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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

OPTICURRENT, LLC,
Plaintiff,
v.
POWER INTEGRATIONS, INC., et al.,
Defendants.

Case No. [17-cv-03597-WHO](#)

**ORDER GRANTING IN PART AND
DENYING IN PART MOTION FOR
SUMMARY JUDGMENT**

Re: Dkt. Nos. 103, 104

INTRODUCTION

Plaintiff Opticurrent, LLC (“Opticurrent”) is the owner of United States Patent No. 6,958,623 (“the ‘623 Patent”), which relates to a circuit design for transistor switches. Opticurrent alleges that defendant Power Integrations, Inc. (“PI”) manufactures and sells certain products that infringe Claim 1 of the ‘623 Patent, and provides such products for distribution to companies, including defendant Mouser Electronics, for sale within the United States. Opticurrent brings this lawsuit against defendants for willful, direct, and induced infringement. The claims against Mouser Electronics have since been severed and stayed pending resolution of the claims against PI. *See* Dkt. No. 34 at 8–9. Opticurrent’s claim of willful infringement has also been dismissed. *See id.* at 3–4. PI now moves for summary judgment against Opticurrent on the grounds of invalidity as well as non-infringement. While I conclude that Opticurrent is not entitled to a pre-filing priority date, there are material disputes of fact that preclude summary judgment. For the reasons stated below, I GRANT IN PART and DENY IN PART PI’s motion.

BACKGROUND

I. The ‘623 Patent

The ‘623 Patent, titled “Three Terminal Noninverting Transistor Switch,” was filed on January 19, 2001, and issued on October 25, 2005, to sole inventor James Congdon. *See*

1 Complaint (“Compl.”) Ex. 1 (“‘623 Patent”). It relates to a novel circuit design for transistor
2 switches used in semiconductor devices that minimizes current leakage between the second and
3 third terminals of a transistor switch. *See* Compl. ¶ 13; ‘623 Patent at 2:43–47. Claim 1 of the
4 ‘623 Patent recites:

- 5 1. A noninverting transistor switch having only three terminals, said terminals being a
6 first terminal, a second terminal, and a third terminal, said noninverting transistor
7 switch comprising:
 - 8 (a) a transistor connected to the second and third terminals, said transistor having an on
9 switching state in which current is able pass between the second and third terminals
10 and an off switching state in which current is interrupted from passing between the
11 second and third terminals,
 - 12 (b) a voltage stabilizer connected to the second and third terminals, and
 - 13 (c) a complementary metal oxide semiconductor (CMOS) inverter connected to the
14 first terminal, the second terminal, said transistor and said voltage stabilizer, said
15 CMOS inverter interrupting the passing of current between said voltage stabilizer
16 and the second terminal when said transistor is in its off switching state.

17 ‘623 Patent at 14:50–15:2. Congdon assigned all rights, title, and interest in and to the ‘623 Patent
18 to Opticurrent in 2012. Headley Decl. Ex. 8 [Dkt. No. 87-1], at 86:4–6.

19 Congdon claims that he first conceived of the invention of the ‘623 Patent prior to filing
20 his patent application, no later than February 23, 1997, *see* Gunter Decl. Ex. 2 [Dkt. No. 105-3], at
21 8, as evidenced by a notebook drawing, *see* Headley Decl. Ex. 6 [Dkt. No. 103-8]. Congdon also
22 testified that he reduced his invention to practice by creating a “dusty breadboard” evidencing
23 each element of Claim 1 of the ‘623 Patent, which still exists. *See* Gunter Decl. Ex. 4 [Dkt. No.
24 105-5], at 511:19–22. While Congdon admitted that he modified the breadboard over time, he
25 testified that the changes “don’t make any substantial change in how the circuit works. The—the
26 circuit still operates as is 623 as it did before those were added.” Gunter Decl. Ex. 3 [Dkt. No.
27 105-4], at 384:20–23.

28 PI manufactures certain products, including the LNK585, LNK605, TNY179, TNY277
(collectively, the “accused products”), and TOPSwitch-GX (also known as TOP247YN). The
TOPSwitch-GX product family was on sale in the United States prior to January 19, 2001. *See*
Headley Decl. Ex. 10 [Dkt. No. 103-12] (press release announcing the TOPSwitch-GX family
dated November 20, 2000).

1 judgment as a matter of law.” Fed. R. Civ. P. 56(a). Material facts are those which may affect the
2 outcome of the case. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A dispute as to a
3 material fact is genuine if there is sufficient evidence for a reasonable jury to return a verdict for
4 the nonmoving party.

5 The party moving for summary judgment bears the initial burden of identifying those
6 portions of the pleadings, discovery, and affidavits that demonstrate the absence of a genuine issue
7 of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The moving party “is
8 entitled to a judgment as a matter of law [when] the nonmoving party has failed to make a
9 sufficient showing on an essential element of her case with respect to which she has the burden of
10 proof.” *Id.* (internal quotation marks omitted). The moving party need only show “that there is an
11 absence of evidence to support the nonmoving party’s case.” *Id.* at 325.

12 Once the moving party meets its initial burden, the nonmoving party must go beyond the
13 pleadings and, by its own affidavits or discovery, set forth specific facts showing that there is a
14 genuine issue for trial. Fed. R. Civ. P. 56(c). “Factual disputes that are irrelevant or unnecessary
15 will not be counted.” *Anderson*, 477 U.S. at 248. It is not the task of the court to scour the record
16 in search of a genuine issue of triable fact. *Keenan v. Allan*, 91 F.3d 1275, 1279 (9th Cir. 1996).
17 The nonmoving party has the burden of identifying, with reasonable particularity, the evidence
18 that precludes summary judgment. *Id.* If the nonmoving party fails to make this showing, “the
19 moving party is entitled to a judgment as a matter of law.” *Celotex*, 477 U.S. at 322.

20 **DISCUSSION**

21 **I. Pre-Filing Priority Date**

22 Under Section 102(a) of the Patent Act, a patented invention must be “new.” 35 U.S.C. §
23 102(a). Section 102(a) precludes the patenting of any invention that “was known or used by
24 others in this country, or patented or described in a printed publication in this or a foreign country”
25 before the date of the invention. *Id.*; *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313,
26 1352 (Fed. Cir. 2003). “It is presumed that the invention date is the filing date of the asserted
27 patent . . . until an earlier date is proved.” *Volterra Semiconductor Corp. v. Primarion, Inc.*, 796
28 F. Supp. 2d 1025, 1061 (N.D. Cal. 2011). Because PI’s allegedly infringing product predates the

1 filing date of Opticurrent’s patent, Opticurrent must show that it is entitled to a pre-filing priority
2 date in order to succeed on its claims.

3 The question of priority “focuses on which party *first* invented the subject matter of the
4 count.” *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993). “Priority is a question of law
5 which is to be determined based upon underlying factual determinations.” *Id.* In determining
6 priority, the Federal Circuit has instructed courts to look at when both conception of the invention
7 occurred as well as reduction to practice. *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577
8 (Fed. Cir. 1996). “In the United States, the person who first reduces an invention to practice is
9 prima facie the first and true inventor.” *Id.* (internal quotation marks omitted). “However, the
10 person who first conceives, and, in a mental sense, first invents . . . may date his patentable
11 invention back to the time of its conception, if he connects the conception with its reduction to
12 practice by reasonable diligence on his part, so that they are substantially one continuous act.” *Id.*
13 (internal quotation marks omitted). Diligence is not required, however, where a party shows
14 priority through actual reduction to practice. *See Monsanto Co. v. Mycogen Plant Sci., Inc.*, 261
15 F.3d 1356, 1362–63 (Fed. Cir. 2001) (“[A] showing of diligence is necessary for a party who was
16 first to conceive but second to reduce to practice.”)

17 In order to establish conception, “an inventor must have formed in his or her mind a
18 definite and permanent idea of the complete and operative invention, as it is hereafter to be applied
19 in practice.” *Mahurkar*, 79 F.3d at 1577 (internal quotation marks omitted). Where a party seeks
20 to show conception through the oral testimony of an inventor, the Federal Circuit requires
21 corroboration and applies a rule of reason analysis. *Id.* Under this analysis, “[a]n evaluation of all
22 pertinent evidence must be made so that a sound determination of the credibility of the inventor’s
23 story may be reached.” *Id.* However, where a party seeks to prove conception through physical
24 exhibits, corroboration is not required. *Id.* Instead, “[t]he trier of fact can conclude for itself what
25 documents show, aided by testimony as to what the exhibit would mean to one skilled in the art.”
26 *Id.*

27 In order to show reduction to practice, a party “must demonstrate that the invention is
28 suitable for its intended purpose.” *Scott v. Finney*, 34 F.3d 1058, 1061 (Fed. Cir. 1994).

1 “Reduction to practice, however, does not require actual use, but only a reasonable showing that
2 the invention will work to overcome the problem it addresses.” *Id.* at 1063. This burden falls on
3 the party seeking to demonstrate priority by clear and convincing evidence. *See Mahurkar*, 79
4 F.3d at 1578.

5 **A. Evidence of Conception**

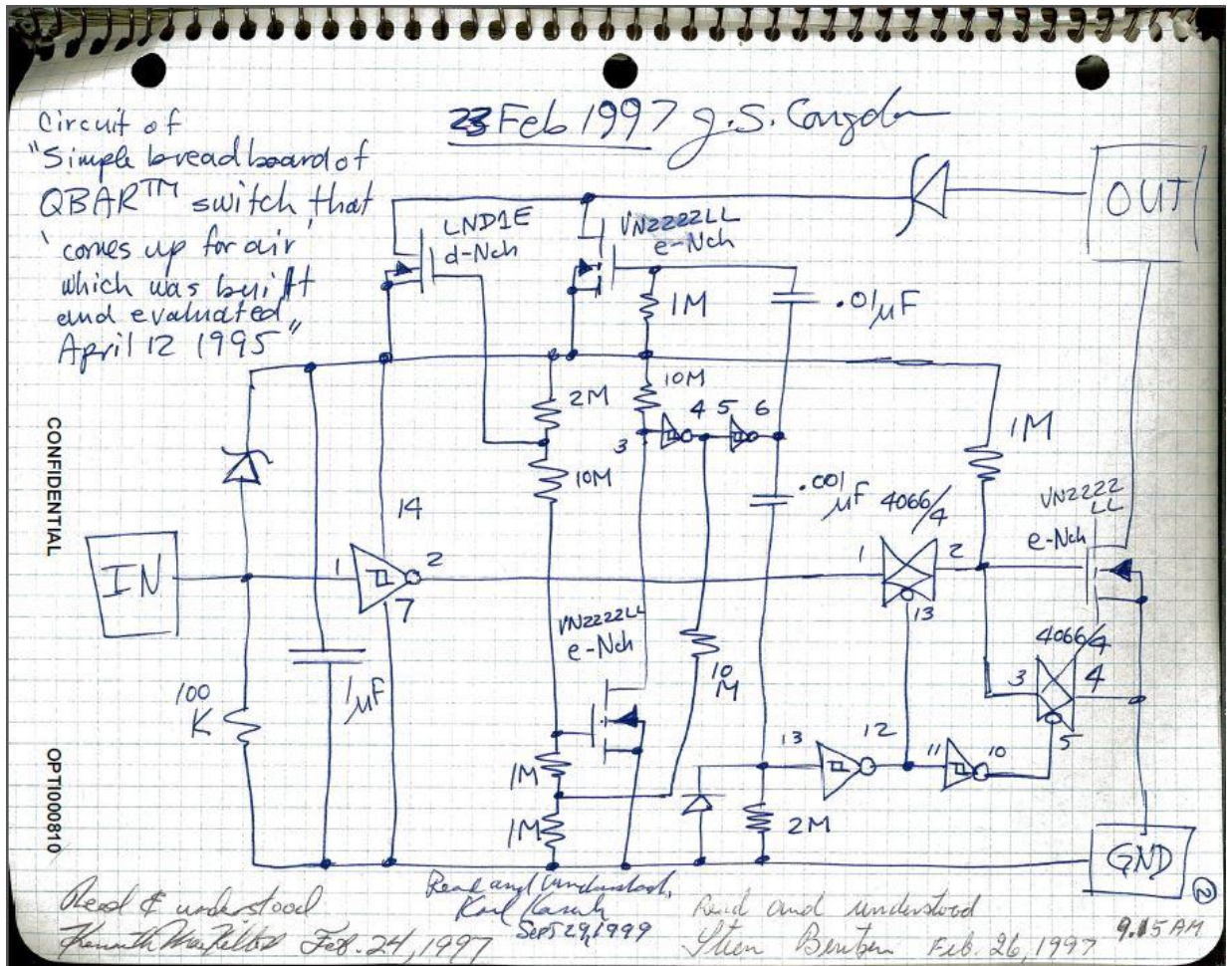
6 PI contends that Opticurrent fails to point to any independent evidence proving conception
7 on February 23, 1997.² Opticurrent argues that in addition to Congdon’s deposition testimony, it
8 has also produced physical evidence in the form of Congdon’s notebook drawing dated February
9 23, 1997, also signed and dated by three witnesses. It maintains that physical evidence in and of
10 itself is sufficient and does not require corroboration, but the signatures provide further evidence
11 of conception. PI characterizes this evidence as “the naked say-so of the inventor” accompanied
12 by inadmissible, unauthenticated signatures of third parties. Mot. at 12.

13 The sole piece of physical evidence in support of conception is a handwritten notebook
14 drawing, reproduced here:

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25 ² Opticurrent contends that conception and reduction to practice occurred “on or before” February
26 23, 1997. *See, e.g.,* Gunter Decl. Ex. 4 [Dkt. No. 105-5], at 405:22–23; 406:12–13; 409:10.
27 Pursuant to Patent Local Rule 3-1(f), I will consider Opticurrent alleged date of conception and
28 reduction to practice to be February 23, 1997. *See Harvatek Corp. v. Cree, Inc.*, No. C 14-05353
WHA, 2015 WL 4396379, at *2 (N.D. Cal. July 17, 2015) (striking “no later than” language
because “Patent L.R. 3-1(f) particularly requires a patent holder to assert a specific date of
conception, not a date range . . .”).

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See Headley Decl. Ex. 6. Opticurrent states and PI does not dispute that Congdon made this drawing and that it contains each and every element of Claim 1 of the '623 Patent. At issue, however, are the three signatures that appear at the bottom of the drawing. Each reflects that the drawing was "[r]ead and understood" by three separate individuals on February 24, 1997, February 26, 1997, and September 29, 1999, respectively. *Id.* The signatories to the document have not provided any testimony or declarations in this litigation.

The parties vigorously debate whether this is the type of physical evidence that does not require corroboration. See *Mahurkar*, 79 F.3d at 1577. The case law on this issue is less than clear. On the one hand, the Federal Circuit has stated in various opinions that "[t]he inventor . . . must provide *independent* corroborating evidence in addition to his own statements and documents." *Hahn v. Wong*, 892 F.2d 1028, 1031 (Fed. Cir. 1989) (emphasis added); see also *Procter v. Gamble Co. v. Teva Pharm. USA, Inc.*, 566 F.3d 989, 998–99 (Fed. Cir. 2009)

1 (affirming district court’s rejection of party’s proffer of inventor’s laboratory notebook in support
2 of earlier conception date because “this entry was unwitnessed and was not corroborated by any
3 other evidence”).

4 Yet in *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, for example, the Federal Circuit
5 reversed the district court’s finding that there was no credible evidence of conception because the
6 inventor’s “laboratory notebooks, alone, are enough to show clear error in the findings that
7 underlie the holding that the invention was not conceived before May 1980.” 802 F.2d 1367, 1378
8 (Fed. Cir. 1986). Despite the fact that “some of the notebooks were not witnessed until a few
9 months to one year after their writing,” the court nonetheless explained that that fact “d[id] not
10 make them incredible or necessarily of little corroborative value.” *Id.*; see also *Price v. Symsek*,
11 988 F.2d 1187, 1195 (Fed. Cir. 1993) (finding that “[t]he board erred in its understanding that
12 what a[n inventor] drawing discloses invariably needs to be supported by corroborating evidence”
13 because “‘corroboration’ is not necessary to establish what a physical exhibit before the board
14 includes”).

15 I follow the reasoning of *Procter* and *Hahn* more persuasive, particularly in light of the
16 purpose behind the corroboration requirement. It exists “[b]ecause of a concern that inventors
17 testifying in patent infringement cases would be tempted to remember facts favorable to their case
18 by the lure of protecting their patent or defeating another’s patent.” *Cordance Corp. v.*
19 *Amazon.com, Inc.*, 658 F.3d 1330, 1334 (Fed. Cir. 2011) (internal quotation marks omitted).
20 Thus, “[t]he requirement of *independent* knowledge remains key to the corroboration inquiry.”
21 *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1170 (Fed. Cir. 2006) (emphasis added). Here,
22 the only physical evidence that Opticurrent offers is not independent, but rather the inventor’s own
23 drawing, which, like his testimony, bears the risk of bias in his favor. I will therefore look to see
24 whether the drawing is sufficiently corroborated.

25 Opticurrent argues that the drawing is corroborated by the three signatories to the
26 document, two of whom read and understood the document within three days of its creation. See
27 Headley Decl. Ex. 6. PI argues that these signatures are inadmissible because they have not been
28 authenticated; the three signatories have not provided any testimony or declarations in this suit,

1 and Congdon’s own testimony is insufficient to corroborate and authenticate third-party
2 signatures. Mot. at 12 (citing *Chen v. Bouchard*, 347 F.3d 1299, 1311 (Fed. Cir. 2003) (“[N]o
3 witness who signed any of Dr. Chen’s or any other involved researchers’ notebooks testified in
4 this proceeding, and all of the information within those notebooks therefore remains
5 uncorroborated.”)). In *Chen*, however, the Federal Circuit rejected the unauthenticated signatures
6 as corroboration of reduction to practice, which, as PI notes, is subject to a more stringent
7 corroboration requirement than conception. See Rep. at 10. While PI argues that the signatures
8 are unauthenticated, and there was no showing that the witnesses were unavailable, PI does not
9 provide any evidence that the signatures are forged or otherwise incredible. As such, these
10 signatures are at least sufficient to raise a genuine issue of material fact as to corroboration and
11 therefore conception.

12 **B. Evidence of Reduction to Practice**

13 Similarly to the argument regarding conception, PI again argues that Opticurrent fails to
14 produce independent evidence of actual reduction to practice. Opticurrent points to Congdon’s so-
15 called “dusty breadboard,” see Gunter Decl. Ex. 4 at 509:9–11; 511:13–22, which Opticurrent
16 contends is physical evidence of an actual reduction to practice because it contains each of the
17 elements required by Claim 1. PI argues that (1) there is no corroboration that the breadboard
18 existed at all on February 23, 1997; (2) Congdon cannot testify as to the state of the breadboard on
19 February 23, 1997 due to his numerous modifications; and (3) Congdon conceded that the
20 breadboard did not function for its intended purpose.³

21 As with conception, reduction to practice also requires corroboration, and it is “a more
22 stringent standard than that required to corroborate a conception.” *Singh v. Brake*, 222 F.3d 1362,
23 1370 (Fed. Cir. 2000). While Opticurrent defends the breadboard against PI’s attacks with
24 Congdon’s deposition testimony, the inventor’s own testimony cannot constitute independent
25 corroboration that the breadboard existed on February 23, 1997, or its state at that time. The only
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28 ³ While it is not material to my decision, I note that the “dusty breadboard” and the notebook page
were not disclosed until April 2017, well after the commencement of the litigation and only a
month before the close of fact discovery.

1 other corroboration of the breadboard is the single-page drawing from Congdon’s notebook, which
2 very briefly references the breadboard in notes on the top left of the drawing. *See* Headly Decl.
3 Ex. 6. Although the notebook, with its unauthenticated signatures, was sufficient to raise a
4 genuine issue of material fact as to conception, the Federal Circuit is clear that it cannot as to
5 actual reduction to practice. *See Singh*, 222 F.3d at 1370 (“Indeed, a notebook page may well
6 show that the inventor *conceived* what he wrote on the page, whereas it may not show that the
7 experiments were *actually performed*, as required for a reduction to practice.”) (emphasis in
8 original); *see also Chen*, 347 F.3d at 1311; *Mikus v. Wachtel*, 542 F.2d 1157, 1161 (C.C.P.A.
9 1976) (holding that an invention record, based on unwitnessed laboratory notebook and results,
10 may provide sufficient evidence of conception but not reduction to practice under rule of reason).
11 Because Opticurrent fails to point to independent evidence corroborating the breadboard, it cannot
12 raise a genuine issue of material fact as to actual reduction to practice.

13 **C. Evidence of Diligence**

14 A party that is first to conceive but second to reduce to practice may nonetheless show
15 priority if it can establish diligence. “Precedent requires that an inventor’s testimony concerning
16 his diligence be corroborated.” *Brown v. Barbacid*, 436 F.3d 1376, 1380 (Fed. Cir. 2006).
17 “Unlike the legal rigor of conception and reduction to practice, diligence and its corroboration
18 may be shown by a variety of activities, as precedent illustrates.” *Id.* Despite this relaxed
19 standard, however, Opticurrent nonetheless fails to show a genuine issue of material fact as to
20 diligence because it offers no independent corroborating evidence. The only evidence in the
21 record as to Congdon’s diligence is his own testimony. *See* Opp. at 18 n.10. Accordingly,
22 Opticurrent cannot show diligence.

23 While Opticurrent succeeds in demonstrating a genuine issue of material fact as to
24 conception, Opticurrent fails to do so with respect to actual reduction to practice and diligence,
25 and therefore cannot survive summary judgment as to the issue of priority. Because Opticurrent
26 does not raise a genuine issue of material fact as to entitlement to a pre-filing priority date, the
27 relevant priority date is the date of filing of the patent on January 19, 2001.
28

1 **II. Validity of the ‘623 Patent**

2 PI next contends that because the proper priority date is January 19, 2001, and PI’s product
3 TOPSwitch-GX was on sale in the United States at least as of its official release on November 20,
4 2000, the ‘623 patent is invalid. Opticurrent counters that it has dropped the TOPSwitch-GX from
5 this lawsuit after determining that it does not infringe the ‘623 Patent, and thus its date of sale is
6 irrelevant and cannot invalidate the Patent. Opticurrent also provides the expert testimony of Dr.
7 Regan Zane, who testifies that the TOPSwitch-GX does not include each limitation required by
8 Claim 1, and therefore does not infringe on or invalidate Claim 1. *See* Declaration of Regan Zane
9 (“Zane Decl.”) at ¶¶ 65–70.

10 PI does not address Dr. Zane’s testimony, but instead responds that Opticurrent’s original
11 infringement contentions serve as binding admissions, pointing to Opticurrent’s pre-suit reverse
12 engineering to confirm the TOPSwitch-GX’s transistor-level circuit structures. The cases PI cites
13 in support of its argument, however, are distinguishable. In *Gammino v. Spring Commc’ns Co.*
14 *L.P.*, the district court considered the patentee’s accusations of infringement as a “binding
15 admission” of invalidity only because the patentee had previously argued the same in another case
16 and had a “full and fair opportunity to litigate the claims;” therefore, the court thought it
17 appropriate to apply a “collateral estoppel effect.” No. 10-2493, 2011 WL 3240830, at *2–3 (E.D.
18 Pa. July 29, 2011). *Google Inc. v. Beneficial Innovations, Inc.* is more analogous to the current
19 case, but there the district court recognized that the general rule is that “a plaintiff cannot prove
20 infringement based on contentions alone, and must proffer sufficient evidence supporting the
21 allegations set forth in the infringement contentions.” No. 2:11-cv-00229, 2014 WL 4215402, at
22 *4 (E.D. Tex. Aug. 22, 2014). Moreover, in *Google*, the patentee had not withdrawn the
23 infringement allegations, nor had it proffered expert testimony as to the relevant product’s non-
24 infringement.

25 Given that Opticurrent has not only dropped the contentions with respect to the
26 TOPSwitch-GX, which PI did not oppose, and has submitted unrefuted expert testimony on the
27 issue, I do not find that Opticurrent’s original infringement contentions are binding admissions.
28 And while PI argues that Opticurrent’s timing is all too convenient, there is no evidence that

1 Opticurrent has acted in a manipulative way or with bad faith. Because PI did not include this
 2 specific theory of invalidity, based on preexistence of the TOPSwitch-GX on the market prior to
 3 the ‘623 Patent’s filing date, in their invalidity contentions, Opticurrent was not aware of this
 4 argument at the time that it decided to drop the TOPSwitch-GX from the suit. Nor is there any
 5 evidence that Opticurrent was aware of the release date of the TOPSwitch-GX family of products
 6 at that time. While PI is free to raise the issue at trial, Opticurrent has succeeded in raising a
 7 genuine issue of material fact regarding invalidity that is sufficient to survive summary judgment.

8 **III. Infringement**

9 As claim construction has already occurred, I turn directly to the question of patent
 10 infringement. Patent infringement is a question of fact. *See Bayer AG v. Elan Pharm. Research*
 11 *Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000); *see also Catalina Marketing Int’l, Inc. v.*
 12 *Coolsavings.com, Inc.*, 289 F.3d 801, 812 (Fed. Cir. 2002) (“Summary judgment of no literal
 13 infringement is proper when, construing the facts in a manner most favorable to the nonmovant,
 14 no reasonable jury could find that the accused system meets every limitation recited in the
 15 properly construed claims.”). “To prevail, the plaintiff must establish by a preponderance of the
 16 evidence that the accused device infringes one or more claims of the patent either literally or under
 17 the doctrine of equivalents.” *Bayer*, 212 F.3d at 1247.

18 “Literal infringement requires the patentee to prove that the accused device contains each
 19 limitation of the asserted claim(s).” *Bayer*, 212 F.3d at 1247 (citing *Mas–Hamilton Group v.*
 20 *LaGard, Inc.*, 156 F.3d 1206, 1211 (Fed. Cir. 1998)). “If any claim limitation is absent from the
 21 accused device, there is no literal infringement as a matter of law.” *Id.* “If an asserted claim does
 22 not literally read on an accused product, infringement may still occur under the doctrine of
 23 equivalents if there is not a substantial difference between the limitations of the claim and the
 24 accused product.” *Id.* at 1250; *see also Catalina Marketing*, 289 F.3d at 812 (“Infringement under
 25 the doctrine of equivalents requires the patentee to prove that the accused device contains an
 26 equivalent for each limitation not literally satisfied.”). “Insubstantiality may be determined by
 27 whether the accused device “performs substantially the same function in substantially the same
 28 way to obtain the same result” as the claim limitation.” *Catalina Marketing*, 289 F.3d at 813.

1 **A. Literal Infringement**

2 PI’s argument for no literal infringement rests on the theory that the claims, as construed,
3 do not allow for a fourth pin connected to an external power supply. Thus, because the accused
4 products each have a fourth terminal connected to a power supply, they do not infringe the ‘623
5 Patent. Opticurrent responds that this argument rehashes those at claim construction, is contrary
6 to the specification of the ‘623 Patent, and is refuted by expert testimony.

7 At claim construction, Judge Gilstrap reviewed the parties’ arguments regarding the phrase
8 “a noninverting transistor switch having only three terminals” as well as the patent specification.
9 Judge Gilstrap noted that “the specification [] states that a three terminal noninverting transistor
10 switch may have a fourth terminal/pin and still be considered a three terminal switch.” *See*
11 Memorandum Opinion and Order dated Apr. 18, 2017 (“Claim Construction Order”) [Dkt. No. 58]
12 at 12. He cited to the patent specification:

13 For example, the scope of the present invention also includes three terminal noninverting
14 transistor-switches that use a “fourth” pin (power supply) for normal operation (and
15 potentially even for enhancement purposes) but still operate (for example as a “fail-safe”
16 feature) without power applied to this “fourth” power pin.

17 ‘623 Patent at 14:41–46. Finding that the distinction between three and four terminal switches in
18 the context of the patent is “the connection to a power supply by a fourth terminal,” he construed
19 the phrase as “a noninverting transistor switch with three terminals that does not have a fourth
20 terminal connected to a power supply.” *See* Claim Construction Order at 12. PI asserts and
21 Opticurrent does not dispute that each of the accused products includes a fourth terminal, the
22 BP/M pin, that is connected to a capacitor. *See* Mot. at 18; Opp. at 22. The question is whether
23 the capacitor to which the fourth terminal is connected is a “power supply.”

24 In support of its argument, PI submits datasheets for each of the accused products that
25 show that the BP/M pins are connected to external C_{BP} capacitors. *See* Headley Decl. Ex. 12 [Dkt.
26 No. 103-14], at PI_OPT0000001; Ex. 13 [Dkt. No. 103-15], at PI_OPT0000095; Ex. 14 [Dkt. No.
27 103-16], at PI_OPT0000150; Ex. 15 [Dkt. No. 103-17], at PI_OPT0000230. It contends that the
28 evidence and Opticurrent’s own admissions demonstrate that the capacitor is a power supply
because it stores energy and provides power. For example, the datasheet for the TNY179 states

1 that “[t]he BYPASS/MULTI-FUCNTION pin is the internal supply voltage node. When the
2 MOSFET is on, the device operates from the energy stored in the bypass capacitor.” Headley
3 Decl. Ex. 14, at PI_OPT0000152; *see also* Ex. 12, at PI_OPT0000003; Ex. 13, at
4 PI_OPT0000097; Ex. 15, at PI_OPT0000232. And at the claim construction hearing, Opticurrent
5 explained that “the key difference between a three terminal non-inverting switch is that those first
6 three terminals are connected to the same type of thing, input signal, load, and ground; however,
7 there is no fourth terminal that’s connected to an external power supply” Headley Decl. Ex.
8 11 [Dkt. No. 103-13], at 6:12–16; *see also id.* at 10:3–6 (“The issue is really where there’s some
9 other pin that’s connected to an external power supply as opposed to the power being supplied by
10 the voltage stabilizer to the rest of the circuit.”).

11 In response, Opticurrent argues that the BP/M pin does not negate infringement because
12 “all of the energy that the capacitor connected to the BP/M pin receives is derived and regulated
13 from the output terminals.” Opp. at 23. It points to the deposition testimony of David Kung, PI’s
14 30(b)(6) representative, who explained that the capacitor “gets charged . . . because of the
15 operation current that it provides to the chip. Then the chip gets replenished through drain,”
16 supporting Opticurrent’s contention that the power was derived from the drain as opposed to a
17 fourth terminal connected to a power supply. Gunter Decl. Ex. 9 [Dkt. No. 105-10], at 30:19–23.
18 It also submits Dr. Zane’s testimony, who opines that the C_{BP} capacitor “is not a ‘power supply’”
19 because the accused products “derive all of their operating power from the second and third
20 terminals” and “[t]he capacitor merely acts as a filter for the internal power supply of the product.”
21 Zane Decl. ¶ 44.

22 While a close call, Opticurrent has at least raised a genuine issue of material fact regarding
23 whether the capacitors in the accused products are power supplies or not. Opticurrent argues, and
24 there is evidence that, the capacitor in PI’s products is used as energy storage for energy generated
25 by the other three terminals, and does not generate any energy on its own. Under Opticurrent’s
26 characterization, the capacitor does not supply any energy but instead acts as an energy storage
27 tank. If Opticurrent is correct, then a reasonable jury may find that the capacitor is not a power
28 supply, and the accused products thus do not have a fourth terminal connected to a power supply.

1 Because Opticurrent raises an issue of material fact, I cannot grant summary judgment on this
2 record.

3 **B. Infringement Under the Doctrine of Equivalents**

4 Even if Opticurrent’s characterization is incorrect and PI’s products do not literally
5 infringe, I would nonetheless deny summary judgment on the grounds that Opticurrent raises a
6 genuine issue of material fact as to the doctrine of equivalents. Opticurrent argues that the
7 accused products contain each limitation of the claim or its equivalent, as supported by Dr. Zane’s
8 expert opinion, and therefore the doctrine of equivalents necessarily applies. While PI does not
9 dispute that the accused products contain each limitation of the claim or its equivalent, PI contends
10 that the accused products do not infringe the ‘623 Patent under the doctrine of equivalents because
11 finding otherwise would violate both the vitiation and ensnarement doctrines.

12 **1. The Vitiation Doctrine**

13 While “[t]he test of the equivalence of a proposed substitute for a missing element is
14 ordinarily a factual inquiry reserved for the finder of fact,” “‘vitiation’ is not an exception to the
15 doctrine of equivalents, but instead a legal determination that ‘the evidence is such that no
16 reasonable jury could determine two elements to be equivalent.’” *Deere & Co. v. Bush Hog, LLC*,
17 703 F.3d 1349, 1357 (Fed. Cir. 2012). “There is no set formula for determining whether a finding
18 of equivalence would vitiate a claim limitation, and thereby violate the all limitations rule.”
19 *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1359 (Fed. Cir. 2005). “Rather, courts
20 must consider the totality of the circumstances of each case and determine whether the alleged
21 equivalent can be fairly characterized as an insubstantial change from the claimed subject matter
22 without rendering the pertinent limitation meaningless.” *Id.*

23 “The vitiation concept has its clearest application where the accused device contain[s] the
24 antithesis of the claimed structure.” *Brilliant Instruments, Inc. v. GuideTech, LLC*, 707 F.3d 1342,
25 1347 (Fed. Cir. 2013) (internal quotation marks and citation omitted). “This makes sense”
26 because “two elements likely are not insubstantially different when they are polar opposites.” *Id.*
27 The Federal Circuit has clarified that the vitiation test cannot be satisfied (1) “by simply noting
28 that an element is missing from the claimed structure or process,” since the doctrine of equivalents

1 by definition assumes as much; nor (2) “merely by noting that the equivalent substitute is outside
2 the claimed limitation’s literal scope.” *Id.* “Rather, vitiation applies when one of skill in the art
3 would understand that the literal and substitute limitations are not interchangeable, not
4 insubstantially different, and when they do not perform substantially the same function in
5 substantially the same way, to accomplish substantially the same result” *Id.*

6 Given the evidence as well as Dr. Zane’s testimony, I cannot find that no reasonable jury
7 could find equivalence. PI’s argument boils down to merely noting that the equivalent
8 substitute—here, the accused products’ fourth pin, connected to a capacitor—is outside the
9 claimed limitation’s literal scope. But Opticurrent argues that the evidence shows that even if the
10 capacitor can function as a power supply, it is not used as one because the power comes from the
11 drain; instead, the capacitor acts as a mere filter for the internal power supply. *See* Gunter Decl.
12 Ex. 9, at 30:19–23; Zane Decl. ¶ 44. Finding equivalence in this limited instance would not vitiate
13 the claim limitations such that any transistor switch with a fourth terminal connected to a power
14 supply would fall within Claim 1 of the ‘623 Patent; instead, Opticurrent argues that despite the
15 presence of a fourth terminal connected to a capacitor, the capacitor does not function as a power
16 supply and therefore the accused products function substantially the same way as a transistor
17 switch having only three terminals. For this reason, Opticurrent has raised a genuine issue of
18 material fact as to whether PI’s accused products infringe Claim 1 under the doctrine of
19 equivalence.

20 **2. The Ensnarement Doctrine**

21 “A patentee may not assert a scope of equivalency that would encompass, or ensnare, the
22 prior art.” *Intendis GMBH v. Glenarmk Pharm. Inc., USA*, 822 F.3d 1355, 1363 (Fed. Cir. 2016).
23 Thus, even if an accused element meets functional equivalency, “no equivalent will be found if the
24 scope of equivalency would capture the prior art.” *Id.*

25 PI argues that Opticurrent has recognized in various stages of the litigation that a four-
26 terminal device with a fourth terminal connected to a power supply was the prior art, pointing to
27 the patent specification, the claim construction hearing, and Judge Gilstrap’s Claim Construction
28 Order. Similar to its arguments on literal infringement and vitiation, Opticurrent responds that the

1 fourth terminal in the accused products does not negate their infringement because the capacitor
2 does not act as an external power supply. Given that Opticurrent is not claiming all four-terminal
3 devices with a fourth terminal connected to a power supply, but rather three-terminal devices or
4 four-terminal devices where the fourth terminal is attached to something that does not function as
5 a power supply, this limitation does not pose an ensnarement issue.

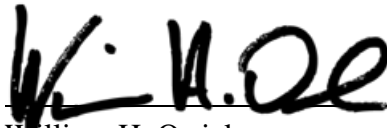
6 Moreover, at claim construction, Judge Gilstrap recognized that “[t]he specification
7 contrasts three terminal switches to four terminal switches, a distinction that is apparently well
8 known in the art.” Claim Construction Order at 11. He also noted, however, that “the
9 specification again states that a three terminal noninverting transistor switch may have a fourth
10 terminal/pin *and still be considered a three terminal switch.*” *Id.* at 12 (emphasis added). The
11 patent specification specifically describes its scope as inclusive of “three terminal noninverting
12 transistor switches that use a ‘fourth’ pin (power supply) for normal operation . . . but still operate
13 . . . without power applied to this ‘fourth’ power pin,” *id.* (citing ‘623 Patent at 14:41–47), which
14 is how Opticurrent and its expert characterize the accused products. Given this specific carve-out,
15 which does not ensnare all products that contain four terminals or even all products that contain
16 four terminals connected to a power supply, Opticurrent’s theory under the doctrine of equivalents
17 does not impermissibly ensnare the prior art.

18 **CONCLUSION**

19 While Opticurrent is not entitled to a pre-filing priority date, it has successfully raised a
20 genuine issue of material fact as to the validity of the ‘623 Patent as well as infringement. For the
21 foregoing reasons, I GRANT IN PART and DENY IN PART PI’s Motion for Summary
22 Judgment.

23 **IT IS SO ORDERED.**

24 Dated: April 9, 2018

25
26 
27 William H. Orrick
28 United States District Judge