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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

POLARA ENGINEERING, INC.,
Plaintiff,
v.
CAMPBELL COMPANY,
Defendant.

Case No. SA CV 13-00007-DFM
ORDER RE: POSTTRIAL
MOTIONS

This matter is before the Court on the parties’ posttrial motions. Defendant Campbell Company (“Campbell”) moves for judgment as a matter of law. Plaintiff Polara Engineering, Inc. (“Polara”) moves for a permanent injunction, a judgment of willfulness and an award of treble damages, a finding of exceptional circumstances and a corresponding award of attorney’s fees, and an award of supplemental damages, prejudgment interest, and postjudgment interest.

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1 I.

2 BACKGROUND

3 Polara filed this patent-infringement suit against Campbell on January 2,
4 2013. Dkt. 1. Polara, a manufacturer of accessible pedestrian signal systems
5 and pedestrian push buttons, alleged that Campbell was infringing on Polara’s
6 United States Patent No. 7,145,476 (the “’476 Patent”). Id. at 2. The ’476
7 Patent, issued in December 2006, was for a “2-wire push button station control
8 system for a traffic light controlled intersection.” Id. at 3. Polara alleged that
9 Campbell, a manufacturer of traffic-industry products, had developed an
10 “Advisor Advanced Accessible Pedestrian Station,” or “AAPS,” that infringed
11 the ’476 Patent. Id.

12 Polara moved for summary judgment of infringement of Claims 1
13 through 4 of the ’476 Patent. Dkt. 87. Claim 1 recites:

14 A control system by which vibro-tactile messages are provided to
15 alert pedestrians when to cross a traffic light controlled
16 intersection, said control system comprising:

17 at least one push button station located at the traffic light
18 controlled intersection to be crossed by pedestrians, said
19 push button station including a push button head that is
20 depressed by the pedestrians and message generating means
21 adapted to cause said push button head to vibrate to provide
22 a tactile indication to a visually impaired pedestrian when to
23 cross the intersection; and

24 a control unit that is responsive to the depression of the push
25 button head of said push button station to transmit to the
26 push button station both power and digital data signals over
27 a single pair of wires by which to power and control the
28 operation of said message generating means.

1 Tr. Exh. 9 at 11.¹ Claim 2 recites the control system described in Claim 1 and
2 further provides that “at least one push button station also includes a
3 microcontroller to receive the power and digital data signals from said control
4 unit, said microcontroller providing output signals to control the operation of
5 said message generating means.” Id. Claim 3, in turn, is dependent on Claim
6 2, and further requires that “said message generating means of said at least one
7 push button station includes a vibration driver connected to said
8 microcontroller to cause said push button head to vibrate and thereby provide
9 said tactile indication to the visually impaired pedestrian that it is safe to cross
10 the intersection.” Id. Claim 4 recites the control system described in Claim 2,
11 “wherein said message generating means of said at least one push button
12 station includes a sound chip in which prerecorded messages are stored and
13 from which an audible indication is provided to the visually impaired
14 pedestrian whether” it is safe to cross the intersection. Id.

15 The judge originally assigned to this case—United States District Judge
16 Cormac J. Carney—found that Campbell’s AAPS infringed Claims 1 through
17 4 of the ’476 Patent, and that Polara was thus entitled to partial summary
18 judgment on the issue of infringement as to those claims. Dkt. 155. With trial
19 remaining on damages, Polara’s willfulness claim, and Campbell’s invalidity
20 and unenforceability defenses, the parties consented to this Court’s
21 jurisdiction. Dkt. 383; see 28 U.S.C. § 636(c).

22 A jury trial began on June 21, 2016. See Dkt. 413. After seven days of
23 jury selection, testimony, and argument, the jury returned a special verdict on
24 June 30, 2016. See Dkt. 440. The jury found that Campbell had not shown that
25 Claims 1 through 4 of the ’476 Patent were invalid. Id. at 2-3. The jury also

26
27 ¹ “Tr. Exh.” refers to the parties’ trial exhibits, which are identified in the
28 Amended List of Exhibits and Witnesses. Dkt. 474.

1 found that Polara had not proved that it was entitled to lost profits, but it
2 awarded damages of \$412,926 based on a 15 percent royalty rate and total
3 sales of \$2,752,842. *Id.* at 4. The jury found that Campbell had willfully
4 infringed the '476 Patent. *Id.* Finally, the jury made an advisory finding that
5 Polara had not engaged in inequitable conduct before the Patent and
6 Trademark Office (“PTO”) that rendered the '476 Patent unenforceable. *Id.* at
7 5.

8 These motions followed.

9 II.

10 DISCUSSION

11 A. Campbell’s Motion for Judgment as a Matter of Law

12 Campbell moves for judgment as a matter of law, arguing that: (1) the
13 '476 Patent is invalid because it was in public use for more than one year
14 before a patent application was filed; (2) Claims 1 through 4 were obvious in
15 light of the prior art; (3) the '476 Patent is invalid because it was described in
16 publications more than one year before Polara filed the patent application; and
17 (4) Campbell did not act willfully in infringing the '476 Patent. Dkt. 450 at 1-
18 56, 66-82.

19 1. Standard of Review

20 Federal Rule of Civil Procedure 50 permits a court to grant judgment as
21 a matter of law “when the evidence permits only one reasonable conclusion
22 and the conclusion is contrary to that reached by the jury.” Ostad v. Or. Health
23 Scis. Univ., 327 F.3d 876, 881 (9th Cir. 2003). If substantial evidence supports
24 the jury’s verdict, the court should deny a motion for judgment as a matter of
25 law. Wallace v. City of San Diego, 479 F.3d 616, 624 (9th Cir. 2007) (as
26 amended); Callicrate v. Wadsworth Mfg., Inc., 427 F.3d 1361, 1366 (Fed. Cir.
27 2005). “Substantial evidence is such relevant evidence as reasonable minds
28 might accept as adequate to support a conclusion even if it is possible to draw

1 two inconsistent conclusions from the evidence.” Maynard v. City of San Jose,
2 37 F.3d 1396, 1404 (9th Cir. 1994) (as amended). A court “must view the
3 evidence in the light most favorable to the nonmoving party . . . and draw all
4 reasonable inferences in that party’s favor.” E.E.O.C. v. Go Daddy Software,
5 Inc., 581 F.3d 951, 961 (9th Cir. 2009) (citation omitted, alteration in original).
6 Neither a “mere scintilla” of evidence nor pure speculation is sufficient to
7 sustain a verdict for the prevailing party. See Lakeside-Scott v. Multnomah
8 Cty., 556 F.3d 797, 802-03 (9th Cir. 2009). And because a post-verdict Rule
9 50(b) motion is “a renewed motion,” it is “limited to the grounds asserted in
10 the pre-deliberation Rule 50(a) motion.” Go Daddy, 581 F.3d at 961.

11 **2. Waiver**

12 As an initial matter, Polara argues that “[b]ecause Campbell never raised
13 any arguments regarding patent invalidity in its pre-verdict Rule 50(a) motion,
14 Campbell has waived those arguments.” Dkt. 461 at 24. The Court disagrees.

15 a. Background

16 After Campbell rested its case, Polara moved for judgment on
17 Campbell’s claim that the ’476 Patent was invalid because of Polara’s
18 inequitable conduct. 6 Tr. 123-26.² Polara also moved for judgment on
19 Campbell’s “prior sale or offer for sale” (or “on-sale” bar), “experimental use,”
20 “prior use,” and anticipation and obviousness defenses. Id. at 127. Before
21 hearing argument from the parties on Polara’s motions, the Court stated:

22 I think it’s perfectly appropriate for me to, even just on the
23 basis of hearing those potential arguments, to tell you that I am
24 not going to -- you’ve made it at the appropriate time, so you’ve
25 reserved the ability to argue it after a jury verdict.

26
27 ² Citations to “Tr.” refer to the trial transcript and are preceded by the
28 volume number and followed by the page number.

1 Id. The Court also indicated that it would defer ruling on the experimental use,
2 obviousness, and anticipation issues. Id. The Court did hear argument from
3 Campbell regarding the on-sale bar issue. See id. at 130-33.

4 Campbell subsequently indicated that it wanted to “bring a motion
5 pursuant to Rule 50 concerning the claim of willfulness.” Id. at 135. After
6 hearing argument from Polara, id. at 137-39, the Court “den[ie]d the Rule 50
7 motion with respect to the willfulness argument,” id. at 139. The Court also
8 ruled:

9 I find that there’s sufficient evidence of contested issues of
10 fact on experimental use and on the obviousness and anticipation
11 doctrines as related to the [prior art] devices to put those issue[s] to
12 the jury. I deny Rule 50 motions as to those.

13 I am also going to deny the Rule 50 motion as to the
14 inequitable conduct defense. I find that there are issues of fact both
15 with respect to the defendant’s conduct as well as the intent to
16 deceive or mislead sufficient to take the issue to the jury. . . .

17 Id. at 139-40. The Court subsequently granted Polara’s Rule 50 motion as to
18 the on-sale bar because “no reasonable jury could conclude that the evidence
19 has shown that the claimed invention was subject to a commercial offer for
20 sale on or before that date.” 7 Tr. 6. The Court also noted that Campbell was
21 left with two statutory bar arguments: that over a year before the patent
22 application was filed, the claimed invention was (1) described in a publication
23 and (2) used openly and non-experimentally. Id.

24 b. Relevant Law

25 The same claims or issues on which judgment as a matter of law is
26 sought under Rule 50(b) must have been raised in a pre-verdict motion for
27 judgment under Rule 50(a). See Fed. R. Civ. P. 50(b), Adv. Comm. Notes
28 (1991 Amend.); see also Go Daddy, 581 F.3d at 961 (“Because it is a renewed

1 motion, a proper post-verdict Rule 50(b) motion is limited to the grounds
2 asserted in the pre-deliberation Rule 50(a) motion.”). The Ninth Circuit has
3 explained that this rule limitation serves two purposes. First, the rule
4 “preserves the sufficiency of the evidence as a question of law, allowing the
5 district court to review its initial denial of judgment as a matter of law instead
6 of forcing it to ‘engage in an impermissible reexamination of facts found by the
7 jury.’” Freund v. Nycomed Amersham, 347 F.3d 752, 761 (9th Cir. 2003)
8 (quoting Lifshitz v. Walter Drake & Sons, Inc., 806 F.2d 1426, 1428-29 (9th
9 Cir. 1986)). Second, it ensures that the court and the parties are put on notice
10 of “any alleged deficiencies in the evidence at a time when the opposing party
11 still has an opportunity to correct them.” Id.

12 c. Analysis

13 “Although courts construe strictly the requirement that a motion be
14 made after a case-in-chief, they are generally more liberal about what suffices
15 as a motion for a directed verdict after the close of all the evidence.” Reeves v.
16 Teuscher, 881 F.2d 1495, 1498 (9th Cir. 1989). Thus, Rule 50(b) “may be
17 satisfied by an ambiguous or inartfully made motion for a directed verdict or
18 by an objection to an instruction for insufficient evidence to submit an issue to
19 the jury.” Id. In Reeves, for example, the Ninth Circuit found that the
20 defendants properly preserved a Rule 50(b) motion where the trial court
21 interrupted their argument and told them to renew their motion after the jury’s
22 verdict. Id.

23 Similarly here, the Court elected to “withhold argument” until after
24 Polara had stated the bases for its Rule 50(a) motion, and deferred argument as
25 to the experimental use and the obviousness and anticipation issues until after
26 the jury’s verdict. 6 Tr. 127. The Court did hear argument from both parties as
27 to the on-sale bar, see id. at 128, 130-33, but informed Campbell that it did not
28 “have to be heard now” regarding the inequitable-conduct issue and could

1 brief that issue post-verdict, see id. at 129-30. As such, the Court and the
2 parties understood the bases for any Rule 50(a) motion regarding patent
3 invalidity, and the Court did not hear oral argument from the parties on the
4 issues that it found were properly submitted to the jury. The Court therefore
5 finds that Campbell is not barred from challenging the jury’s invalidity findings
6 in a Rule 50(b) motion.

7 **3. Public Use**

8 The jury found that Campbell failed to prove that the ’476 Patent is
9 invalid because it was in public use for more than one year before Polara filed
10 the patent application. Campbell moves for judgment as a matter of law on this
11 invalidity theory. Dkt. 450 at 30-46. Because substantial evidence shows that
12 Polara’s early use was experimental use necessary to ensure that its invention
13 would work for its intended purpose, Campbell’s motion is denied.

14 a. Background

15 Polara entered the accessible pedestrian signal (“APS”) system market
16 with an eight-wire system called the Navigator. 2 Tr. 22-27.³ Because many
17 intersections did not have the wiring necessary to support an eight-wire device,
18 installation was difficult and labor-intensive. Id. at 26-27. Leslie Beckwith, a
19 design engineer for Polara, testified that he and another Polara engineer,
20 Randy Cruz, began discussing a two-wire version of the Navigator in late 2000
21 or early 2001. 3 Tr. 80-81. John McGaffey, Polara’s president and owner,
22 testified that it took Polara “about three years” to develop a two-wire APS
23 system. 2 Tr. 32. They “did considerable testing in the lab,” 3 Tr. 80, and in
24 Polara’s “parking lot in the back,” 2 Tr. 35-36, to make sure the first prototype
25 worked. Because the first device was “a little bit cobbled together,” Polara then

26 ³ Confusingly, the parties (and the marketplace) refers to these systems
27 generally as “APS” systems while Campbell’s infringing product is branded the
28 “AAPS.”

1 designed something “with a little more permanent construction” that could be
2 installed on the street. 3 Tr. 80. McGaffey also testified that the device needed
3 to be “tested on live intersections—and not just one intersection, it need[ed] to
4 be tested on multiple because every intersection . . . has different equipment,
5 different challenges and problems that it has to overcome.” 2 Tr. 36.

6 In January 2002, McGaffey instructed Polara’s office manager to send a
7 letter to Mark Miller, the traffic engineer for the City of Fullerton, requesting
8 permission to install a prototype system at the intersection of Gilbert Street and
9 Commonwealth Avenue. Id. at 37-38; 3 Tr. 60-63; Tr. Exh. 193. The letter
10 explained that the identified intersection was close to Polara’s plant, which
11 would allow for daily monitoring “during the test phase.” Tr. Exh. 193. Polara
12 also represented that it “would take full responsibility for installing,
13 maintaining and deinstalling the equipment.” Id.

14 After the prototype system was installed at the Gilbert and
15 Commonwealth intersection, Polara noticed that “it wasn’t functioning
16 correctly,” 2 Tr. 41, because the communication between the control unit and
17 push-button station was “not reliable,” 3 Tr. 81. Polara used an oscilloscope to
18 measure the data signal and learned that “a lot of electrical noise” was
19 affecting the signal; Polara uninstalled the system that same day. Id. at 82; see
20 2 Tr. 41-42. Beckwith and Cruz revised the device’s transmitting and receiving
21 circuitry to make it “much more resistant to external sources of interference.” 3
22 Tr. 83-84. The process took “a few months” because they conducted “a variety
23 of experiments in the lab” before they were satisfied that the device could “be
24 used on the street.” Id. at 84. Polara then installed the revised system at the
25 same intersection. Id. at 84-85; 2 Tr. 42. Polara monitored the device on a
26 daily basis—initially twice a day—to see if “it was performing as it was
27 supposed to.” 2 Tr. 42-43; see also 3 Tr. 85-86. At “some point,” Polara
28 became satisfied that the device was performing as it should. 2 Tr. 43.

1 Polara next installed the same product at the intersection of Nutwood
2 Avenue and State College Boulevard in Fullerton. Id. at 44; 3 Tr. 86-87. Polara
3 selected this intersection because it was larger than the one at Gilbert and
4 Commonwealth and “had a much higher pedestrian traffic flow, which meant
5 the buttons would get pushed on a much higher volume.” 2 Tr. 44; see also 3
6 Tr. 87. Right after installation, Polara observed a shortcoming in the way the
7 digital-data signal was being communicated. 3 Tr. 87-88. Polara modified the
8 circuitry inside the prototype to adjust the sensitivity of the receiving circuit.
9 Id. at 88-89. Polara was able to make this modification without uninstalling the
10 system, id. at 89, and McGaffey characterized it as a “minor adjustment,” 2
11 Tr. 45. Polara’s employees visited the intersection several times to test the
12 system’s performance, sometimes using an oscilloscope or other device. 3 Tr.
13 89-90. The prototype remained at Nutwood and State College from fall of 2002
14 to fall of 2003, and Polara “continued to monitor it and consider it a test
15 intersection.” 5 Tr. 181-82.

16 Polara also “felt that it was imperative” to test the device in a “wet
17 environment” because “water can cause all kinds of problems with electronic
18 equipment.” 2 Tr. 46. The City of Burnaby, Canada, which “got a lot of rain”
19 and snow, was “willing to test a system.” Id. at 46-47. McGaffey testified that
20 the weather was “a very, very significant factor” in choosing to test the device
21 in Canada. Id. at 47. Likewise, Beckwith testified that testing in a wet and cold
22 environment “was very important.” 3 Tr. 91. The City of Burnaby arranged for
23 Cobra Electric to install and monitor the test system. 2 Tr. 47. Because Polara
24 did not have control over all of the equipment, it had both entities sign a
25 confidentiality agreement. Id. at 47-49; Tr. Exh. 205.

26 After Polara became satisfied that the two-wire APS system was working
27 “even in the harsher conditions of Canada,” it decided to announce the release
28 of the product at an industry conference in August 2003. 2 Tr. 49. Polara

1 began selling its two-wire Navigator in late September 2003. Id. at 49-51; see
2 Tr. Exh. 203.

3 b. Relevant Law

4 Under 35 U.S.C. § 102(b), a patent is invalid if “the invention was . . . in
5 public use or on sale in this country [] more than one year prior to the date of
6 the application for patent in the United States.” 35 U.S.C. § 102(b).⁴ The
7 public use bar applies if the invention is “ready for patenting” and in “public
8 use.” Invitrogen Corp. v. Biocrest Mfg., L.P., 424 F.3d 1374, 1379 (Fed. Cir.
9 2005). Evidence of experimental use, even if public, may mean that the bar
10 does not apply. EZ Dock v. Schafer Sys., Inc., 276 F.3d 1347, 1351 (Fed. Cir.
11 2002); see also Pfaff v. Wells Electronics, Inc., 525 U.S. 55, 64 (1998) (“[A]n
12 inventor who seeks to perfect his discovery may conduct extensive testing
13 without losing his right to obtain a patent for his invention—even if such
14 testing occurs in the public eye. The law has long recognized the distinction
15 between inventions put to experimental use and products sold
16 commercially.”).

17 A use is experimental if it is designed to “(1) test claimed features of the
18 invention or (2) to determine whether an invention will work well for its
19 intended purpose.” Clock Spring, L.P. v. Wrapmaster, Inc., 560 F.3d 1317,
20 1327 (Fed. Cir. 2009). The Federal Circuit has outlined certain objective
21 factors that may be instructive when determining experimental use, including:
22 (1) the need for public testing; (2) the inventor’s amount of control over the

23 ⁴ Section 102(b) was amended by the Leahy-Smith America Invents Act
24 (“AIA”), Pub. L. No. 112-29, § 3(b)(1), 125 Stat. 284, 285-86 (2011). Because
25 the application for the ’476 Patent was filed on August 5, 2004, the pre-AIA
26 version of the statute applies in this case. See Merck & Cie v. Watson Labs.,
27 Inc., 822 F.3d 1347, 1348 n.1 (Fed. Cir. 2016) (citing In re Giannelli, 739 F.3d
28 1375, 1376 n.1 (Fed. Cir. 2014), cert. denied, No. 16-493, 2017 WL 69719
(U.S. Jan. 9, 2017)).

1 experiment; (3) the nature of the invention; (4) the length of the test period; (5)
2 whether payment was made; (6) whether there was a secrecy obligation; (7)
3 whether records of the experiment were kept; (8) who conducted the
4 experiment; (9) the degree of commercial exploitation during testing; (10)
5 whether the invention reasonably required evaluation under actual conditions
6 of use; (11) whether testing was systematically performed; (12) whether the
7 inventor continually monitored the invention during testing; and (13) the
8 nature of contacts made with potential customers. Id. at 1327.

9 c. Analysis

10 Polara filed its initial application on August 5, 2004. 3 Tr. 12. The Court
11 therefore looks at public use of the '476 Patent before August 5, 2003.

12 According to Campbell, the two-wire device embodying the '476 Patent was in
13 public use as of early 2002, when it was installed at the intersection of Gilbert
14 and Commonwealth. Campbell reasons that by that time, the invention had
15 been reduced to practice because a prototype had operated successfully in
16 Polara's parking lot. See Dkt. 450 at 32-34; Dkt. 481 at 5-9.

17 Campbell does not deserve judgment as a matter of law on the public-use
18 bar. At Campbell's request, see 6 Tr. 7, the jury was instructed on the 13
19 factors identified by the Federal Circuit in Clock Spring, see 7 Tr. 70. Polara
20 produced substantial evidence to support a jury finding in its favor on these
21 factors.

22 The jury heard testimony on the nature of the invention and the need for
23 public testing and evaluation under actual conditions of use. Even though the
24 prototype worked in Polara's parking lot, Polara needed to test the device on
25 live intersections because it was "a life safety device," and "the last thing"
26 Polara wanted was "to put a device on an intersection that's not been
27 thoroughly vetted and potentially have a blind person get the wrong message
28 and walk out in front of the cars and get hit." 2 Tr. 36. The jury also heard that

1 an APS system must be capable of enduring different weather conditions,
2 volumes of pedestrian traffic, and electrical-noise interference. See 2 Tr. 43-45;
3 3 Tr. 91. Polara introduced testimony that most intersections have
4 underground wiring. See 2 Tr. 28-30, 207. The '476 Patent specification
5 expressly contemplates use at actual “traffic light controlled intersection[s]”
6 and the use of “existing pairs of underground wires over which power and data
7 signals are transmitted.” Tr. Exh. 9 at 1, 7. The summary states that the “pairs
8 of wires . . . are, in the preferred embodiment, the existing underground wires
9 that were previously installed for the purpose of connecting the . . . push
10 buttons to a traffic light control cabinet.” Id. at 7.

11 Polara presented evidence on other Clock Spring factors. Fullerton did
12 not pay for the installations at its intersections; indeed, Polara removed the
13 device at the end of the test period. See 2 Tr. 39; 5 Tr. 181-82; see also Tr. Exh.
14 193. Polara retained control over the device; Fullerton merely opened the
15 traffic cabinet so that Polara could install it. 2 Tr. 49. Polara engaged in little if
16 any commercial exploitation of its new two-wire device during the testing
17 period, instead waiting until the completion of testing in Canada to unveil the
18 device at an August 2003 trade show. 2 Tr. 49, 95.⁵

19 Campbell points out that Polara produced no records reflecting its
20 testing, did not have confidentiality agreements with Fullerton employees, and
21 made no modifications to the device after the early stages of testing at the first
22 Fullerton intersection. While this evidence may have been inconsistent with
23 experimental use, it was the jury’s job to weigh the factors and make a
24 determination. Polara presented substantial evidence of experimental use, and
25 the Court cannot second-guess the jury’s determination under Rule 50.

26
27 ⁵ Because the public-use bar is expressly limited by statute to use in this
28 country, the Canada testing itself was not relevant to the jury’s determination.

1 Campbell also contends that Polara’s testing was for commercial
2 development, not experimental use, pointing to Polara’s testing of how the
3 device operated through underground wires, under harsh weather conditions,
4 in large or busy intersections, within range of other electrical devices, and in
5 areas where other conduits are run. Dkt. 481 at 13. The Court disagrees.

6 Polara’s testing the durability of the digital-data signal related to the
7 invention’s claimed features. “Experimentation evidence includes ‘tests needed
8 to convince [the inventor] that the invention is capable of performing its
9 intended purpose in its intended environment.’” EZ Dock, 276 F.3d at 1352
10 (alteration in original) (quoting Gould Inc. v. United States, 579 F.2d 571, 583
11 (Ct. Cl. 1978)); see also Manville Sales Corp. v. Paramount Sys., Inc., 917
12 F.2d 544, 551 (Fed. Cir. 1990) (“When durability in an outdoor environment is
13 inherent to the purpose of an invention, then further testing to determine the
14 invention’s ability to serve that purpose will not subject the invention to a
15 [public use] bar.”). In EZ Dock, for example, two inventors designed a floating
16 dock made of polyethylene and installed one for a customer in a location that
17 experienced “heavier boat traffic and more turbulent water flow.” 276 F.3d at
18 1349. One of the inventors testified that the purpose of the sale was to see how
19 the dock would hold up under more turbulent water conditions. Id. at 1353.
20 The Federal Circuit held that a reasonable jury could find that the sale of the
21 dock was for experimental rather than commercial development because
22 “floating docks, by their nature, must endure all kinds of water conditions,
23 including choppy water created by weather and boating.” Id. Here, the
24 evidence supported the jury’s finding that an APS system must work in a
25 variety of conditions, such as inclement weather, various pedestrian volumes,
26 and environments with different levels of electrical noise.

27 In sum, substantial evidence supports the jury’s rejection of Campbell’s
28 public-use defense because Polara showed that installing the device in

1 Fullerton was an experimental use. Campbell’s motion for judgment as a
2 matter of law on public use is therefore denied.

3 **4. Obviousness**

4 The jury found that Campbell failed to prove that Claims 1 through 4
5 were either anticipated or obvious. Campbell now renews its motion for
6 judgment as a matter of law that Claims 1 through 4 were obvious in light of
7 the prior art, including United States Patent No. 4,851,836 (“Wilkinson”).
8 Dkt. 450 at 54-60. Because the jury relied on substantial evidence to reach its
9 conclusion on the factual issues underlying obviousness, and because the jury’s
10 ultimate conclusion was correct as a matter of law, the Court denies
11 Campbell’s motion.

12 a. Relevant Law

13 A patent is obvious and therefore invalid “if the differences between the
14 subject matter sought to be patented and the prior art are such that the subject
15 matter as a whole would have been obvious at the time the invention was
16 made to a person having ordinary skill in the art to which said subject matter
17 pertains.” 35 U.S.C. § 103.

18 Obviousness is a question of law based on underlying factual findings.
19 Kinetic Concepts, Inc. v. Smith & Nephew, Inc., 688 F.3d 1342, 1356-57 (Fed.
20 Cir. 2012). The Court must presume that the jury resolved the underlying
21 factual disputes in Polara’s favor and leave those presumed findings
22 undisturbed if they are supported by substantial evidence. Id. The Court then
23 examines the jury’s ultimate legal conclusion de novo to see whether it is
24 correct in light of the jury’s presumed factual findings. Id. at 1357.

25 The underlying factual findings are: (1) the scope and content of the
26 prior art; (2) the differences between the claims and the prior art; (3) the level
27 of ordinary skill in the art; and (4) any relevant secondary considerations, such
28 as commercial success, long felt but unsolved needs, and failure of others. KSR

1 Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The Court must consider
2 all four of these factors before reaching a conclusion. Kinetic, 688 F.3d at
3 1360. At all times, the burden is on Campbell to establish by clear and
4 convincing evidence that the patent is obvious. Id.

5 b. Background

6 Neither party requested that the jury answer any special interrogatories.
7 The obviousness portion of the verdict form asked whether Campbell had
8 proven, by clear and convincing evidence, that any of Claims 1 through 4 were
9 invalid due to obviousness. See Dkt. 440 at 2. As to each claim, the jury
10 answered no. Id.

11 At trial, the dispositive issue regarding invalidity was whether an
12 alternating power signal like the signal disclosed in Wilkinson was a digital-
13 data signal. Like the '476 Patent, Wilkinson disclosed a two-wire device. Tr.
14 Exh. 106 at 4 (“[O]nly two wires are needed to power and control the
15 system.”). Wilkinson used an alternating power signal in which the power-
16 supply unit provided a half-wave voltage signal during the DON'T WALK
17 mode and a full-wave voltage signal during the WALK mode. Id. Testimony
18 established that two other pedestrian crosswalk devices, the Campbell
19 Enlightened and Tassimco devices, operated similarly. 6 Tr. 36-41. Campbell's
20 expert Dr. Christopher Jones testified that the full-wave/half-wave signal
21 identified in Wilkinson and these other devices was a digital-data signal. Id.

22 Polara introduced evidence showing that Wilkinson, Campbell
23 Enlightened, and Tassimco did not send digital data. Beckwith, the inventor of
24 the '476 Patent, testified that these devices did not transmit digital data over
25 power like the Polara Navigator two-wire device. 3 Tr. 93-96. McGaffey
26 testified that these devices could turn a light on or off only by manipulating
27 voltage. 3 Tr. 20-21. They could not accomplish the other functions enabled by
28 the '476 Patent. Id. at 23-25; see 2 Tr. 64-68.

1 Polara’s expert Dr. Ian Harris distinguished Wilkinson and, by
2 extension, the Campbell Enlightened and Tassimco devices. Dr. Harris
3 testified that the Campbell Enlightened sends only power and no data. 6 Tr.
4 81-82 (“The Enlightened doesn’t send digital data signals by any normal
5 conventional understanding of digital data signals.”). He noted that the
6 Enlightened device did not have a microcontroller to interpret a digital-data
7 signal. Id. at 82-83. He similarly observed that the Tassimco device and the
8 device described in Wilkinson transmitted only power. Id. at 87-88 (“Q. So in
9 all three—the Wilkinson, Enlightened, and Tassimco—all that’s being sent is
10 power? A. Yes.”).

11 On cross-examination, Dr. Harris maintained that “send[ing] digital
12 signals and power together over two wires was not obvious at that time.” Id. at
13 118. He continued to distinguish Wilkinson, noting that Wilkinson did not
14 disclose encoding a digital signal on top of the power supply. Id. (“Wilkinson
15 sent power or not. It didn’t send digital data.”). Dr. Harris also rejected Dr.
16 Jones’s contention that Wilkinson’s manipulation of the power signal
17 constituted data. Id. (“Nobody would call that digital data. That’s power.”).

18 c. Analysis

19 The jury’s finding of nonobviousness indicates that it credited Polara’s
20 contention that the differences between the prior art asserted by Campbell and
21 the ’476 Patent were significant, and that the prior art did not disclose various
22 elements of Claims 1 through 4. In light of the jury’s validity finding, the Court
23 must infer that the jury found Dr. Harris to be credible and persuasive when
24 testifying that Wilkinson’s power signal was not digital data. “[W]hether the
25 prior art discloses the limitations of a particular claim is a question of fact to be
26 determined by the jury.” Kinetic, 688 F.3d at 1363. Polara presented ample
27 evidence that Wilkinson and the other prior art did not disclose the digital-
28 data-over-power limitation of Claims 1 through 4. The Court must defer to the

1 jury's factual finding. Id. at 1356-57.

2 Campbell argues that a person of ordinary skill in the art would have
3 combined Wilkinson's use of two wires with the use of digital data over power
4 and thus that Claims 1 through 4 are an obvious combination of familiar
5 elements. But Campbell offered no evidence at trial to support this argument.
6 Nor did it define "a person of ordinary skill in the art." It did not ask its expert,
7 Dr. Jones, whether such a person would have been motivated to combine
8 Wilkinson with digital data over power to achieve the advancement offered by
9 the Navigator two-wire device. "[P]ossibility and ease do not automatically
10 translate to motivation." Golden Bridge Tech., Inc. v. Apple, Inc., No. 12-
11 04882, 2015 WL 2064525, at *9 (N.D. Cal. May 1, 2015). And it offered no
12 evidence to rebut or contradict Dr. Harris's testimony that "[t]o encode the
13 digital signal on top of the power was a complicated thing." 6 Tr. 118.

14 The Court understands that the idea of transmitting digital data over a
15 power line was not new at the time of the '476 Patent. But "a patent composed
16 of several elements is not proved obvious merely by demonstrating that each of
17 its elements was, independently, known in the prior art." KSR, 550 U.S. at
18 418. "[I]nventions in most, if not all, instances rely upon building blocks long
19 since uncovered, and claimed discoveries almost of necessity will be
20 combinations of what, in some sense, is already known." Id. at 418-19. Put
21 differently, "[a]n invention may be a combination of old elements disclosed in
22 multiple prior art references." Plantronics, Inc. v. Aliph, Inc., 724 F.3d 1343,
23 1354 (Fed. Cir. 2015) (citing Cross Med. Prods, Inc. v. Medtronic Sofamor
24 Danek, Inc., 424 F.3d 1293, 1321 (Fed. Cir. 2005)). Because the prior-art
25 references did not disclose using digital data over power to transmit digital
26 data from the control unit to the various message generating means, the '476
27 Patent did more than just combine known elements.

28 Finally, the jury was instructed to consider secondary considerations

1 indicating nonobviousness, including whether the products covered by the
2 invention were commercially successful due to the claimed invention's merits,
3 whether a long-felt but unsolved need was resolved by the claimed invention,
4 and whether others copied the claimed invention. 7 Tr. 74-75.

5 Substantial evidence supports the jury's finding in Polara's favor on
6 these issues. Polara introduced evidence that its two-wire Navigator device
7 resolved a long-felt but unsolved need for a two-wire device with the features
8 of its eight-wire Navigator system such as a locate tone, audible messages, and
9 a vibrating button. 2 Tr. 22-27. Many of Polara's potential customers resisted
10 installing an eight-wire device because their existing intersections had only two
11 wires, meaning that wiring had to be added at considerable expense. *Id.* at 26-
12 29. Polara worked for almost three years to develop a device that would use
13 the two existing wires and not require additional wiring. *Id.* at 28, 32.

14 Polara also introduced evidence showing that its two-wire Navigator
15 device enjoyed substantial commercial success because the claimed invention,
16 i.e., the use of digital data over power, enabled them to offer the functionality
17 of an eight-wire system with only two wires. Polara's customers were "very
18 happy to see" the two-wire device and "preferred it over the eight-wire." *Id.* at
19 52. Finally, Polara introduced evidence suggesting that Campbell introduced
20 its infringing two-wire accessible pedestrian system to compete with Polara's
21 Navigator two-wire device. *Id.* at 70-71; 3 Tr. 28-29, 118, 120-22.

22 This motion is not a vehicle for the Court to second-guess the jury's
23 assessment of the evidence. The jury's finding of nonobviousness was
24 supported by substantial evidence and the jury did not misapply the relevant
25 law to the facts. Therefore, Campbell has not carried its burden of overcoming
26 the presumption of validity, and its motion for judgment as a matter of law on
27 obviousness must be denied.

28 ///

1 **5. Prior Publication**

2 The jury found that Campbell failed to prove that the '476 Patent is
3 invalid because it was described in three publications more than one year
4 before the patent application was filed. Campbell asks the Court to overturn
5 the jury's verdict. Dkt. 450 at 54-57. The Court declines to do so because the
6 evidence showed that the three publications did not disclose each and every
7 element of the '476 Patent.

8 a. Background

9 At trial, Campbell introduced a March 2003 survey conducted by the
10 United States Access Board. 5 Tr. 150-51; Tr. Exh. 331. The survey included
11 Polara's original eight-wire Navigator and stated that the

12 [m]anufacturer is developing a model that operates with only two
13 wires to the pushbutton and is programmable after installation by a
14 traffic engineer using a handheld PDA type device. The new
15 model will have the capability to alternate signal sounds, to
16 countdown pedestrian clearance interval and present a signal at
17 the far end of the crosswalk only. It is expected to be available by
18 fall 2003.

19 Tr. Exh. 331 at CAMP024409-10; see 5 Tr. 150-52. An April 2003 report
20 includes an identical entry. 2 Tr. 196-98; Tr. Exh. 311 at 1, 29-31. McGaffey
21 testified that he had provided this entry's information and had been talking to
22 authors of various industry publications about Polara's development of a two-
23 wire APS system. See 2 Tr. 197-99.

24 Campbell also introduced a May 2003 report containing an entry on the
25 eight-wire Navigator. Id. at 200-03; Tr. Exh. 312 at 1, 233-34. The
26 "comments" section stated:

27 Manufacturer is developing a model that operates with only two
28 wires from the intersection traffic control cabinet to the pushbutton

1 and is programmable after installation by an engineer using a
2 handheld PDA type device. The new model will have the
3 capability to synchronize sounds, alternate sounds, mute all
4 sounds except the activated crosswalks, to verbally countdown
5 pedestrian clearance interval or present a signal at the far end of
6 the crosswalk only.

7 Tr. Exh. 312 at 234.

8 b. Relevant Law

9 A patent is invalidated as anticipated if “the invention was patented or
10 described in a printed publication” more than one year before the patent
11 application was filed. 35 U.S.C. § 102(b). To be anticipatory, the prior art
12 reference must “explicitly or inherently” disclose each and every element of the
13 claimed invention. In re Gleave, 560 F.3d 1331, 1334 (Fed. Cir. 2009). An
14 anticipatory prior art reference must also enable “one of skill in the art to
15 practice an embodiment of the claimed invention without undue
16 experimentation.” Am. Calcar, Inc. v. Am. Honda Motor Co., 651 F.3d 1318,
17 1341 (Fed. Cir. 2011); see also In re Donohue, 766 F.2d 531, 533 (Fed. Cir.
18 1985) (“Such possession is effected if one of ordinary skill in the art could have
19 combined the publication’s description of the invention with his own
20 knowledge to make the claimed invention.”). Finally, the party asserting
21 invalidity must prove anticipation by clear and convincing evidence. Orion IP,
22 LLC v. Hyundai Motor Am., 605 F.3d 967, 975 (Fed. Cir. 2010).

23 c. Analysis

24 The March and April 2003 publications stated that Polara “is developing
25 a model that operates with only two wires to the pushbutton and is
26 programmable after installation by a traffic engineer using a handheld PDA
27 type device.” Tr. Exh. 331 at CAMP024409-10; Tr. Exh. 311 at 31. Similarly,
28 the May 2003 publication stated that Polara “is developing a model that

1 operates with only two wires from the intersection traffic control cabinet to the
2 pushbutton and is programmable after installation by an engineer using a
3 handheld PDA type device.” Tr. Exh. 312 at 234. These publications also
4 contained pictures and diagrams of, and specifications and installation
5 instructions for, Polara’s original eight-wire Navigator. Id. at 233-34; Tr. Exh.
6 311 at 29-31; Tr. Exh. 331 at CAMP024408-10.

7 Campbell argues that the original Navigator and the invention claimed
8 in the ’476 Patent are virtually identical with the only “alleged innovation”
9 being “communication between a control unit and pushbutton over a single
10 pair of wires.” See Dkt. 450 at 54. According to Campbell, the information on
11 the Navigator coupled with the statements about the two-wire model in
12 development discloses every element of Claims 1 through 4. See id. at 54-57.
13 Campbell does not dispute that the three publications at issue do not disclose
14 transmitting both power and digital-data signals over two wires. Instead,
15 Campbell argues that this limitation is inherent in each publication, because
16 “communication of digital signals over a single pair of wires was ‘obvious’ to
17 one skilled in the art.” Id. at 57.

18 This argument fails. As previously discussed, Polara presented
19 substantial evidence that using digital data over power to transmit digital data
20 from the control unit to the push buttons was nonobvious. As such, substantial
21 evidence supports a finding that the March, April, and May 2003 publications
22 did not disclose all the limitations of Claims 1 through 4. See RCA Corp. v.
23 Applied Digital Data Sys., Inc., 730 F.2d 1440, 1446 (Fed. Cir. 1984) (holding
24 that dependent claim “cannot be anticipated” where the independent claim “is
25 not anticipated”).

26 The jury’s obviousness verdict also supports a finding that the
27 publications were not enabling. Campbell offered little evidence that would
28 demonstrate how each of the three industry publications enabled one of

1 ordinary skill in the art to practice the claimed invention. Campbell questioned
2 McGaffey about whether “people with ordinary skill in the art” reading the
3 May 2003 entry on the Navigator would understand that the two-wire device
4 would have a push button station, control system, and control unit. See 3 Tr.
5 30, 33-34. However, other than the examples of “Mr. Beckwith or these traffic
6 engineers, somebody who knew what these devices were about, somebody
7 who would actually read those documents,” id. at 33-34, Campbell did not
8 seek to define what constitutes a person of ordinary skill in the art. Nor did
9 Campbell discuss the March, April, and May 2003 publications with Dr. Jones
10 or Dr. Harris.

11 “Typically, testimony concerning anticipation must be testimony from
12 one skilled in the art and must identify each claim element, state the witnesses’
13 interpretation of the claim element, and explain in detail how each claim
14 element is disclosed in the prior art reference.” Koito Mfg. Co. v. Turn-Key-
15 Tech, LLC, 381 F.3d 1142, 1151-52 (Fed. Cir. 2004) (quoting Schumer v. Lab.
16 Computer Sys., Inc., 308 F.3d 1304, 1315 (Fed. Cir. 2002)). Dr. Jones’s
17 general testimony regarding other prior art was far from substantial evidence of
18 how the 2003 publications disclosed each claim. See Schumer, 308 F.3d at
19 1316 (finding that declaration setting forth purported programmer of software
20 driver’s “understanding of the operation and steps performed by the [] driver”
21 and description of “what he considered to be known to one of ordinary skill
22 prior to [patentee’s] invention” was not clear and convincing evidence that
23 driver disclosed “each and every limitation” of claim). The jury therefore had
24 substantial evidence from which to conclude that Campbell had not met its
25 burden of showing, by clear and convincing evidence, that the 2003
26 publications anticipated the ’476 Patent. Accordingly, the motion for judgment
27 as a matter of law as to prior publication is denied.

28 ///

1 **6. Willfulness**

2 A week before trial began, the Supreme Court decided Halo Electronics,
3 Inc. v. Pulse Electronics, Inc., --- U.S. ---, 136 S. Ct. 1923 (2016), and changed
4 the framework for awarding enhanced damages. Before Halo, a patentee
5 seeking enhanced damages first needed to show by clear and convincing
6 evidence that the infringer acted despite an objectively high likelihood that its
7 actions infringed a valid patent. Id. at 1930 (citing In re Seagate Technology,
8 LLC, 497 F.3d 1360, 1371 (2007) (en banc)). This objective prong tended not
9 to be met where an accused infringer had a reasonable defense to infringement.
10 See Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc., 682 F.3d
11 1003, 1005-06 (Fed. Cir. 2012). Second, the patentee had to show that the risk
12 of infringement was either known or so obvious that it should have been
13 known to the accused infringer. Seagate, 497 F.3d at 1371.

14 Halo criticized the objective recklessness requirement, reasoning that it
15 “excludes from discretionary punishment many of the most culpable
16 offenders,” and faulted the requirement for “making dispositive the ability of
17 the infringer to muster a reasonable (even though unsuccessful) defense at the
18 infringement trial.” 136 S. Ct. at 1932, 1932-33. Halo explained that an
19 infringer’s subjective bad faith alone could support an enhanced damages
20 award. Id. at 1933. Moreover, Halo made clear that it is the infringer’s state of
21 mind at the time of the challenged conduct that matters, without regard to any
22 later reasonable defense at trial. Id.

23 In this case, the jury was instructed that it must find by a preponderance
24 of the evidence that Campbell’s infringement of the ’476 Patent was egregious
25 measured against Campbell’s knowledge at the time of the infringement. 7 Tr.
26 93. The jury was also told that “egregious conduct” could be described as
27 “willful, wanton, malicious, bad faith, deliberate, consciously wrongful,
28 flagrant, or characteristic of a pirate.” Id. The jury was then instructed that it

1 must consider the totality of the circumstances when determining whether
2 Campbell acted egregiously, including whether Campbell intentionally copied
3 Polara's technology covered by the '476 Patent, whether Campbell made a
4 good-faith effort to avoid infringing the patent, whether Campbell reasonably
5 believed it had a defense to infringement at the time it engaged in the
6 infringing conduct, or whether Campbell relied on a legal opinion that was
7 well supported and believable. Id. at 94-95.

8 Campbell's motion for judgment as a matter of law raises two primary
9 arguments with respect to the jury's willfulness finding. First, Campbell argues
10 that the jury's verdict was tainted by the Court's instructions and counsel's
11 remarks about Judge Carney's infringement ruling. Dkt. 450 at 66-68. Second,
12 Campbell argues that the evidence does not support the jury's finding of
13 willfulness. Id. at 68-80. Neither argument is persuasive.

14 a. The Court's Instructions and Polara's Arguments

15 In its initial instructions, the Court told the jury about Judge Carney's
16 infringement finding but warned the jurors that Judge Carney's infringement
17 determination should have "absolutely no impact" on its deliberations:

18 In proceedings before trial it was determined that certain
19 pedestrian crosswalk signal systems products made and distributed
20 by Campbell and known as the Campbell AAPS products
21 infringed the '476 patent. It was not determined, however, whether
22 the '476 patent is valid or whether it is enforceable or whether any
23 infringement by Campbell was willful or what damages, if any,
24 Polara is entitled to.

25 All of these will be questions for you to decide, and the
26 determination that the Campbell AAPS products infringed the
27 '476 patent should have absolutely no impact on how you decide
28 the questions that you are asked to decide; nor does my

1 determination on any question presented to me mean that I have
2 any opinion on any of the questions that are for you to decide.

3 1 Tr. 10-11. The Court reiterated these instructions during final instructions:

4 In proceedings before trial it was determined that certain
5 pedestrian crosswalk signal systems products made and distributed
6 by Campbell infringed claims 1, 2, 3, and 4 of the '476 patent. It
7 was not determined, however, whether the '476 patent is valid or
8 whether it is enforceable or whether any infringement by Campbell
9 was willful or what damages, if any, Polara is entitled to. All of
10 these questions are questions for you to decide, and the prior
11 determination must not have any impact on how you decide the
12 questions you are asked to decide.

13 7 Tr. 52-53. Later in its final instructions, the Court clarified that Campbell's
14 infringement could be considered as part of its discussion on damages and
15 willfulness. Id. at 57-58.

16 This clarification was discussed shortly before the final instructions were
17 given. Polara's counsel argued that the instructions were unclear about
18 whether the jury could consider, as part of its willfulness determination,
19 Campbell's continued sales of its AAPS device after Judge Carney's
20 infringement ruling. Id. at 18-20. The Court agreed, then discussed with
21 counsel how to modify the language to address Polara's concern yet make
22 clear that the jury could not consider the infringement ruling for purposes of its
23 other determinations. Id. at 20. At the conclusion of this colloquy, Campbell
24 did not object to the Court's proposed language. Id.⁶

25
26 ⁶ The full discussion follows:

27 THE COURT: All right. I'm inclined to agree
28 [with Polara]. I'm going to stop the sentence: All of

1 Judge Carney's finding that Campbell infringed the '476 Patent was
2 submitted to the jury as a stipulated fact. 3 Tr. 12. The Court told the jury that
3 "the Court has determined that Campbell's accused product, the AAPS,
4 directly infringes claims 1 through 4 of U.S. patent number 7,145,476. That's
5 the Beckwith '476 patent." Id. Later, Polara's counsel asked Philip Tate,

6 these questions are for you to decide, period.

7 MR. TATE: Your Honor, for the record, if I
8 may.

9 THE COURT: Yes, you may.

10 MR. TATE: It's certainly a proper instruction
11 with regard to the [inequitable conduct defense], and it
12 is an improper [sic] instruction with regard to validity.
13 So—

14 THE COURT: You want me to give—you want
15 me to phrase it that way: The determination that
16 Campbell's products infringed the '476 patent should
17 have no impact on how you decide the questions of
18 invalidity and unenforceability?

19 MR. TATE: Yes.

20 THE COURT: I can do that.

21 MR. DILGER: I think it then would need to
22 read: But may be considered as part of your decision
23 on willfulness.

24 THE COURT: And damages, I think.

25 MR. DILGER: And damages, yes.

26 THE COURT: Mr. Tate, any comment on that?

27 MR. TATE: No, Your Honor.

28 7 Tr. 20.

1 Campbell's owner and president, about Judge Carney's infringement ruling:

2 Q. Now, you did get at least one other opinion on your
3 device, however; didn't you?

4 A. I personally do not recall getting an additional opinion.

5 Q. You got one in this litigation.

6 A. Yes.

7 Q. A federal judge in this building said that your device
8 infringes.

9 Id. at 166. The Court sustained Campbell's objection to this question and
10 refused Polara's request for a sidebar. Id. at 167. Polara then asked Tate
11 whether he "continue[d] to sell [Campbell's AAPS] device to this day." Id.
12 Tate answered, "I do." Id.

13 Later, in closing argument, Polara told the jury it should consider
14 Campbell's conduct after Judge Carney's infringement ruling as evidence of
15 Campbell's willfulness:

16 [W]e know exactly how Campbell responds when they do in fact
17 know that they have an infringing device. How do we know that?
18 Because they did get another opinion. They got an opinion from a
19 federal judge in this building two years ago.

20 What did he tell them? He told them: Campbell, your
21 product infringes the '476 patent. That's what he said. What did
22 Campbell do? What did they do? They did what they had been
23 doing for the previous four years. They continued to make and
24 they continued to sell the infringing product.

25 If that's not recklessness, what is? At that point they didn't
26 even—it wasn't even a mystery. They were told it infringes, and
27 they said: We don't care. We're barrelling forward. And that's
28 what they've done.

1 Ladies and gentlemen, that is willfulness, about as good as it
2 gets. So we have infringement of a valid patent, and that
3 infringement is willful.

4 7 Tr. 124.

5 Campbell's argument that the Court's instructions tainted the jury is
6 misplaced. Campbell chose to continue sales of its two-wire device after Judge
7 Carney's ruling. This was among the "totality of the circumstances" that was
8 appropriately considered by the jury to assess the egregiousness of Campbell's
9 conduct. See Avocent Huntsville Corp. v. ClearCube Tech., Inc., No. 03-
10 02875, 2006 WL 2109503, at *27 (N.D. Ala. July 28, 2006) (finding that
11 defendant's continued sale of accused products after court granted plaintiff's
12 motion for partial summary judgment on infringement "may fall under the
13 rubric of the 'totality of the circumstances' test, tending to show [defendant's]
14 infringement was (and continues to be) willful"); see also Applied Med.
15 Resources Corp. v. U.S. Surgical Corp., 353 F. Supp. 2d 1075, 1079 (C.D. Cal.
16 2004) (finding that jury drew a reasonable inference of willful behavior from
17 infringer's continued sale of infringing device after summary judgment ruling
18 of infringement).

19 Campbell also points to its invalidity and unenforceability defenses,
20 arguing that those defenses gave it "reasonable grounds" to continue selling a
21 two-wire device. Dkt. 450 at 67. But the Court's instructions enabled Campbell
22 to continue to argue these defenses to the jury, both before and after Judge
23 Carney's infringement ruling. See 7 Tr. 94 (instructing jury that it should
24 consider "whether Campbell reasonably believed that it had a substantial
25 defense to infringement and reasonably believed that the defense would be
26 successful if litigated" when determining whether Campbell acted egregiously).
27 The jury simply rejected these defenses.

28 Nor is the Court persuaded that Polara's questioning of Tate and

1 argument about Campbell's continued sales after Judge Carney's infringement
2 ruling was "improper and prejudicial." As the excerpt above reflects, the Court
3 sustained an objection to Polara's questioning about Campbell's continued sale
4 of an infringing product and allowed Polara to elicit only that Campbell's sales
5 of an infringing product continued after Judge Carney's summary judgment
6 ruling. And Polara's closing argument was just that—argument based on facts
7 the jury heard during trial, facts that included Judge Carney's infringement
8 ruling and Campbell's decision to continue selling its product after that ruling.

9 Moreover, nothing prevented Campbell from vigorously and steadfastly
10 maintaining that it reasonably believed that it had a defense to Polara's charges
11 of infringement. As Polara points out, Campbell did just that, arguing that
12 Tate believed that Campbell's products did not infringe and that the '476
13 Patent was invalid. See 7 Tr. 166-67.

14 Campbell also argues that the special verdict form should have required
15 the jury to consider its willfulness throughout the period of alleged
16 infringement. Dkt. 450 at 67. Campbell's revised special verdict form
17 contained an interrogatory that would have asked the jury to specify the time
18 period during which Campbell's infringement was egregious. See Dkt. 414 at
19 9. On the morning of final argument and jury instructions, the Court provided
20 counsel with a draft special verdict form for their review and comment. 7 Tr. 5
21 ("I will hand out for you a draft special verdict form. You may take a quick
22 look at it. If you have any concerns about it, I want to hear those."). A short
23 while later, each side raised their respective concerns about the Court's verdict
24 form. Id. at 38-43. Campbell did not raise any concerns about the omission of
25 its proposed interrogatory about the time period. By failing to raise its concerns
26 and explain to the Court why omitting an interrogatory about the specific time
27 period would lead to legal error, Campbell has waived its objection. See
28 United States v. Parsons Corp., 1 F.3d 944, 945 (9th Cir. 1993) (holding that

1 counsel waived objection to verdict form because although it was clear that
2 counsel preferred a different form, counsel “did not tell the court that it would
3 be committing an error of law or an abuse of discretion if it did not adopt
4 [counsel’s] approach”).⁷

5 Moreover, any contention that evidence of Campbell’s willfulness was
6 limited to after Campbell received Judge Carney’s infringement ruling is
7 misplaced. As detailed below, the jury heard evidence that Campbell’s
8 egregious conduct began much earlier, when it decided to go ahead with a two-
9 wire AAPS despite knowledge of the ’476 Patent. It is simply not the case that
10 evidence of Campbell’s willfulness was limited to its decision to continue sales
11 of its infringing product after Judge Carney’s ruling. As a result, any error in
12 omitting Campbell’s proposed interrogatory was harmless.

13 b. The Jury’s Finding of Willfulness

14 As an initial matter, the parties dispute whether the jury’s finding is
15 dispositive of the issue of willfulness. Campbell argues that the jury’s finding is
16 only advisory. Dkt. 450 at 68 (“[T]he Jury’s tainted rendering is advisory only
17 and, of course, the Court now reviews the evidence.”). Polara argues that the
18 jury’s willfulness finding is not advisory but may only be overturned if the
19 evidence, construed in the light most favorable to Polara, permits only a
20 conclusion contrary to the jury’s verdict. Dkt. 461 at 8.

21 ⁷ Ninth Circuit law applies to this issue. See Bose Corp. v. JBL, Inc., 274
22 F.3d 1354, 1360 (Fed. Cir. 2001) (“We apply regional circuit law to procedural
23 questions that are not themselves substantive patent law issues so long as they
24 do not: (1) pertain to patent law; (2) bear an essential relationship to matters
25 committed to our exclusive control by statute; or (3) clearly implicate the
26 jurisprudential responsibilities of this court in a field within its exclusive
27 jurisdiction.” (citations omitted)); see also Lazare Kaplan Int’l, Inc. v.
28 Photocrite Techs., Inc., 628 F.3d 1359, 1372 (Fed. Cir. 2010) (applying
Second Circuit law to determine whether a litigant objected to jury instruction
in manner set forth in Fed. R. Civ. P. 51).

1 Polara is correct. After Halo, the Federal Circuit has reiterated that “the
2 factual components of the willfulness question should be resolved by the jury.”
3 WBIP, LLC v. Kohler Co., 829 F.3d 1317, 1341 (Fed. Cir. 2016); see
4 Greatbatch Ltd. v. AVX Corp., No. 13-723, 2016 WL 7217625, at *2 (D. Del.
5 Dec. 13, 2016). The jury’s finding that Campbell was subjectively willful
6 establishes the predicate of willful misconduct; thus the inquiry moves to the
7 stage at which the district court exercises its discretion. See Innovention Toys,
8 LLC v. MGA Entm’t, Inc., --- F. App’x ---, 2016 WL 4151240, at *2 (Fed. Cir.
9 Aug. 5, 2016); see also Dominion Res. Inc. v. Alstom Grid, Inc., No. 15-224,
10 2016 WL 5674713, at *19 (E.D. Pa. Oct. 3, 2016).

11 Considering the totality of the circumstances, the jury had substantial
12 evidence on which to conclude that Campbell’s conduct was willful by a
13 preponderance of the evidence. Tate testified that Campbell developed its
14 AAPS in response to Polara’s two-wire system. 3 Tr. 121. He acknowledged
15 that Campbell did not have the technology to compete with Polara’s two-wire
16 Navigator when it was introduced. Id. at 123. He also stated that Campbell
17 “needed” a product that would compete with Polara’s two-wire Navigator. Id.
18 at 121. The jury could have relied on those statements to conclude that
19 Campbell intentionally copied Polara’s two-wire device.

20 Tate also provided evidence from which the jury could have concluded
21 that Campbell was aware of a significant risk that Campbell’s AAPS would
22 infringe the ’476 Patent. Tate testified that he discussed the ’476 Patent with
23 Dr. Richard Wall of the University of Idaho and that they considered using a
24 three-wire device because it would be “cleaner.” Id. at 142-43. In an email
25 exchange, Dr. Wall told Tate that there were similarities between Campbell’s
26 proposed AAPS and the ’476 Patent. Id. at 140-41; Tr. Exh. 10. Dr. Wall
27 shared with Tate the advice of Mike Jones, a University of Idaho patent
28 lawyer; Tate also testified that he spoke directly with Jones. 3 Tr. 144, 151.

1 Tate admitted that Jones did not give Campbell’s proposed AAPS a “clean bill
2 of health” in May 2008. Id. at 146. To the contrary, Jones identified “potential
3 problems” and “uncertainty.” Id. at 146-47; see Tr. Exh. 316 at 2.

4 Tate also received an opinion from Bob Shaver, an intellectual property
5 attorney. 3 Tr. 131. Shaver shared with Tate an analysis of prior art prepared
6 by Joe Lindsey, who apparently worked with Shaver. Id. at 155-56; Tr. Exh.
7 317. Tate admitted that this was the only written communication he received
8 from any lawyer about the ’476 Patent. 3 Tr. 155-56. Lindsey’s analysis began
9 with the following preamble:

10 All but one claim in the [’476] patent limit to the 2-wire
11 configuration as previously discussed. Claim 11 does not have this
12 limitation.

13 Not including claim 11, as long as the system does not
14 contain 2-wire outputs ports interfacing with the push button
15 stations, any system you make is not covered by this patent.

16 Tr. Exh. 317 at 1. Lindsey proceeded to discuss Claim 11 at some length and
17 ultimately asked Tate for more information about the prior art as it existed in
18 2004 before concluding, “[w]e will need to establish this to provide a viable
19 argument to the validity of claim 11 of this patent.” Id. at 2.

20 One fair reading of Lindsey’s analysis—the one urged by Polara—is that
21 he assumed that Campbell did not intend to adopt a two-wire device. See 3 Tr.
22 157; 7 Tr. 121-22. The Court must assume that the jury adopted this view of
23 Lindsey’s analysis; if it did so, then Lindsey’s analysis offers little support for
24 an argument that Campbell acted in good faith or had a reasonable belief that
25 Polara’s ’476 Patent would be invalidated.

26 Polara argues that the opinions Campbell received were incompetent
27 because they neither considered the AAPS nor contained a detailed analysis of
28 validity or infringement. Dkt. 461 at 11. To the contrary, according to Polara,

1 the evidence suggests that Campbell was repeatedly warned that it should
2 avoid its two-wire design. Id. The Court agrees.

3 The jury could have also concluded that there was sparse evidence
4 showing that Campbell took any remedial action. It appears from the
5 testimony and exhibits that Campbell rejected Dr. Wall's suggestion to design
6 around the '476 Patent by using a three-wire design for reasons never
7 articulated at trial. The jury could have easily concluded that Campbell's
8 decision emanated from the fact that its customers, like Polara's, wanted a
9 product that could be installed using intersections' existing two-wire
10 infrastructure. Likewise, as noted above, the jury heard that Campbell
11 continued to sell an infringing product even after Judge Carney's infringement
12 ruling.

13 In sum, substantial evidence adequately supports the jury's finding that
14 Campbell acted willfully when it decided to go ahead with its two-wire device
15 despite knowledge of the '476 Patent. Taken together, the evidence of its
16 knowledge of the '476 Patent, the evidence indicating that its lawyers had
17 concerns about the '476 Patent, the inadequacy of evidence demonstrating that
18 Campbell reasonably believed the '476 Patent was invalid, and Campbell's
19 failure to take remedial measures supported the jury's conclusion that the
20 totality of the circumstances demonstrated egregious conduct. Campbell's
21 motion for judgment as a matter of law on this finding is denied.

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1 **B. Campbell’s Inequitable Conduct Defense**⁸

2 Campbell’s inequitable conduct defense is based on Polara’s alleged
3 failure to disclose material prior art references to the PTO—namely,
4 Wilkinson, the Campbell Enlightened device, and the Tassimco device. Dkt.
5 450 at 57-66.⁹ Specifically, Campbell argues that those references would have
6 shown the PTO that transmitting power and data signals over a single pair of
7 wires was obvious. Id. at 61-64. Polara counters that the Tassimco and
8 Enlightened devices were “indistinguishable” from Wilkinson, which was
9 directly considered by the patent examiner. Dkt 461 at 52-54. Polara also
10 contends that the jury’s rejection of Campbell’s invalidity defenses
11 “undermines significantly Campbell’s arguments regarding materiality.” Id. at
12 54. Finally, Polara asserts that Campbell has failed to present clear and
13 convincing evidence of intent to deceive the PTO. Id. at 56-57.

15 ⁸ Campbell argues in its motion for judgment as a matter of law that
16 Polara’s inequitable conduct makes the ’476 Patent unenforceable. See Dkt.
17 450 at 57-66. Because the jury’s finding of no inequitable conduct was
18 advisory, see 6 Tr. 134, the Court construes Campbell’s argument as a request
19 for entry of judgment on inequitable conduct.

20 ⁹ The Court rejects Campbell’s attempt to broaden its inequitable
21 conduct defense to include an allegation that Polara failed to disclose its
22 alleged public use of the claimed invention to the patent examiner. As Polara
23 correctly points out, such an allegation is not part of Campbell’s inequitable
24 conduct defense. See Dkt. 199 at 8-14. In any event, as discussed in Section
25 II.A.3, the jury found that Polara’s installation of the prototype system in
26 Fullerton was not a public use as contemplated by 35 U.S.C. § 102(b), and the
27 Court, having considered the record, agrees with the jury’s finding. See
28 Trading Techs. Int’l, Inc. v. eSpeed, Inc., 595 F.3d 1340, 1362 (Fed. Cir. 2010)
(affirming district court’s finding that patentee was not required to disclose
inventor’s confidential testing of custom software embodying claimed
invention because reasonable examiner “would not have regarded such
experimental use as material”).

1 **1. Legal Standard**

2 Federal Rule of Civil Procedure 52(a) requires district courts to make
3 findings of fact in any action “tried on the facts without a jury or with an
4 advisory jury.” Fed. R. Civ. P. 52(a)(1). The court must also “find the facts
5 specially and state its conclusions of law separately.” Id. The district court’s
6 findings must “be explicit enough to give the appellate court a clear
7 understanding of the basis of the trial court’s decision, and to enable it to
8 determine the ground on which the trial court reached its decision.” Zivkovic
9 v. S. California Edison Co., 302 F.3d 1080, 1090 (9th Cir. 2002) (quoting
10 Alpha Distrib. Co. of California v. Jack Daniel Distillery, 454 F.2d 442, 453
11 (9th Cir. 1972)). However, the court “is not required to base its findings on
12 each and every fact presented at trial.” Simeonoff v. Hiner, 249 F.3d 883, 891
13 (9th Cir. 2001). Finally, the court must resolve conflicting testimony on
14 relevant issues. Zivkovic, 302 F.3d at 1090.

15 **2. Findings of Fact**

16 The Court, having heard live testimony and duly considered the
17 evidence presented at trial, the parties’ briefing and the contentions and
18 arguments of counsel, makes the following findings of fact.¹⁰

19 a. Background on Prior Art

20 On February 29, 2000, Polara’s Arizona distributor, Phoenix Highway,
21 faxed Polara a specification sheet for Campbell’s Enlightened device and asked
22 if Polara made a similar product. 2 Tr. 155-59, 172-73; Tr. Exh. 184-A.
23 McGaffey kept the document in a file in his desk, which contained brochures
24 and other information from trade shows about competitor’s products. 2 Tr. 68-
25 69, 153-54; Tr. Exh. 184. The specification sheet states that the wiring

26 ¹⁰ Any finding of fact that constitutes a conclusion of law is hereby
27 adopted as a conclusion of law, and any conclusion of law that constitutes a
28 finding of fact is hereby adopted as a finding of fact.

1 schematic for the Enlightened device “is to be used in conjunction with the
2 Tassimco PIU 500 unit.” Tr. Exh. 184-A at 2; 2 Tr. 159.

3 McGaffey testified that he first learned of the Tassimco PIU500 when
4 Tassimco approached Polara about making its Bulldog button compatible with
5 the PIU500. 2 Tr. 159, 177-78. McGaffey could not recall whether this
6 occurred before or after he received the fax from Phoenix Highway. Id. at 159-
7 60.

8 On March 7, 2000, McGaffey called Tassimco’s Conrad Di Pietro to ask
9 to look at Tassimco’s interface module for illuminated push buttons. 2 Tr. 174-
10 76. On March 8, 2000, Di Pietro sent McGaffey a fax attaching a product
11 description and schematic of the light kit for the push button. Id.; Tr. Exh. 186.
12 McGaffey gave this information to his engineers. 2 Tr. 177. McGaffey testified
13 that Van Cruz “had already been thinking about or started to sketch out the
14 Navigator [two]-wire device” in early 2000—before McGaffey contacted Di
15 Pietro about the PIU500. Id. at 194.

16 In 2002, Polara received U.S. Patent No. 6,340,936 (the “’936 Patent”)
17 for its eight-wire Navigator. Id. at 144-46; Tr. Exh. 105. Wilkinson appears on
18 the face of the ’936 Patent. 2 Tr. 146-147; Tr. Exh. 105 at 1. McGaffey testified
19 that it was “certainly possible” that he reviewed Wilkinson around the time the
20 ’936 Patent was issued. 2 Tr. 147. He testified that it was his regular practice to
21 provide copies of the cited references to the inventors and ask them to review
22 the references but he could not remember if he had done so. Id. at 149-50.
23 Beckwith testified that he “probably” reviewed Wilkinson after the ’936 Patent
24 was issued. 3 Tr. 100-01.

25 b. Patent Prosecution – Amendments

26 Moreland Fischer was Polara’s attorney who prosecuted the application
27 that resulted in the issuance of the ’476 Patent. See 2 Tr. 54-55; Tr. Exh. 109 at
28 32-33. McGaffey testified that he and Beckwith first met with Fischer in early

1 2003. 2 Tr. 203-04. McGaffey estimated that he met with Fischer around 3 or 4
2 times. Id. Fischer reported directly to McGaffey for “all important decisions”
3 regarding the patent application. 2 Tr. 204. Fischer testified that he has “an
4 ongoing duty from the time the application is filed, throughout the end of the
5 prosecution, to cite any relevant prior art that comes to [his] attention to the
6 Patent Office for its consideration.” 4 Tr. 37. He also testified that it is his
7 standard practice to tell clients to tell him “everything [they] know that’s
8 relevant to the claimed invention.” Id. at 38.

9 Fischer testified that the patent statutes and rules do not require
10 inventors to complete a patent search. 4 Tr. 91. McGaffey testified that, based
11 on Fischer’s advice, he believed it was reasonable to forgo spending the \$5,000
12 it would cost for a patent search. 2 Tr. 205.

13 The application for the ’476 Patent was filed on August 5, 2004. 3 Tr. 12;
14 Tr. Exh. 109. Fischer testified that he did not file an information disclosure
15 statement to notify the PTO of prior art while prosecuting the ’476 Patent. 4
16 Tr. 36-37.

17 On May 30, 2006, the patent examiner rejected Claims 1, 2, 4, and 5. Tr.
18 Exh. 112 at 1. Among other things, the examiner found that, in light of United
19 States Patent No. 5,241,307 (“Bidault”) and No. 3,886,496 (“Spilo”), “[i]t
20 would have been obvious to one of ordinary skill in the art, at the time the
21 invention was made to disclose digital data signals control operation of a
22 message generating means so that a single device . . . processes large amounts
23 of data quickly and efficiently . . . as opposed to an analog controller.” Tr.
24 Exh. 112 at 2-3. The patent examiner also identified Wilkinson as “prior art
25 made of record and not relied upon [that] is considered pertinent to applicant’s
26 disclosure.” Id. at 5.

27 On August 14, 2006, Fischer sent some remarks and an amendment to
28 the USPTO. 4 Tr. 43-46, 53-56; Tr. Exh. 113. Fischer amended Claim 1, as

1 follows:

2 A control system by which ~~accessible signal~~ vibro-tactile messages
3 are provided to ~~pedestrians regarding the status of vehicular traffic~~
4 at alert pedestrians when to cross a traffic light controlled
5 intersection, said control system comprising:

6 at least one push button station located at the traffic light
7 controlled intersection to be crossed by pedestrians, said
8 push button station including a push button head that is
9 depressed by the pedestrians and message generating means
10 ~~by which to provide at least one accessible message to advise~~
11 adapted to cause said push button head to vibrate to provide
12 a tactile indication to a visually impaired pedestrian when
13 ~~vehicular traffic through the intersection has been halted;~~
14 and to cross the intersection; and

15 a control unit that is responsive to the depression of the push
16 button head of said push button station to transmit to the
17 push button station both power and digital data signals over
18 a single ~~line~~ pair of wires by which to power and control the
19 operation of said message generating means.

20 4 Tr. 57-58; Tr. Exh. 113 at 4. Fischer testified that he added “detail to narrow
21 the scope” of Claim 1 “in an effort to call out the inventive concept which was
22 different than the prior art that the Patent Office had cited against the claim.” 4
23 Tr. 100-01. Fischer also added a new independent claim, Claim 21, which
24 “restate[s] the invention in different terms.” Id. at 60-61.¹¹

25 _____
26 ¹¹ Claim 21 recites:

27 A control system by which messages are provided to alert
28 pedestrians when to cross a traffic light controlled intersection,

1 The '476 Patent was issued on December 5, 2006. 3 Tr. 12; Tr. Exh. 9.
2 Polara owns the '476 Patent by assignment executed in July 2004. 3 Tr. 12; Tr.
3 Exh. 145-B.

4 c. The Parties' Understanding of the Prior Art

5 McGaffey testified that he understood that two-wire devices existed
6 before Polara's two-wire Navigator. 3 Tr. 23. He also understood Campbell's
7 Enlightened device to be a "simple button that would turn a light on through
8 the manipulation of voltage" like an elevator button. Id. at 20-21. It was not
9 his understanding that the two-wire Navigator was the first product to
10 accomplish one function with two wires. Id. at 23-24. McGaffey testified that
11 he was not trying to hide from the patent examiner that Campbell and
12 Tassimco had products that accomplished one function with two wires. Id. at
13 24. Rather, he believed Polara's device was different because it "utiliz[ed]
14 digital data over power to accomplish the functions, the four established
15 functions, plus the many more that would be capable through that kind of
16

17 said control system comprising:

18 at least one push button station located at the traffic light
19 controlled intersection to be crossed by pedestrians, said push
20 button station including a push button head that is depressed by
21 the pedestrians and a message generator by which to provide at
22 least one message to advise the pedestrians when to cross the
intersection; and

23 a control unit responsive to the depression of the push button head
24 of said push button station to transmit to the push button station
25 power and digital data signals over a single pair of wires by which
26 to power and control the operation of said message generator, one
27 of said pair of wires carrying both of said power and digital data
signals and the second of said pair of wires connected to ground.

28 Tr. Exh. 113 at 10.

1 technology.” Id. at 23. When McGaffey was asked for his understanding of
2 what he believed was different about Polara’s two-wire APS device at the time
3 the patent application was filed, he responded, “That it was able to accomplish
4 through digital data over power what none of the other devices out there at the
5 time could do.” Id. at 25.

6 Beckwith testified that the central control unit and push button station in
7 Polara’s two-wire APS system both include microprocessors that communicate
8 with each other over two wires using digital-data signals. 3 Tr. 93-94. He
9 testified that he was not aware of any product that operated in that fashion at
10 the time the application for the ’476 Patent was filed and prosecuted. Id. at 94.
11 Beckwith also testified that the Tassimco and Enlightened devices do not
12 operate using digital-data-over-power signals between two microprocessors. Id.
13 at 95. Beckwith testified that Wilkinson did not transmit digital data, “[n]ot in
14 the normal meaning of the word digital.” Id. at 101-03.

15 At trial, Campbell’s expert, Dr. Jones, testified that Claim 1 of the ’476
16 Patent was anticipated by Wilkinson. 6 Tr. 46. Dr. Jones also testified that
17 Claim 21 of the ’476 Patent was anticipated by Wilkinson, the Campbell
18 Enlightened device, and the Tassimco device. Id. at 46-47.

19 **3. Conclusions of Law**

20 “Inequitable conduct is an equitable defense to patent infringement that,
21 if proved, bars enforcement of a patent.” Therasense, Inc. v. Becton, Dickinson
22 & Co., 649 F.3d 1276, 1285 (Fed. Cir. 2011). “It is only applied where the
23 patentee has unfairly obtained an unwarranted patent through misconduct.”
24 Ohio Willow Wood Co. v. Alps S., LLC, 735 F.3d 1333, 1344 (Fed. Cir.
25 2013). To prove inequitable conduct, the defendant “must show by clear and
26 convincing evidence that the patent applicant (1) misrepresented or omitted
27 information material to patentability, and (2) did so with specific intent to
28 mislead or deceive the PTO.” Id. (quoting In re Rosuvastatin Calcium Patent

1 Litig., 703 F.3d 511, 519 (Fed. Cir. 2012)).

2 In Therasense, the Federal Circuit established a heightened standard for
3 proving inequitable conduct at the merits stage. In cases involving
4 nondisclosure of information, “the accused infringer must prove by clear and
5 convincing evidence that the applicant knew of the reference, knew that it was
6 material, and made a deliberate decision to withhold it.” Therasense, 649 F.3d
7 at 1290. Thus, the defendant must show “but-for materiality” and that the
8 intent to deceive is “the single most reasonable inference able to be drawn from
9 the evidence.” Id. at 1290-91. Prior art is but-for material if the PTO would not
10 have allowed a claim had it been aware of the undisclosed reference. Id. at
11 1291. Because the court must look to the standard used by the PTO to allow
12 claims during examination, “the court should apply the preponderance of the
13 evidence standard and give claims their broadest reasonable construction.” Id.
14 at 1291-92.¹²

15 *Materiality.* As a matter of law, a patentee does not commit inequitable
16 conduct by withholding a reference if the patent examiner in fact considered
17 the reference. Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d
18 1565, 1582 (Fed. Cir. 1991), overruled on other grounds by Abbott Labs. v.
19 Sandoz, Inc., 566 F.3d 1282 (Fed. Cir. 2009). In other words, if the examiner
20 actually considers a reference it is irrelevant whether the patentee disclosed the
21

22 ¹² District courts and the PTO use different evidentiary standards and
23 rules for claim construction. Therefore, “even if a district court does not
24 invalidate a claim based on a deliberately withheld reference, the reference
25 may be material if it would have blocked patent issuance under the PTO’s
26 different evidentiary standards.” Therasense, 649 F.3d at 1292. As such, the
27 jury’s verdict finding that Claims 1 through 4 of the ’476 Patent were not
28 obvious does not weigh on the determination of materiality for inequitable
conduct. See Am. Calcar, Inc. v. Am. Honda Motor Co., 768 F.3d 1185, 1189
(Fed. Cir. 2014).

1 reference or the examiner discovered the reference on her own. Id.; see also 37
2 C.F.R. § 1.56(a) (“The duty to disclose all information known to be material to
3 patentability is deemed to be satisfied if all information known to be material
4 to patentability of any claim issued in a patent was cited by the Office or
5 submitted to the Office . . .”). Here, it is evident from the face of the ’476
6 Patent that Wilkinson was before the patent examiner during prosecution of
7 the patent. See Exh. 9 at 1. In fact, Judge Carney long ago determined that
8 Wilkinson could not form the basis of an inequitable conduct defense. See Dkt.
9 34 at 5. When dismissing Campbell’s original equitable conduct defense, Judge
10 Carney held that “[a]ny allegation that Polara withheld [Wilkinson] from the
11 PTO therefore cannot be the basis for an inequitable conduct defense.” Id.
12 (citing Scripps Clinic, 927 F.2d at 1582; 37 C.F.R. § 1.56(a)).

13 Additionally, a reference is not but-for material if it is cumulative of or
14 less relevant than information already before the PTO. Larson Mfg. Co. of S.
15 Dakota v. Aluminart Prod. Ltd., 559 F.3d 1317, 1327 (Fed. Cir. 2009). A
16 reference is cumulative if it “teaches no more than what a reasonable examiner
17 would consider to be taught by the prior art already before the PTO.” Regents
18 of the Univ. of California v. Eli Lilly & Co., 119 F.3d 1559, 1574-75 (Fed. Cir.
19 1997); see also Molins PLC v. Textron, Inc., 48 F.3d 1172, 1185 (Fed. Cir.
20 1995) (because withheld reference was “no more pertinent to” patent
21 application “than was claim 26 of the Lemelson ’770 patent, which was
22 already of record,” court’s finding that withheld reference was material “was
23 clearly erroneous”).

24 Here, by Campbell’s own admission, Wilkinson is a better and more
25 relevant reference than the Tassimco or Enlightened devices. Campbell has not
26 identified any evidence presented at trial showing that either of those devices
27 discloses a particularly important limitation not elsewhere disclosed or “a more
28 complete combination of relevant features.” Indeed, Campbell’s expert, Dr.

1 Jones, testified that Wilkinson and the Tassimco and Enlightened devices
2 anticipated Claim 21, but only Wilkinson anticipated Claim 1. See 6 Tr. 46-47;
3 see also Dkt. 450 at 61 (“As Wilkinson demonstrated, such systems could, of
4 course, control . . . not just sounds and a pilot light but a vibrating pushbutton
5 – an APS feature, as well.”). Thus, even if the patent examiner had possessed
6 the Tassimco and Enlightened devices and gave the ’476 Patent claims the
7 broadest reasonable construction, it is unlikely that the examiner would have
8 rejected the claims based on these references.

9 *Intent to deceive.* To prove intent based on nondisclosure to the PTO, the
10 accused infringer must show by clear and convincing evidence that “the
11 applicant made a deliberate decision to withhold a known material reference.”
12 Therasense, 649 F.3d at 1290 (quoting Molins, 48 F.3d at 1181). It is not
13 enough to show that a misrepresentation or omission amounted to negligence
14 or gross negligence under a “should have known” standard. Id. If there is no
15 direct evidence of deceptive intent, “a district court may infer intent from
16 indirect and circumstantial evidence.” Id. “However, to meet the clear and
17 convincing evidence standard, the specific intent to deceive must be ‘the single
18 most reasonable inference able to be drawn from the evidence.’” Id. (quoting
19 Star Sci., Inc. v. R.J. Reynolds Tobacco Co., 537 F.3d 1357, 1366 (Fed. Cir.
20 2008)). Accordingly, “when there are multiple reasonable inferences that may
21 be drawn, intent to deceive cannot be found.” Id. at 1290-91 (Fed. Cir. 2011)
22 (citing Scanner Techs. Corp. v. ICOS Vision Sys. Corp. N.V., 528 F.3d 1365,
23 1376 (Fed. Cir. 2008)).

24 Here, the only evidence of deceptive intent Campbell identifies is the fact
25 of nondisclosure, which does not satisfy the intent to deceive element of
26 inequitable conduct. See M. Eagles Tool Warehouse, Inc. v. Fisher Tooling
27 Co., 439 F.3d 1335, 1341 (Fed. Cir. 2006). Moreover, Polara presented
28 evidence that McGaffey and Beckwith did not have the requisite intent because

1 they did not consider Wilkinson, the Tassimco PIU500, and Campbell
2 Enlightened device to be material. See Therasense, 649 F.3d at 1290
3 (explaining that “accused infringer must prove by clear and convincing
4 evidence that the applicant knew . . . that [the reference] was material”).
5 McGaffey testified that he was not trying to hide from the patent examiner that
6 Campbell and Tassimco had products that accomplished one function with
7 two wires. 3 Tr. 24. Rather, he believed Polara’s device was different because it
8 “utiliz[ed] digital data over power to accomplish the functions, the four
9 established functions, plus the many more that would be capable through that
10 kind of technology.” Id. at 23. When asked what he believed was different
11 about Polara’s two-wire APS system at the time the patent application was
12 filed, McGaffey responded “[t]hat it was able to accomplish through digital
13 data over power what none of the other devices out there at the time could
14 do.” Id. at 25. Similarly, Beckwith testified that at the time the patent
15 application was filed and prosecuted, he was not aware of any other product
16 that operated using digital-data-over-power signals over two wires. Id. at 94-95.
17 Beckwith also testified that Wilkinson did not transmit digital data “in the
18 normal meaning of the word digital.” Id. at 101-03. Based on the jury’s verdict
19 on obviousness and advisory verdict on inequitable conduct, the jury
20 apparently found McGaffey’s and Beckwith’s testimony credible. The Court
21 agrees with the jury’s credibility finding. The Court also finds that McGaffey’s
22 decision not to do a patent search—which presumably would have uncovered
23 Wilkinson—was reasonable based on Fischer’s advice. Under the
24 circumstances, intent to deceive is not the most reasonable inference to be
25 drawn from the evidentiary record. See Therasense, 649 F.3d at 1290.

26 Based on the record, the Court is not persuaded that it should disturb the
27 jury’s advisory verdict that Campbell has not presented clear and convincing
28 evidence that the ’476 Patent is unenforceable due to inequitable conduct.

1 **C. Polara’s Motion for a Permanent Injunction**

2 Polara moves for a permanent injunction against Campbell’s continued
3 sales of infringing products. Dkt. 453.

4 **1. Legal Standard**

5 There is no presumption in favor of an injunction in patent infringement
6 cases. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006). Instead,
7 a plaintiff must show that the traditional equitable factors support a permanent
8 injunction: (1) the plaintiff has suffered irreparable harm; (2) “remedies
9 available at law are inadequate to compensate for that injury”; (3) “considering
10 the balance of hardships between the plaintiff and defendant, a remedy in
11 equity is warranted”; and (4) “the public interest would not be ‘disserved’ by a
12 permanent injunction.” i4i Ltd. P’ship v. Microsoft Corp., 598 F.3d 831, 861
13 (Fed. Cir. 2010) (citing eBay, 547 U.S. at 391); see also Sealant Systems Int’l,
14 Inc. v. TEK Global S.R.L., No. 11-774, 2014 WL 1008183, at *5 (N.D. Cal.
15 Mar. 7, 2014).

16 **2. Polara’s Entitlement to an Injunction**

17 a. Irreparable Harm

18 To establish irreparable harm, a patentee must show a causal nexus
19 between the alleged harm and the infringement. “This just means that there
20 must be proof that the infringement causes the harm.” Apple Inc. v. Samsung
21 Elecs. Co., 809 F.3d 633, 639 (Fed. Cir. 2015), cert. denied, 136 S. Ct. 2522
22 (2016). Polara argues that evidence that the infringing two-wire design drives
23 demand for the accused AAPS product establishes this causal nexus. Dkt. 453-
24 1 at 6-7. The Court agrees. As noted above, the evidence showed that
25 Campbell developed its two-wire AAPS to compete with Polara’s two-wire
26 Navigator. The evidence at trial also showed that developing a two-wire APS
27 system offered marked advantages, because many existing intersections had
28 only two wires. As Polara points out, a 2014 user’s manual for Campbell’s

1 AAPS “touts the infringing features as an advantage of the product.” Dkt. 453-
2 1 at 7 (citing Dkt. 453-11 at 6-8). A causal nexus has been established.

3 Moreover, the evidence showed that Polara and Campbell are direct
4 competitors in the marketplace of APS system suppliers. 2 Tr. 71-72. It also
5 appears that Polara and Campbell are the only two companies who supply
6 two-wire APS systems. See 2 Tr. 71-75. This evidence strongly favors an
7 injunction. See Douglas Dynamics, LLC v. Buyers Prod. Co., 717 F.3d 1336,
8 1345 (Fed. Cir. 2013) (“Where two companies are in competition against one
9 another, the patentee suffers the harm—often irreparable—of being forced to
10 compete against products that incorporate and infringe its own patented
11 inventions.”).

12 Additionally, the evidence showed that Polara is not willing to license
13 the '476 Patent. See 2 Tr. 83-88. Polara’s unwillingness weighs in favor of
14 finding irreparable injury. See Presidio Components, Inc. v. Am. Tech.
15 Ceramics Corp., 702 F.3d 1351, 1363 (Fed. Cir. 2012) (“The district court
16 correctly found [patentee’s] unwillingness to license favored finding irreparable
17 injury.”).

18 Campbell argues that Polara has not shown any lost sales due to its
19 infringement. See Dkt. 463 at 12. But the evidence showed that Polara and
20 Campbell are the only two suppliers of two-wire APS systems in the
21 marketplace. See 2 Tr. 70-72. Polara also presented evidence that Campbell
22 had sold two-wire devices to former Polara customers in Nevada and
23 California. See id. at 74-77. This testimony, together with the undisputed
24 evidence that Polara and Campbell were direct competitors, established that
25 Polara has suffered irreparable harm from lost business opportunities due to
26 Campbell’s infringement.

27 Campbell also argues that Polara’s failure to seek preliminary injunctive
28 relief demonstrates that it is not being irreparably harmed. Dkt. 463 at 13-14.

1 But a period of delay is only one circumstance that a district court may
2 consider when evaluating irreparable harm. See Hybritech Inc. v. Abbott
3 Labs., 849 F.2d 1446, 1457 (Fed. Cir. 1988); see also Apple, Inc. v. Samsung
4 Elecs. Co., 678 F.3d 1314, 1325 (Fed. Cir. 2012). And “a showing of delay
5 does not preclude, as a matter of law, a determination of irreparable harm.”
6 Hybritech, 849 F.2d at 1457.

7 In sum, considering the substantial evidence of direct competition in the
8 same market and the causal nexus between the infringement and the harm, the
9 Court finds that Polara has shown that it has suffered irreparable injury.

10 b. Adequacy of Legal Remedies

11 Where there is no reason to believe that infringement or irreparable
12 harm arising therefrom will cease absent an injunction, money damages are
13 inadequate. See Robert Bosch LLC v. Pylon Mfg. Corp., 659 F.3d 1142, 1155
14 (Fed. Cir. 2011). Here, there is no reason to believe that Campbell will
15 discontinue offering an infringing two-wire device absent an injunction. An
16 award of money damages for Campbell’s past infringement does not mean that
17 money damages are an adequate remedy for future infringement. See Kanga
18 Care LLC v. GoGreen Enters. LLC, No. 13-2770, 2014 WL 5889815, at *3
19 (D. Colo. Nov. 12, 2014) (holding that “any sales” of infringing product
20 “cause[s] damage to plaintiff’s interests that cannot be adequately remedied by
21 a monetary award”); Honeywell Int’l, Inc. v. Universal Avionics Sys. Corp.,
22 397 F. Supp. 2d 537, 546 (D. Del. 2005) (noting that “while a monetary award
23 is often an adequate remedy for past infringement, it does not follow that
24 money relief is a sufficient remedy against future infringement”). Because
25 money damages are inadequate, this factor weighs in favor of issuing an
26 injunction.

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1 c. Balance of Hardships

2 Absent an injunction, Polara faces substantial hardship because it must
3 compete with its own patented invention. See Robert Bosch, 659 F.3d at 1156
4 (holding that requiring patentee “to compete against its own patented
5 invention,” places “substantial hardship” on patentee and therefore “favors
6 entry of an injunction”). In response, Campbell argues that it will lose its
7 “toehold” in the marketplace if an injunction is issued, giving Polara the
8 opportunity to “force [it] out of the marketplace entirely.” Dkt. 463 at 20. But
9 the fact that Campbell might lose market share or suffer other harm if it cannot
10 sell an infringing product is not a basis for denying Polara injunctive relief.
11 Any hardship faced by Campbell is the result of its own actions and its
12 decision to enter the relevant market with an infringing device. See Coloplast
13 A/S v. Generic Med. Devices, Inc., No. 10-227, 2012 WL 3262756, at *2
14 (W.D. Wash. Aug. 9, 2012) (finding that balance of hardships favored entry of
15 injunction where defendant’s hardship was “result of its calculated business
16 risk to enter the relevant market with its devices”); see also Windsurfing Int’l,
17 Inc. v. AMF, Inc., 782 F.2d 995, 1003 n. 12 (Fed. Cir. 1986) (“One who elects
18 to build a business on a product found to infringe cannot be heard to complain
19 if an injunction against continuing infringement destroys the business so
20 elected.”). Moreover, Campbell itself asserts that it is developing “next
21 generation” products that are not infringing. Dkt. 463 at 20. Any non-
22 infringing products will not be affected by the Court’s injunction, diminishing
23 the force of this argument.

24 d. Public Interest

25 Finally, the public interest also weighs in favor of granting a permanent
26 injunction. The public has a strong interest in maintaining the integrity of the
27 patent system by enforcing a patent owner’s right to exclude. See Broadcom
28 Corp. v. Qualcomm Inc., 543 F.3d 683, 704 (Fed. Cir. 2008) (acknowledging

1 district court’s conclusion that “it is generally in the public interest to uphold
2 patent rights”); Smith & Nephew, Inc. v. Synthes, 466 F. Supp. 2d 978, 985
3 (W.D. Tenn. 2006) (“As a general matter, the public maintains an interest in
4 protecting the rights of patent holders, and injunctions serve that interest.”).
5 Without an injunction, there is every reason to believe that Campbell will
6 continue violating Polara’s right to exclude, undermining the policies that
7 underlie the patent laws.

8 **3. Scope of the Injunction**

9 Having determined that entry of a permanent injunction is supported by
10 the four eBay factors, the Court turns to the appropriate scope of the
11 injunction. The Court possesses “inherent discretion to fashion equitable
12 relief.” Robert Bosch, 659 F.3d at 1149.

13 Polara seeks entry of the following injunction:

14 IT IS FURTHER ORDERED that Campbell and its
15 subsidiaries and affiliated companies (collectively “the Campbell
16 [E]ntities”), as well as the Campbell [Entities’] successors, assigns,
17 officers, directors, distributors, agents, servants, employees,
18 representatives and attorneys, and those persons in active concert
19 or participation with them who receive notice of the order are
20 hereby immediately and permanently restrained and enjoined,
21 pursuant to 35 U.S.C. § 283 and Fed. R. Civ. P. 65(d), from
22 making, using, offering for sale or selling in the United States, or
23 importing into the United States, or causing to be made, used,
24 offered for sale, or sold in the United States, or imported into the
25 United States, any [Campbell Advisor Advanced Pedestrian
26 Station (“Infringing Product”)] or any products not more than
27 colorably different therefrom.

28 IT IS FURTHER ORDERED that [the Campbell Entities]

1 as well as the Campbell [Entities'] successors, assigns, officers,
2 directors, distributors, agents, servants, employees, representatives
3 and attorneys, and those persons in active concert or participation
4 with them who receive notice of the order are hereby immediately
5 and permanently restrained and enjoined, pursuant to 35 U.S.C. §
6 283 and Fed. R. Civ. P. 65(d), from maintaining, servicing,
7 repairing or otherwise providing technical support for any
8 Infringing Product sold prior to January 3, 2013.

9 IT IS FURTHER ORDERED that within 14 days of
10 issuance of this order, the Campbell Entities shall provide written
11 notice of this judgment and order, and the injunction ordered
12 herein, to: their officers, directors, distributors, customers, agents,
13 servants, representatives, attorneys, employees, subsidiaries and
14 affiliates, and those persons in active concert or participation with
15 them, as well as any entity to which Campbell has previously
16 directly or indirectly sold or offered for sale an Infringing Product.
17 The Campbell entities shall take whatever means are necessary or
18 appropriate to ensure that this order is properly complied with.

19 IT IS FURTHER ORDERED that within 14 days of
20 issuance of this order, the Campbell Entities shall provide written
21 notice of this judgment and order, and the injunction ordered
22 herein, to each purchaser, user, or customer to which Campbell
23 has previously directly or indirectly sold or offered for sale an
24 Infringing Product first sold prior to January 3, 2013, stating:

25 *Each Campbell Advisor Advanced Pedestrian Station provided by*
26 *Campbell prior to January 3, 2013 is affected by a Permanent Injunction*
27 *entered by the United States District Court for the Central District of*
28 *California in [Case] No. SA CV 13-00007-DFM. A copy of this*

1 *Permanent Injunction is included with this notice. The Campbell Advisor*
2 *Advanced Pedestrian Station has been found to infringe U.S. Patent No[].*
3 *7,145,476, which is assigned to Polara Engineering, Inc. Accordingly,*
4 *certain acts associated with the Campbell Advisor Advanced Pedestrian*
5 *Station are prohibited.*

6 *As result of this Permanent Injunction, Campbell and its*
7 *distributors, successors, assigns, officers, directors, agents, servants,*
8 *employees, representatives and attorneys, and those persons in active*
9 *concert or participation with them have been enjoined from maintaining,*
10 *servicing, repairing or otherwise providing technical support for any*
11 *Campbell Advisor Advanced Pedestrian Station sold prior to January 3,*
12 *2013, including the Campbell Advisor Advanced Pedestrian Stations*
13 *provided to you having the following part numbers:*

14 *[to be inserted by Campbell].*

15 IT IS FURTHER ORDERED that within 28 days of
16 issuance of this order, the Campbell Entities shall file with the
17 Court a list identifying each entity to which, as set forth above, the
18 Campbell Entities provided written notice of this judgment and
19 order, and the injunction ordered herein.

20 See Dkt. 453-12 at 1-3.

21 Polara's proposed injunction is overbroad. As an initial matter, Polara
22 does not justify the relief it seeks with respect to Campbell's past sales. It has
23 been awarded damages on those sales in the form of a reasonable royalty. This
24 award acts as an implied license on such sales. See King Instrument Corp. v.
25 Otari Corp., 814 F.2d 1560, 1564 (Fed. Cir. 1987); see also Itron, Inc. v.
26 Benghiat, No. 99-501, 2003 WL 22037710, at *14 (D. Minn. Aug. 29, 2003)
27 ("By paying the damages that it owes in full, [infringer] will receive an implied
28 license on its past infringing sales."). The Court accordingly will not order that

1 Campbell be barred from “maintaining, servicing, repairing or otherwise
2 providing technical support” for any of its infringing products.

3 The Court will, however, order Campbell to send notice to its customers
4 of the injunction issued by the Court. This notice requirement is necessary to
5 protect Polara’s rights in the ’476 Patent. See Braintree Labs., Inc. v. Nephro-
6 Tech, Inc., 81 F. Supp. 2d 1122, 1137 (D. Kan. 2000).

7 The remaining issue is the language barring Campbell’s sale of devices
8 that infringe Claims 1 through 4 of the ’476 Patent. Polara defines “Infringing
9 Product” as Campbell’s AAPS. The Court agrees that Campbell’s AAPS
10 should be subject to injunctive relief to the extent that the device infringes
11 Claims 1 through 4 of the ’476 Patent. And there is the problem with Polara’s
12 language. A version of Campbell’s AAPS that does not rely on Polara’s data-
13 over-power feature to operate over two wires would not infringe the ’476
14 Patent. The injunction’s definition of Infringing Product must reflect that. The
15 Court will accordingly order Polara to submit revised proposed injunction
16 language that limits its definition of Infringing Product consistent with the
17 Court’s views herein. Within seven (7) days of Polara’s submission, Campbell
18 shall file any objections thereto.

19 Related to the Court’s concern, Polara has also asked for authority to
20 inspect a working exemplar of Campbell’s new “wireless” AAPS, what
21 Campbell calls its “WiAAPS.” See Dkt. 489. Campbell objects to Polara’s
22 request. See Dkt. 490. Polara’s request for inspection is denied. Once an
23 appropriate injunction is in place, Polara may, to the extent it believes that
24 Campbell’s WiAAPS violates the injunction, seek to have Campbell held in
25 contempt.

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1 **D. Polara’s Motion for a Judgment of Willfulness and an Award of**
2 **Enhanced Damages**

3 Polara seeks enhanced damages in the form of trebling the jury’s
4 damages award to punish Campbell’s willful conduct. Dkt. 455.

5 Courts have the discretion to award “damages up to three times the
6 amount found or assessed.” 35 U.S.C. § 284. Such enhanced damages are not
7 required by a finding of egregious misconduct. Halo, 136 S. Ct. at 1933. Courts
8 should “continue to take into account the particular circumstances of each
9 case,” reserving enhanced damages for “egregious cases typified by willful
10 misconduct.” Id. at 1933-34.

11 Read Corp. v. Portec, Inc., 970 F.2d 816, 826-27 (Fed. Cir. 1992),
12 identified nine factors relevant to the egregious conduct inquiry: (1) whether
13 the infringer deliberately copied the ideas or design of another; (2) whether the
14 infringer, when he knew of the other’s patent protection, investigated the scope
15 of the patent and formed a good-faith belief that it was invalid or that it was
16 not infringed; (3) the infringer’s behavior as a party to the litigation; (4) the
17 infringer’s size and financial condition; (5) closeness of the case; (6) duration of
18 the infringer’s misconduct; (7) remedial action by the infringer; (8) the
19 infringer’s motivation for harm; and (9) whether the infringer attempted to
20 conceal its misconduct. After Halo, courts have continued to look to these
21 factors. See, e.g., Power Integrations, Inc. v. Fairchild Semiconductor Int’l,
22 Inc., No. 09-5235, 2017 WL 130236, at *4 (N.D. Cal. Jan. 13, 2017) (calling
23 the Read factors “useful guideposts”); Sociedad Espanola de Electromedicina
24 y Calidad, S.A. v. Blue Ridge X-Ray Co, Inc., No. 10-159, 2016 WL 7473422,
25 at *7 (W.D. N.C. Dec. 28, 2016) (calling the Read factors “helpful” but “not
26 dispositive”).

27 The Court analyzes the Read factors as follows:

28 *Deliberate copying.* Polara argues that Campbell deliberately copied its ’476

1 Patent when it made its AAPS a two-wire device. As noted above, the
2 evidence showed that Campbell was aware of Polara’s two-wire Navigator and
3 intended to develop a product with similar capabilities. See, e.g., 3 Tr. 121-22
4 (“[W]e needed to develop a product to compete with the two-wire system.”).
5 The evidence showed Campbell eschewed the suggestion that it implement a
6 three-wire solution. Although the evidence of deliberate copying may only be
7 circumstantial, it is nonetheless compelling. This factor favors an award of
8 enhanced damages.

9 *Good faith belief of invalidity or noninfringement.* Polara argues that
10 Campbell ignored warnings about the ’476 Patent and implemented a two-wire
11 design without a competent opinion that its design would not infringe or that
12 the ’476 Patent was invalid. The evidence supports Polara’s argument. Jones,
13 the University of Idaho lawyer, identified “problems” with the ’476 Patent and
14 did not give Campbell’s proposed AAPS a “clean bill of health.” Id. at 146-47;
15 see Tr. Exh. 316 at 2. The Court agrees with the jury’s implicit finding that
16 Lindsey’s analysis offered little support for an argument that Campbell
17 believed the ’476 Patent was invalid; Lindsey’s analysis (Tr. Exh. 317) was
18 limited to Claim 11. As a result, the record does not support Tate’s testimony
19 that he believed that Campbell’s device did not infringe and that the ’476
20 Patent was invalid. This factor also favors an award of enhanced damages.

21 *Campbell’s litigation behavior.* Polara argues that Campbell’s behavior
22 during this litigation supports an award of enhanced damages. The Court
23 disagrees. “Typically, ‘litigation misconduct’ refers to bringing vexatious or
24 unjustified suits, discovery abuses, failure to obey orders of the court, or acts
25 that unnecessarily prolong litigation.” i4i Ltd. P’ship, 598 F.3d at 859. Both
26 sides assail their opponent’s litigation tactics. But the record reveals little
27 behavior by either side that cannot be fairly characterized as zealous and
28 aggressive advocacy. Campbell’s invalidity and unenforceability defenses

1 required a trial, indicating that neither position was vexatious or unjustified.
2 While counsel represented their clients vigorously at trial, both parties acted
3 professionally throughout the proceedings in front of this Court, and neither
4 party points to any findings by Judge Carney or Judge Rosenbluth of flagrant
5 or sanctionable behavior.¹³ Accordingly, the Court finds that this factor weighs
6 against awarding enhanced damages.

7 *Campbell's size and financial condition.* Polara argues that Campbell's size
8 and financial condition support an award of enhanced damages. The Court
9 heard little evidence at trial on this topic. Polara and Campbell are both
10 relatively small companies, each employing fewer than 100 employees. 1 Tr.
11 44; 2 Tr. 12. But the damages awarded by the jury are not colossal, and there is
12 no evidence that trebling those damages would threaten to destroy Campbell's
13 financial condition. As a result, the Court finds that this factor is neutral.

14 *Closeness of the case.* Polara argues that "[n]othing about this case was
15 'close.'" Dkt. 460-1 at 15. This is an overstatement. In particular, the
16 affirmative defense of invalidity due to obviousness was a close call; although
17 Polara did not bear the burden of proof, it did not marshal overwhelming
18 evidence to refute Campbell's arguments that its two-wire system was obvious.
19 But Campbell's other invalidity theories were weaker, and the fact that those
20 issues required a resolution at trial does not indicate that they were particularly
21 close. See PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC, No.
22 11-761, 2016 WL 6537977, at *7 (N.D.N.Y. Nov. 3, 2016). In sum, the Court
23 finds that this factor is also neutral.

24 *Duration of the infringer's misconduct.* Polara argues that the duration of
25 Campbell's infringement weighs in favor of enhancement. The Court agrees.

26 ¹³ Before the parties consented to this Court, U.S. Magistrate Judge Jean
27 Rosenbluth handled the pretrial discovery disputes in this matter, of which
28 there were several.

1 Campbell's infringement began more than six years ago. Courts have
2 concluded that similarly lengthy periods of infringement weigh in favor of
3 enhancement. See, e.g., I-Flow Corp. v. Apex Med. Tech., Inc., No. 07-1200,
4 2010 WL 114005, at *3 (S.D. Cal. Jan. 6, 2010) (finding six years of
5 misconduct was "substantial," favoring enhancement).

6 *Campbell's remedial actions.* Polara argues that Campbell's failure to take
7 any remedial action, most notably its failure to discontinue sales of the
8 infringing product after Polara filed suit and Judge Carney granted partial
9 summary judgment, weighs in favor of enhancement. The Court agrees.

10 Courts have concluded that continuing to sell the infringing products after
11 notice of infringement and during the course of litigation supports
12 enhancement. See Novozymes A/S v. Genencor Int'l, Inc., 474 F. Supp. 2d
13 592, 611 (D. Del. 2007) ("That Defendants failed to take remedial action and
14 continued to infringe until after the liability trial also supports an enhanced
15 award."). The record shows that Campbell took no remedial action. This
16 factor weighs in favor of enhancement.

17 *Campbell's motivation for harm.* Polara argues that Campbell, as its direct
18 competitor, was motivated to take market share from Polara. It is undisputed
19 that Polara and Campbell are direct competitors in a relatively small market
20 for APS systems; "infringement by a direct competitor in such a market
21 mitigates in favor of enhanced damages." TruePosition Inc. v. Andrew Corp.,
22 611 F. Supp. 2d 400, 412 (D. Del. 2009). Moreover, the evidence supports the
23 conclusion that Campbell preferred taking the risk of infringement over
24 designing a non-infringing device, and that Campbell did so to divert business
25 from Polara. See Funai Elec. Co., Ltd. v. Daewoo Elecs. Corp., 593 F. Supp.
26 2d 1088, 1116-17 (N.D. Cal. 2009) (agreeing that "where, as here, the infringer
27 engages in infringing conduct to gain an edge over the patentee in a
28 competitive market, this factor favors an award of enhanced damages."). This

1 factor weighs in favor of enhancement.

2 *Whether Campbell attempted to conceal its misconduct.* Polara does not argue
3 that Campbell attempted to conceal its misconduct. This factor weighs against
4 enhancement.

5 Taking into account the jury’s verdict, the Read factors, and, most
6 importantly, the rationale underlying enhanced damages, the Court is
7 persuaded that enhanced damages are appropriate. Five of the nine Read
8 factors—deliberate copying, no good faith belief in non-infringement or
9 invalidity, duration of infringement, the absence of remedial actions, and
10 motivation for harm—weigh in favor of enhancement. Two factors are neutral,
11 and two factors weigh against enhancement.

12 Although Campbell’s misconduct warrants an enhancement, the Court
13 recognizes that there is a spectrum of improper conduct. See Cleancut, LLC v.
14 Rug Doctor, Inc., No. 08-836, 2013 WL 441209, at *4 (D. Utah Feb. 5, 2013).
15 Trebling damages is reserved for the cases at the most egregious end of the
16 spectrum. See PPC Broadband, 2016 WL 6537977 at *9. Here, the Court
17 exercises its discretion and finds that increasing the damages award by two-
18 and-a-half times is a sufficiently punitive sanction for Campbell’s misconduct.
19 See Halo, 136 S. Ct. at 1932; see Dominion Res. Inc., 2016 WL 5674713 at
20 *20-24 (awarding double damages because of the jury’s willfulness finding and
21 two Read factors weighed in infringer’s favor); Metso Minerals, Inc. v.
22 Powerscreen Int’l Distrib. Ltd., 833 F. Supp. 2d 333, 341 (E.D.N.Y. 2011)
23 (concluding that full enhancement of treble damages was not warranted
24 because of mitigating factors, especially the lack of litigation misconduct).

25 **E. Polara’s Motion to Award Attorney’s Fees**

26 Polara moves for an order awarding attorney’s fees under 35 U.S.C. §
27 285, which provides that reasonable attorney’s fees may be awarded to the
28 prevailing party in “exceptional cases.” Dkt. 454.

1 In Octane Fitness, LLC v. Icon Health & Fitness, Inc., --- U.S. ---, 134 S.
2 Ct. 1749 (2014), the Supreme Court held that an “exceptional” case is “one
3 that stands out from others with respect to the substantive strength of a party’s
4 litigating position (concerning both the governing law and the facts of the case)
5 or the unreasonable manner in which the case was litigated.” Id. at 1756. The
6 courts must look at the totality of the circumstances to decide if a case is
7 “exceptional.” Id. In making this determination, courts may consider the
8 “frivolousness, motivation, objective unreasonableness (both in the factual and
9 legal components of the case) and the need in particular circumstances to
10 advance considerations of compensation and deterrence.” Id. at 1756 n.6.
11 Courts may also award fees in a case presenting “either subjective bad faith or
12 exceptionally meritless claims.” Id. at 1757.

13 Here, although Campbell’s infringement and invalidity defenses were
14 unsuccessful, its litigating positions were not objectively unreasonable. See
15 SFA Sys., LLC v. Newegg Inc., 793 F.3d 1344, 1347-48 (Fed. Cir. 2015)
16 (clarifying that what matters is the substantive strength of a party’s litigating
17 position rather than the eventual success of that position); see also Gaymar
18 Indus., Inc. v. Cincinnati Sub-Zero Prods., Inc., 790 F.3d 1369, 1373 (Fed.
19 Cir. 2015) (noting that “fees are not awarded solely because one party’s
20 position did not prevail”). Campbell’s anticipation, obviousness, and
21 unenforceability defenses all proceeded to trial; although ultimately the jury
22 and the Court found those defenses unpersuasive, there was evidence in the
23 record to support them. The substantive strength of Campbell’s litigating
24 position does not “stand out” from other cases to merit a finding that this case
25 is “exceptional” under § 285.

26 Nor was the case litigated in an unreasonable manner. Both parties
27 spend much of their briefs assailing the other side’s litigation conduct. The
28 Court finds that none of the parties’ allegations demonstrates substantial

1 litigation misconduct. As the Court noted above, both counsel litigated this
2 case vigorously on behalf of their respective clients.

3 In sum, this case is not exceptional. While Campbell’s decisions outside
4 the litigation warrant enhanced damages, its litigation conduct does not “stand
5 out” from other hard-fought cases as unreasonable. Polara’s motion for an
6 award of attorney’s fees is denied.

7 **F. Polara’s Motion for an Accounting**

8 Polara requests supplemental damages for the “entire scope” of
9 Campbell’s infringement. Dkt. 452. Polara also requests prejudgment and
10 postjudgment interest. Id. Campbell does not resist Polara’s request for
11 supplemental damages, but contends that any accounting should run from
12 February 1, 2016. Dkt. 462 at 4. Campbell argues that no prejudgment interest
13 is warranted. Id. at 1-4.

14 **1. Supplemental Damages and Accounting**

15 The Court begins with Polara’s request for supplemental damages. Upon
16 a finding of infringement, the patentee is entitled to “damages adequate to
17 compensate for the infringement, but in no event less than a reasonable royalty
18 for the use made of the invention by the infringer.” 35 U.S.C. § 284. Patentees
19 are entitled to supplemental damage awards for any infringement prior to the
20 entry of a permanent injunction that was not considered by the jury. See
21 Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1212-13 (Fed. Cir.
22 2010). “Courts routinely grant motions for a further accounting where the jury
23 did not consider certain periods of infringing activity post-verdict.” Metso
24 Minerals, 833 F. Supp. 2d at 347. This reasoning has been applied to situations
25 like this one in which an infringer provides sales data that does not cover all
26 sales made before trial. See Hynix Semiconductor Inc. v. Rambus Inc., 609 F.
27 Supp. 2d 951, 960-61 (N.D. Cal. 2009) (awarding supplemental damages for
28 infringement occurring between verdict and entry of judgment, which could

1 not have been considered by jury); Activevideo Networks, Inc. v. Verizon
2 Comms., Inc., No. 10-248, 2011 WL 4899922, at *4 (E.D. Va. Oct. 14, 2011)
3 (holding that supplemental “damages may take into account pre-verdict
4 infringing sales that were not covered by the jury verdict due to deficiencies in
5 the discovery production”). In calculating supplemental damages to correct
6 this deficiency, the Court may apply the reasonable royalty rate found by the
7 jury. See Hynix, 609 F. Supp. 2d at 964-65 (applying jury’s royalty
8 determination to all infringement); Mondis Tech. Ltd. v. Chimei Innolux
9 Corp., 822 F. Supp. 2d 639, 643 (E.D. Tex. 2011) (“The Court holds that the
10 proper rate for the supplemental damages is the same rates the jury answered
11 were applicable, which are 0.5% for monitors and 0.75% for televisions.”).

12 Here, the jury decided that 15% of total sales was a reasonable royalty.
13 Dkt. 440 at 4. The jury also found that the total infringing sales were
14 \$2,752,842. Id. This figure is the amount, as stipulated by the parties, that
15 Polara’s damages expert, David Hanson, would have testified to as total
16 infringing sales since January 2, 2013. See 7 Tr. 36; Tr. Exh. 350.¹⁴ Hanson did
17 testify that his sales numbers “go through January of 2016.” 5 Tr. 18, 32. His
18 report shows that he included sales figures through January 29, 2016. See Tr.
19 Exh. 345 at 55. A later stipulation was only necessary because Hanson had not
20 provided a damages figure dating from January 2, 2013—not because he was
21 changing his “end” date. See 5 Tr. 54-55; 7 Tr. 35-36. Polara is entitled to
22 supplemental damages of 15% of Campbell’s total sales of the AAPS from
23 January 30, 2016 through the date of this Order.

24 **2. Prejudgment Interest**

25 Damages for infringement should be awarded “together with interest
26 and costs as fixed by the court.” 35 U.S.C. § 284. Prejudgment interest should

27 ¹⁴ The transcript and exhibit mistakenly list the figure as \$12,752,842.
28

1 ordinarily be awarded to a victorious patentee. See Gen. Motors Corp. v.
2 Devex Corp., 461 U.S. 648, 655-56 (1983). Prejudgment interest is meant to be
3 compensatory, not punitive. Oiness v. Walgreens Co., 88 F.3d 1025, 1033
4 (Fed. Cir. 1996). The purpose of prejudgment interest is to put the patent
5 owner “in as good a position as he would have been in had the infringer
6 entered into a reasonable royalty agreement.” Gen. Motors, 461 U.S. at 655.
7 The rate of prejudgment interest is “left largely to the discretion of the district
8 court.” Bio-Rad Labs., Inc. v. Nicolet Instrument Corp., 807 F.2d 964, 969
9 (Fed. Cir. 1986). Prejudgment interest may not be awarded on enhanced
10 damages. See Metso Minerals, 833 F. Supp. 2d at 342 (“[P]re-judgment
11 interest can only be applied to the primary or actual damage portion and not to
12 the punitive or enhanced portion of a damage award.”).

13 Campbell argues that the Court should award no prejudgment interest.
14 See Dkt. 462 at 1-2. Campbell claims that because the two experts disagreed on
15 a reasonable royalty rate, Polara’s royalties are “indefinite” and “not subject to
16 liquidation,” meaning that prejudgment interest should not be assessed. Id.
17 This argument flies in the face of the aforementioned authorities. As noted
18 above, the jury concluded that 15% was a reasonable royalty rate. Prejudgment
19 interest should ordinarily be awarded absent some justification for withholding
20 such an award. DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1263
21 (Fed. Cir. 2014). Campbell offers no such justification.

22 The parties propose different rates and compounding methods for
23 calculating prejudgment interest. Polara argues that the Court should apply
24 California’s breach-of-contract law for a rate of 10% per annum. Dkt. 452-1 at
25 5-6. Campbell argues that the appropriate rate is the prime rate, calculated at a
26 simple rate. Dkt. 462 at 2-4.

27 The Court agrees with Campbell that the prime rate is appropriate. As
28 the “rate charged by banks to its most credit-worthy customers,” the prime rate

1 is frequently found to be the appropriate rate for calculation of prejudgment
2 interest in a patent case. Atmel Corp. v. Silicon Storage Tech., Inc., 202 F.
3 Supp. 2d 1096, 1101 (N.D. Cal. 2002); see also IMX, Inc. v. Lendingtree,
4 L.L.C., 469 F. Supp. 2d 203, 227 (D. Del. 2007) (holding that prime rate
5 provides best compensation to corporate patentee because it “represents the
6 cost of borrowing money, which is ‘a better measure of the harm suffered as a
7 result of the loss of the use of money over time’” (citation omitted)). And,
8 because a patentee’s damages include the foregone use of money, annual
9 compounding is warranted. See Fresenius Med. Care Holdings, Inc. v. Baxter
10 Int’l, Inc., No. 03-1431, 2008 WL 928535, at *2 (N.D. Cal. Apr. 4, 2008).

11 **3. Postjudgment Interest**

12 Under 28 U.S.C. § 1961, Polara requests postjudgment interest
13 calculated at the statutory rate on the total money award, including damages,
14 enhanced damages, and prejudgment interest. Campbell does not oppose
15 Polara’s request.

16 **III.**

17 **CONCLUSION**

18 For the foregoing reasons,

19 1. Campbell’s motion for judgment as a matter of law is DENIED.

20 2. Judgment shall be entered denying Campbell’s inequitable conduct
21 defense.

22 3. Polara’s motion for a permanent injunction is GRANTED. Polara
23 is ORDERED to submit a proposed injunction consistent with this Order.
24 Campbell will file any objections to Polara’s proposed injunction within seven
25 (7) days of Polara’s submission. Polara’s request for inspection is DENIED.

26 4. Polara’s motion for an accounting and supplemental damages for
27 previously unaccounted-for infringing sales is GRANTED. Campbell shall
28 provide Polara a full accounting of all infringing sales from the period

1 beginning January 30, 2016, through the date of this Order within seven (7)
2 days of the date of this Order.

3 5. Polara's motion for pre- and postjudgment interest is GRANTED.
4 With respect to prejudgment interest, it shall be calculated at the prime rate,
5 compounded annually. Prejudgment interest shall not be awarded on any
6 enhanced damages. Polara is ORDERED to submit calculations for
7 supplemental damages and prejudgment interest consistent with this Order,
8 and a form of judgment reflecting the same, within fourteen (14) days of
9 receiving Campbell's updated sales figures as ordered in the preceding
10 paragraph. Campbell may submit its objections, if any, to Polara's form of
11 judgment, within seven (7) days after the judgment is submitted. Polara may
12 reply within seven (7) days thereafter.


13 6. Polara's motion to enhance the damages award is GRANTED,
14 but only to the extent that any damages award shall be increased by two-and-a-
15 half times.

16 7. Polara's motion for attorney's fees pursuant to 35 U.S.C. § 285 is
17 DENIED.

18 8. In light of the aforementioned rulings, Polara's request for a status
19 conference (Dkt. 493) is DENIED. The Court will schedule any further
20 hearing it deems necessary on any remaining issues related to the scope of the
21 injunction and the calculation of damages and interest.

22 IT IS SO ORDERED.

23
24 Dated: February 27, 2017

25 
26 _____
27 DOUGLAS F. McCORMICK
28 United States Magistrate Judge