investments in January 2006. Id. Thus, Gatekeeper’s investments began sometime less than 14 days after receiving Dane’s letter. Since the record is silent as to any evidence that Gatekeeper delayed its investment after receiving Dane’s January 17 letter, the inescapable conclusion is that Gatekeeper’s investment was motivated by factors other than Dane’s silence about potential infringement. On this record, a reasonable juror could not conclude that Gatekeeper substantially relied on Dane’s silence when investing in its shopping cart retriever business.

### **c. Prejudice**

The prejudice analysis for equitable estoppel mirrors that of laches. Arctic Cat, Inc. v. Injection Research, Inc., 362 F. Supp. 2d 1113, 1126 (D. Minn. 2005). Gatekeeper’s prejudice, however, does not save its equitable estoppel defense because it failed to show that Dane’s conduct was misleading and that Gatekeeper relied substantially on Dane’s misleading conduct.

## **G. Dane’s Summary Judgment Motion**

Dane also moves for summary judgment on Gatekeeper’s equitable defenses, the availability of a lost profits award, and Gatekeeper’s derivation defense.

### **1. Equitable Defenses**

#### **a. Laches**

Dane seeks summary judgment on Gatekeeper’s laches defense. As concluded above, however, Gatekeeper has successfully demonstrated that, as to the ’379 Patent, laches applies.

Thus, that portion of Dane's laches argument fails.

As also explained above, laches requires that there be an unreasonable and unexcused delay in bringing suit and material prejudice as a result of the delay. Aukerman, 906 F.2d at 1028. The products Dane accuses of infringing the '836 and '979 Patents were not released until April 2011, or 18 months before this lawsuit was filed. Eighteen months is insufficient delay to sustain a laches defense. Therefore, Dane is entitled to summary judgment denying the defense of laches with respect to the '836 and '979 Patents.

**b. Equitable Estoppel**

Gatekeeper's motion for summary judgment on equitable estoppel failed because Dane's silence was not misleading. Dane is therefore entitled to summary judgment on this issue.

**c. Acquiescence**

Gatekeeper has pled the affirmative and equitable defense of acquiescence. "Acquiescence may bar an infringement suit when 'the owner of the [patent], by conveying to the defendant through affirmative word or deed, expressly or impliedly consents to the infringement.'" Masters v. UHS Delaware, Inc., 631 F.3d 464, 469 (8th Cir. 2011) (quoting 3M Co. v. Intertape Polymer Grp., Inc., 423 F. Supp. 2d 958, 965 (D. Minn. 2006)). There is no evidence of record of any express or implied affirmation from Dane consenting to Gatekeeper's alleged infringement. Dane is entitled to summary judgment on this equitable defense.

**d. Waiver**

Gatekeeper also pleads the affirmative defense of waiver. Sustaining an implied waiver defense requires the accused to "show by clear and convincing evidence that '[the patentee's] conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief

that such right has been relinquished.” Hynix Semiconductor Inc. v. Rambus Inc., 645 F.3d 1336, 1348 (Fed. Cir. 2011) (quoting Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1020 (Fed. Cir. 2008)). There is no genuine dispute on the applicability of this defense. No reasonable juror could conclude that Dane’s conduct was so inconsistent that it was reasonable to believe it had relinquished its enforcement rights.

## **2. Lost Profits**

Dane is not entitled to summary judgment on its lost profits argument. There are contested facts disputing whether Gatekeeper had available, acceptable noninfringing alternatives. Since the availability of acceptable noninfringing alternatives thwarts the “but for” causation Dane must show to be awarded lost profits, summary judgment on awarding lost profits is denied.

## **3. Validity**

Gatekeeper alleges that the asserted claims of the ’836 and ’979 Patents are invalid under 35 U.S.C. § 102(f) because the named inventors of the ’836 and ’979 Patents derived, rather than invented, the subject matter of the claims. Dane argues that it is entitled to summary judgment on this issue because no reasonable juror could conclude that someone conceived of the claimed invention and communicated that complete conception to the named inventors before the effective filing date of the ’836 and ’979 Patents.

To establish derivation, Gatekeeper is required to “prove both prior conception of the invention by another and communication of that conception to the patentee.” Creative Compounds, LLC v. Starmark Labs., 651 F.3d 1303, 1313 (Fed. Cir. 2011) (quoting Eaton Corp. v. Rockwell Int’l Corp., 323 F.3d 1332, 1334 (Fed. Cir. 2003)).

Gatekeeper argues that the record is sufficient to create a triable issue of fact as to whether Control Solutions employee Mike McKee conceived of the invention. Gatekeeper primarily relies on communications between McKee and Dane employees discussing the capability of Control Solutions' controllers. These discussions do not raise a genuine fact issue as to whether McKee conceived of the invention.

In his deposition, McKee testified that his discussions with Dane began with "somebody in their engineering group about a controller they needed for the shopping cart push application. And I remember having discussions back and forth about what they needed." Katzenellenbogen Decl. Ex. 10-18 at 12:15–20. McKee further testified at his deposition that he "was trying to sell [Dane] on our capabilities of customizing one of our controllers for their application." Id. 33:19–20. When asked why Dane might be interested in purchasing controllers from Control Solutions, McKee responded, "we're somewhat unique in the space in that we're willing to customize products for customers when they come." Id. 36:12–14. McKee also stated that the power limiting functionality was not available in a current Control Solutions controller in the way that Dane needed it. Id. 59:1–21.

McKee's testimony defeats Gatekeeper's derivation defense. There is no genuine dispute as to whether McKee conceived of the invention before the named inventors. Dane's invention required customization rather than simply combining a Control Systems controller with a shopping cart retriever vehicle. Dane's motion with respect to Gatekeeper 35 U.S.C. § 102(f) defense is granted.

#### **IV. CONCLUSION**

Based on the foregoing, and all the files, records and proceedings herein, **IT IS**

**HEREBY ORDERED** that Gatekeeper Systems, Inc.’s Motions for Summary Judgment [Docket Nos. 308, 313, 318, 323, and 327] are **GRANTED IN PART** and **DENIED IN PART**, and Dane Technologies, Inc.’s Motion for Partial Summary Judgment [Docket No. 338] is **GRANTED IN PART** and **DENIED IN PART**, as follows:

1. Gatekeeper Systems, Inc.’s First Motion for Summary Judgment [Docket No. 308] is **DENIED**;
2. Gatekeeper Systems, Inc.’s Second Motion for Summary Judgment [Docket No. 313] is **DENIED**;
3. Gatekeeper Systems, Inc.’s Third Motion for Summary Judgment [Docket No. 318] is **DENIED**;
4. Gatekeeper Systems, Inc.’s Fourth Motion for Summary Judgment [Docket No. 323] is **GRANTED**;
5. Gatekeeper Systems, Inc.’s Fifth Motion for Summary Judgment [Docket No. 327] is **GRANTED IN PART and DENIED IN PART**, as follows:
  - A. Laches with respect to the ‘379 Patent, the motion is **GRANTED**;
  - B. Laches with respect to the ‘836 and ‘979 Patents, the motion is **DENIED**; and
  - C. Equitable estoppel with respect to the Patents-in-Suit, the motion is **DENIED**;
6. Dane Technologies, Inc.’s Motion for Partial Summary Judgment [Docket No. 338] is **GRANTED IN PART and DENIED IN PART**, as follows:
  - A. Laches with respect to the ‘379 Patent, the motion is **DENIED**;
  - B. Laches with respect to the ‘836 and ‘979 Patent, the motion is **GRANTED**;
  - C. Equitable estoppel, waiver, and acquiescence with respect to the Patents-in-Suit, the motion is **GRANTED**;
  - D. Lost profits the motion is **DENIED**; and

E. Validity under 35 U.S.C. § 102(f) with respect to the ‘836 and ‘979 Patents, the motion is GRANTED.

BY THE COURT:

s/Ann D. Montgomery  
ANN D. MONTGOMERY  
U.S. DISTRICT JUDGE

Dated: September 29, 2015.