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United States District Court  
For the Northern District of California

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

SEIKO EPSON CORPORATION,  
  
Plaintiff/Counter-Defendant,  
  
v.  
  
CORETRONIC CORPORATION and  
OPTOMA TECHNOLOGY, INC.,  
  
Defendants/Counter-Claimants.

No. C 06-06946 MHP

OPINION

**Re: Cross-Motions for Summary Judgment  
of Invalidity**

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Plaintiff/counter-defendant Seiko Epson Corporation (“Seiko Epson”) brought this action against defendant/counter-claimant Coretronic Corporation and Optoma Technology, Inc. (collectively “Coretronic”), alleging infringement of several United States patents, including U.S. Patent No. 6,203,158 (“the ‘158 patent”) and U.S. Patent No. 6,527,392 (“the ‘392 patent”). Coretronic counterclaimed, alleging infringement of two United States patents, including U.S. Patent No. 6,742,899 (“the ‘899 patent”). Now before the court are the parties’ cross-motions for summary judgment of invalidity of the ‘158, ‘392 and ‘899 patents. Having considered the parties’ arguments and submissions, and for the reasons set forth below, the court enters the following order.

BACKGROUND

The patents-in-suit concern projectors. Projectors may use a high-brightness light source inside a casing to generate light. The light is modulated to create images. High-brightness light sources generate significant amounts of heat. Seiko Epson’s ‘158 patent and Coretronic’s ‘899

1 patent claim improvements to projector designs that increase the effectiveness of projector cooling.  
2 Seiko Epson's '392 patent addresses a different problem. It claims a design to ensure the proper  
3 alignment of a lamp with the surrounding projector structure so that the images are fully and  
4 uniformly illuminated.

5  
6 I. Seiko Epson's '158 Patent

7 The '158 patent was filed on July 29, 1999, as a continuation of U.S. Patent Application  
8 08/943,730, filed on October 3, 1997. See Docket No. 252 (Biber Dec.), Exh. B ("'158 Patent").  
9 The '158 patent issued on March 20, 2001. See id. It describes a design for cooling a projector by  
10 using multiple fans and ventilating paths. The specification teaches a design in which external air  
11 moves straight into and through the projector's power unit. The other heat-producing components of  
12 the projector are cooled via a separate air intake and ventilation path. The power unit is, therefore,  
13 cooled by air drawn immediately from the ambient air, rather than air that has already passed near  
14 other heat-producing components and thereby retained heat. The design purports to enhance the  
15 efficiency of cooling of the power unit.

16 The asserted claims are claims 1, 2 and 5. Coretronic moves for summary judgment of  
17 invalidity on each of these claims. Claims 1 and 5 are independent claims. Claim 1 reads as  
18 follows:

19 1. A projector, comprising:

20 an optical unit including a light source lamp and a projection lens, the optical unit  
21 forming an optical image in response to image information by optically treating light  
22 beams emitted from the light source lamp and expansively projecting the optical  
image through the projection lens;

23 a power unit including a ventilating path provided inside the power unit for  
circulating air;

24 an outer case that stores the optical unit and the power unit;

25 a first cooling air intake port located on the outer case that provides cooling air from  
26 outside of the outer case to the optical unit; and

27 a second cooling air intake port located on the outer case that directly conducts  
28 cooling air from the outside of the outer case to the ventilating path, said second

1 cooling air intake port comprising:  
2 an inlet provided on the power unit, and  
3 a duct connecting said second cooling air intake port and the air inlet.

4 Id. at 15:25-47. Independent claim 5 reads as follows:

5 5. A projector, comprising:  
6 an optical unit including a light source lamp and a projection lens, the optical unit  
7 forming an optical image in response to image information by optically treating light  
8 beams emitted from the light source lamp and expansively projecting the optical  
9 image through the projection lens;  
10 a power unit including an air inlet and an air outlet;  
11 an outer case that stores the optical unit and the power unit;  
12 a first cooling air intake port located on the outer case that provides cooling air from  
13 outside of the outer case to the optical unit;  
14 a second cooling air intake port located on the outer case that directly conducts  
15 cooling air from the outside of the outer case to the air inlet; and  
16 an exhaust vent provided on the outer case that directly conducts air exhausted from  
17 the air outlet to the outside of the outer case.

18 Id. at 16:10-31.

19 Coretronic asserts that the ‘158 patent is anticipated by both the D-400 projector  
20 manufactured by nVIEW (“the D-400”) and Japanese Patent Application No. 4-271334  
21 (“Nakamura”). See Baily Dec. (discussing the D-400); Biber Dec., Exh. D (“Nakamura”).<sup>1</sup> The D-  
22 400 is a projector, and Nakamura is a patent on a design for cooling a liquid crystal projector that  
23 includes multiple fans and air ducts for cooling the projector’s power unit and other components.  
24 Nakamura was published on September 28, 1992, before the critical date of the ‘158 patent. See id.

25 II. Seiko Epson’s ‘392 Patent

26 The ‘392 patent was filed on February 25, 1999, and it issued on March 4, 2003. See Docket  
27 No. 251 (Payne Dec.), Exh. B (“‘392 Patent”). It describes a design for the mounting of a lamp  
28 within a lamp housing in such a way as to properly align the lamp. The lamp itself comprises a  
“light source lamp” such as a lightbulb and the larger conical reflector in which the light source

1 lamp is mounted. The patent specification describes the manufacturing of the lamp's exterior such  
2 that the bottom and the side of the lamp are flat and fit flush against the bottom and side of the lamp  
3 housing which surrounds the lamp. In a preferred embodiment, a firm wireform-type spring presses  
4 the lamp down and sideways, as well as forward, against the lamp housing. In short, the spring  
5 holds the lamp in place by pressing it against the surfaces on the lamp housing.

6 The asserted claims are claims 1, 3, 4, 7, 9 and 10. Coretronic moves for summary judgment  
7 of invalidity on each of these claims. Claim 1 is the only independent claim asserted, and it reads as  
8 follows:

9 1. A light source lamp unit, comprising:

10 a light source lamp;

11 a reflector that reflects light emitted from the light source lamp, the light source lamp  
12 being attached to the reflector, the reflector having a main body that reflects light, the  
13 main body having an opening on a light-emitting side through which reflected light  
14 is transmitted, an outer surface of the light-emitting side of the reflector including a  
15 first alignment reference surface that extends in a first direction and a second  
16 alignment reference surface that extends in a second direction perpendicular to the  
17 first direction;

18 a lamp housing to which the reflector is mounted, the lamp housing including a first  
19 surface extending in the first direction and a second surface extending in the second  
20 direction; and

21 a spring that presses the reflector against the lamp housing so that the first alignment  
22 reference surface engages the first surface and the second alignment reference surface  
23 engages the second surface.

24 Id. at 10:15-35.

25 Coretronic asserts that two pieces of prior art, Seiko Epson's ELP-5000XB projector and  
26 U.S. Patent No. 4,660,128 ("Bergin"), each anticipate the '392 patent or render the '392 patent  
27 obvious. The ELP-5000X is a projection device containing a lamp, lamp housing and wireform  
28 spring. It was on sale in the United States before February 25, 1998, the critical date for the '392  
patent. See Huang Dec., Exh. A (Responses to Requests for Admission (RFAs) Nos. 15-17). Bergin  
describes a motor vehicle lighting assembly. Bergin issued on April 21, 1987, before the '392  
critical date. See Payne Dec., Exh. G.

1 III. Coretronic's '899 Patent

2 The '899 patent was filed on April 14, 2003, and it issued on June 1, 2004. See Docket No.  
3 242 (Keller Dec.), Exh. 2 ("'899 Patent"). It describes a design for the cooling of a lamp holder  
4 located inside a lamp casing. The specification describes a cooling system in which air is moved  
5 through ducts located above and below the lamp holder. By moving air through the ducts, the  
6 design allows air which has been heated by contact with the lamp holder to exit the projector, rather  
7 than to convect heat from the lamp holder to the outer casing.

8 The asserted claims are claims 1, 2, 3, 7, 9 and 11. Seiko Epson moves for summary  
9 judgment of invalidity on each of these claims. The only independent claim is claim 1, which reads  
10 as follows:

11 1. A cooling apparatus for projector casing, comprising:

12 a casing having an interior;

13 a lamp holder fixed in the interior of the casing, and having at least one guiding  
14 surface on the side near the lower edge of the lamp holder;

15 a ventilation outlet disposed on the casing and proximate the side of the lamp holder;

16 an upper sheet disposed at the top of the lamp holder and keeping a distance from the  
17 casing to define an upper air duct;

18 a lower sheet disposed at the bottom of the lamp holder and keeping a distance from  
19 the casing to define a lower air duct; and

20 a fan disposed adjacent to the lamp holder.

21 Id. at 4:12-26.

22 Seiko Epson asserts that three separate pieces of prior art each anticipate the '899 patent: the  
23 Optoma EzPro 730 projector; the Epson ELP-3000 projector;<sup>2</sup> and Japanese Patent Publication No.  
24 2000-36215 ("Koba"). Additionally, Seiko Epson asserts that the combination of Japanese Patent  
25 Publication Nos. 2000-330206 ("Miyashita") and 2002-49098 ("Kobayashi") renders the '899  
26 claims at issue obvious.

27 Miyashita describes a system that cools a projector in part by moving air through the spaces  
28 between an inner and outer casing. See Utermohlen Dec., Exh. 2. Miyashita was published on

1 November 30, 2000, before the '899 patent critical date of April 14, 2002. See id., Exh. 4 (RFA No.  
2 174). Kobayashi describes a lamp holder for a projector that includes a guiding surface for guiding  
3 air beneath the lamp holder. See id., Exh. 3. Kobayashi was published on February 15, 2002, before  
4 the '899 patent's critical date. See id.

5  
6 IV. Relevant Procedural History

7 On November 6, 2006, Seiko Epson brought this action against Coretronic. Coretronic  
8 answered and counterclaimed on November 27, 2006. On March 21, 2007, Coretronic amended its  
9 answer and counterclaims, alleging, *inter alia*, infringement of the '899 patent. On May 16, 2008,  
10 the court entered a claim construction memorandum and order. The parties filed the instant cross-  
11 motions for summary judgment on September 28, 2008. Oral argument was heard on January 22,  
12 2009.

13  
14 LEGAL STANDARD

15 I. Summary Judgment

16 Summary judgment may be granted only when, drawing all inferences and resolving all  
17 doubts in favor of the non-moving party, there are no genuine issues of material fact and the moving  
18 party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); see generally Anderson v.  
19 Liberty Lobby, Inc., 477 U.S. 242, 247-255 (1986). A material fact is "genuine" if the evidence is  
20 such that a reasonable jury could return a verdict for the non-moving party. Anderson at 248. The  
21 moving party bears the burden of identifying those portions of the pleadings, discovery and  
22 affidavits that demonstrate the absence of a genuine issue of material fact. Celotex Corp. v. Catrett,  
23 477 U.S. 317, 323 (1986). Once the moving party meets its initial burden, the non-moving party  
24 must go beyond the pleadings and, by its own affidavits or discovery, set forth specific facts  
25 showing that there is a genuine issue for trial. Fed R. Civ. P. 56(e); see Anderson at 250.

1 II. Novelty

2 Novelty of a claimed invention is an explicit condition for patentability. 35 U.S.C. § 102;  
3 Aristocrat Tech. Australia Pty., Ltd. v. Int'l Game Tech., 543 F.3d 657, 660-61 (Fed. Cir. 2008).  
4 Section 102(b) provides that a patent claim is invalid if the patented invention is “described in a  
5 printed publication in this or a foreign country or in public use or on sale in this country, more than  
6 one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b); see  
7 Schering Corp. v. Geneva Pharm., Inc., 339 F.3d 1373, 1377 (Fed. Cir. 2003). A patent claim is  
8 invalid based on anticipation if “the four corners of a single, prior art document describe every  
9 element of the claimed invention.” Advanced Display Sys., Inc. v. Kent State Univ., 212 F.3d 1272,  
10 1282 (Fed. Cir. 2000). Furthermore, such disclosure must be “enabling” in that it must be sufficient  
11 to permit a person having ordinary skill in the art to practice the invention. SmithKline Beecham  
12 Corp. v. Apotex Corp., 403 F.3d 1331, 1342 (Fed. Cir. 2005). A patent is presumed valid, and the  
13 party asserting the affirmative defense of anticipation must prove the facts to establish invalidity of  
14 each claim by clear and convincing evidence. 35 U.S.C. § 282; Praxair, Inc. v. ATMI, Inc., 543 F.3d  
15 1306, 1327 (Fed. Cir. 2008). “While anticipation is a question of fact, it may be decided on  
16 summary judgment if the record reveals no genuine dispute of material fact.” Leggett & Platt, Inc.  
17 v. VUTEk, Inc., 537 F.3d 1349, 1352 (Fed. Cir. 2008) (citation and internal quotations omitted).

18  
19 III. Non-Obviousness

20 35 U.S.C. section 103(a) requires that a patent be non-obvious:

21 A patent may not be obtained though the invention is not identically disclosed or  
22 described as set forth in section 102 of this title, if the differences between the subject  
23 matter sought to be patented and the prior art are such that the subject matter as a  
24 whole would have been obvious at the time the invention was made to a person  
having ordinary skill in the art to which said subject matter pertains. Patentability  
shall not be negated by the manner in which the invention was made.

25 Once the patent issues, each claim in an issued patent is presumed valid. 35 U.S.C. § 282. As with  
26 anticipation, to prevail in invalidating a patent on the basis of obviousness, the moving party must  
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1 prove obviousness by clear and convincing evidence. Oakley, Inc. v. Sunglass Hut Int'l, 316 F.3d  
2 1331, 1339 (Fed. Cir. 2003).

3 The question of obviousness “is a question of law premised on underlying findings of fact.”  
4 Eolas Techs. Inc. v. Microsoft Corp., 399 F.3d 1325, 1332 (Fed. Cir. 2005), citing Graham v. John  
5 Deere Co., 383 U.S. 1, 17-18 (1966). These fact questions are: (1) the scope and content of the prior  
6 art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in  
7 the art; and (4) secondary evidence of non-obviousness. Graham, 383 U.S. at 17-18; see also KSR  
8 Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The relevant question “is not whether the  
9 combination was obvious to the patentee but whether the combination was obvious to a person with  
10 ordinary skill in the art.” KSR, 550 U.S. at 420.

11 The “combination of familiar elements according to known methods” is likely to be obvious  
12 when it “does no more than yield predictable results.” KSR, 550 U.S. at 416. If an ordinarily skilled  
13 artisan can implement a predictable variation of a work available in the same field of endeavor or a  
14 different one, section 103 likely bars patentability of the variation. Id. at 417. If, however, the prior  
15 art teaches away from combining certain known elements, discovery of a successful means of  
16 combining them is more likely to be non-obvious. Id. at 416. In assessing non-obviousness,  
17 hindsight bias and *ex post* reasoning are to be avoided. Id. at 421; see also Sanofi-Synthelabo v.  
18 Apotex, Inc., 550 F.3d 1075, 1088 (Fed. Cir. 2008) (holding selection and undertaking of the  
19 arduous separation of a particular racemate could be judged obvious only with hindsight knowledge  
20 that a dextrorotatory enantiomer has certain desirable properties) .

21 To determine the issue of non-obviousness, it will often be necessary for a court “to look to  
22 interrelated teachings of multiple patents; the effects of demands known to the design community or  
23 present in the marketplace; and the background knowledge possessed by a person having ordinary  
24 skill in the art,” in order to determine “whether there was an apparent reason to combine the known  
25 elements in the fashion claimed by the patent at issue.” KSR at 418. To facilitate review, the trial  
26 court’s analysis should be made explicit. Id. However, the analysis “need not seek out precise  
27 teachings directed to the specific subject matter of the challenged claim, for a court can take account  
28



1 of the inferences and creative steps that a person of ordinary skill in the art would employ.” In re  
2 Translogic Tech., Inc., 504 F.3d 1249, 1262 (Fed. Cir. 2007), quoting KSR at 418. “[T]he common  
3 sense of those skilled in the art demonstrates why some combinations would have been obvious  
4 where others would not.” Leapfrog Enters., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1161 (Fed. Cir.  
5 2007).

6 Summary judgment is appropriate where the content of the prior art, the scope of the patent  
7 claim and the level of ordinary skill in the art are not in material dispute. KSR at 427.

8  
9 DISCUSSION

10 I. Seiko Epson’s ‘158 Patent

11 Coretronic contends that the asserted claims of the ‘158 patent are anticipated by, or obvious  
12 in light of, the D-400 and Nakamura. Seiko Epson has asserted two independent claims, claims 1  
13 and 5, and a dependent claim, claim 2.

14  
15 A. Prior Art Status of the D-400

16 Seiko Epson challenges the prior art status of the D-400. Coretronic’s expert has examined  
17 and opined upon a D-400 projector manufactured after the critical date of the ‘158 patent, but  
18 Coretronic has been unable to produce a D-400 that was on sale before the critical date. Coretronic  
19 therefore seeks to establish that the D-400 examined by its expert is identical to those marketed in  
20 the mid-1990s—before the critical date. To establish such identity, Coretronic relies upon the  
21 testimony of one individual, N. Wayne Bailey, a former sales officer for nVIEW, the company that  
22 marketed the D-400. The parties expend not inconsiderable effort in arguing over the appropriate  
23 standard for invalidating a patent on the basis of oral testimony. Harkening back to the Barbed  
24 Wire Patent Case, 143 U.S. 275 (1892), Seiko Epson asserts that corroboration is required of any  
25 witness whose testimony alone is asserted to invalidate a patent. See also Finnigan Corp. v. Int’l  
26 Trade Comm’n, 180 F.3d 1354, 1369 (Fed. Cir. 1999). For its part, Coretronic accuses Seiko Epson  
27 of misstating the corroboration standard, arguing that the question is whether Bailey’s testimony is  
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1 “clear and satisfactory” in light of a multi-factor “rule of reason” test. See Eibel Process Co. v.  
2 Minnesota & Ontario Paper Co., 261 U.S. 45, 60 (1923); Price v. Symsek, 988 F.2d 1187, 1195  
3 (Fed. Cir. 1993).

4 It is unlikely that Bailey’s declaration would suffice under either standard. In any event,  
5 deciding the status of the D-400 for the purposes of this motion does not call for reliance upon a  
6 special corroboration standard. On summary judgment, Coretronic’s burden is at least to show by  
7 clear and convincing evidence that there is no genuine issue of material fact regarding the D-400’s  
8 status as prior art. Bailey is not held out to be an engineer or to have been involved in the design of  
9 the D-400.<sup>3</sup> He provides no technical documents supporting his assertions. He is but one witness.  
10 The fact that he looked at the interiors of D-400s does not necessarily mean that he understood the  
11 technical details of the D-400 or that his memory is sufficiently reliable after more than a decade.  
12 Bailey’s testimony, standing alone, is insufficient to prove the equivalence of the D-400 produced in  
13 2008 to the D-400 models observed in the mid-1990s for the purposes of summary judgment.  
14 Accordingly, the D-400 is disregarded.

15  
16 B. Nakamura and Anticipation of Claims 1 and 2

17 The Nakamura patent application was published in 1992, and there is no dispute as to its  
18 status as prior art. Nakamura, which is not listed as a reference on the face of the ‘158 patent,  
19 teaches a projector design with an embodiment containing two separate air inlets and one exhaust  
20 vent. Air drawn into the projector through the first air inlet passes through several projector  
21 components before traveling “through the vicinity” of the power supply. Before this air reaches the  
22 power supply, however, it is joined by air pulled into the projector from outside the projector  
23 through a second air inlet. The power supply is then cooled by the combined air from both inlets.  
24 Upon passing out of the vicinity of the power supply, at least some of the air passes over or near a  
25 light source before exiting the projector through the exhaust vent. The air is moved via the use of  
26 two fans.

1 Claim 1 of the '158 patent requires an optical unit, which Nakamura undisputedly possesses.  
2 Claim 1 also has the limitation of a power unit with a “ventilating path provided inside the power  
3 unit for circulating cooling air.” ‘158 Patent at 15:33-34. The court ruled in its claim construction  
4 order that this limitation is to be construed as “a route in the power unit along which at least some  
5 fresh air moves while cooling the power unit, the power unit being a portion of the projector that  
6 comprises components that convert and regulate electrical power for use in the projector.” Docket  
7 No. 183 (“Claim Const. Order”) at 24. Nakamura unambiguously discloses a path circulating  
8 cooling air through the power unit. See Nakamura at 2 & 10, Figures 2 & 3. Seiko Epson is  
9 incorrect in its assertion that the airflow shown in Figures 2 and 3 of Nakamura could just as easily  
10 be flowing around the power unit as through it. The patent describes Figures 2 and 3 as different  
11 views of the same embodiment. See id. at 8 (¶ 12). Figure 2, a view from above, shows the air path  
12 going through the power unit, not around it. Figure 3, a view from the side, shows the air path going  
13 both above and through the power unit, not only above or below it. Viewed together, these two  
14 schematics of one embodiment show that some or most of the air path is traveling through the power  
15 unit, not simply around it. Nothing in the claim language or claim construction suggests that a  
16 ventilating path cannot be “inside” a power unit merely because some air passes over or around the  
17 unit as well. While some of the language in the patent discloses a more general concept of  
18 “traveling in the vicinity of” the power supply, Figures 2 and 3 clearly disclose a specific  
19 embodiment in which the air travels through the power unit.

20 There is no dispute that Nakamura has “an outer case that stores the optical unit and power  
21 unit.” ‘158 Patent at 15:35-36. It also plainly has “a first cooling intake port on the outer case that  
22 provides cooling air from outside the outer case to the optical unit.” Id. at 15:37-39. Furthermore,  
23 Nakamura has a second intake port. This intake port “directly conducts cooling air from the outside  
24 of the outer case to the ventilation path.” Figures 2 and 3 make it plain that the air brought in  
25 through the second intake port travels immediately into the power unit. Seiko Epson’s suggestion  
26 that the air entering from the lower duct, after mixing with the warmer air, might be no cooler than  
27 the ambient air, is misplaced. The issue is not whether the air mixture is cooler than the ambient air  
28

1 (the air outside the outer casing); rather, the question is whether it is cooler than the air *inside* the  
2 outer casing of the projector. See Claim Const. Order at 24.<sup>4</sup> Since the air already inside the  
3 projector is ambient air that has been heated by the process of cooling projector components, any air  
4 being brought in from the outside via a second intake port will lower the temperature of the air  
5 mixture. Accordingly, it is “cooling air.” See ‘158 Patent at 15:4-7 (“Direct introduction of fresh air  
6 into the ventilating path permits cooling of the interior of the power unit by fresh air, which is cooler  
7 than the air in the outer case . . .”). Furthermore, an air inlet is inherently disclosed in Nakamura.  
8 See Finnigan, 180 F.3d at 1365 (holding that an inherent characteristic must necessarily be present,  
9 and so recognized by persons of ordinary skill, in the thing described in the reference). The passage  
10 of air through an ordinary physical object necessitates that some inlet and outlet be present. Because  
11 the air passes through the power unit, there is necessarily “an air inlet provided on the power unit.”  
12 See ‘158 Patent at 15:44.<sup>5</sup> Finally, there is a “duct connecting said second cooling air intake port  
13 and the air outlet.” Id. at 15:46-47. That phrase has been construed to mean a “structure that limits  
14 the direction of airflow between the intake port on the outer case and an opening leading to a  
15 ventilating path of the power unit so as to form an airflow passage.” Claim Const. Order at 24. In  
16 Nakamura, the airflow is limited by the outer case’s structure and duct 41. Nakamura at 8 & 10.  
17 These structures limit the direction of the airflow, directing it toward the power unit. As such, there  
18 is a duct.

19 In sum, Nakamura reads onto each and every limitation of claim 1. Accordingly, claim 1 and  
20 its dependent claim 2, which merely recites a ventilating fan, are invalid.

21  
22 C. Nakamura and Obviousness of Claim 5

23 Claim 5's limitations are identical to those of claim 1, with three exceptions. Firstly, claim  
24 5's power unit includes “an air inlet and an air outlet” rather than a “ventilating path.” As noted  
25 above, Nakamura discloses air moving through a power unit; therefore, an inlet and outlet for air are  
26 inherently disclosed. Secondly, claim 5 also differs from claim 1 in that the “second cooling air  
27 intake port” element recites only an air inlet and no ventilating path or duct. As discussed,  
28

1 Nakamura discloses an air inlet on a power unit. Finally, claim 5 claims a final element not recited  
2 in claim 1: “an exhaust vent provided on the outer case that directly conducts air exhausted from the  
3 air outlet to the outside of the outer case.” There is no material dispute that Nakamura discloses an  
4 exhaust vent on the outer case or that the vent exhausts air from the power unit (and its inherent air  
5 outlet). There is a genuine issue of material fact, however, whether Nakamura’s exhaust vent  
6 “directly” conducts air out of the projector.<sup>6</sup> Thus Nakamura—the only reference advanced by  
7 Coretronic which is clearly prior art—does not disclose as a matter of law the final limitation of  
8 claim 5 and does not anticipate the claim.

9 Must Coretronic’s motion for summary judgment of obviousness of claim 5 therefore  
10 necessarily also fail? Perhaps conflating novelty and non-obviousness analysis, it is sometimes  
11 stated that, for a claim to be held obvious, each and every claim limitation must be identified in the  
12 prior art. A recent post-KSR case took up this issue. The district court in Abbot Labs. v. Sandoz,  
13 Inc., 500 F. Supp. 2d 846 (N.D. Ill. 2007), wrote:

14  
15 Prior to the issuance of the KSR opinion, Federal Circuit precedent taught that all the  
16 claim limitations of the invention at issue must be found to exist in the prior art  
17 references before it could be determined whether there was a teaching, motivation, or  
18 suggestion to combine those limitations. The KSR opinion only focused on the  
19 Federal Circuit’s strict use of the TSM test in performing the obviousness analysis; it  
20 did not mention or affect the requirement that each and every claim limitation be  
21 found present in the combination of the prior art references before the analysis  
22 proceeds.

19 Id. at 851-852 (internal citations omitted). That court denied an accused infringer of a  
20 pharmaceutical patent a stay of injunction pending appeal, finding, *inter alia*, no substantial question  
21 of obviousness. Id. at 853.

22 The district court in Abbot Labs. relied on three pre-KSR cases to support its contention that  
23 some version of an “each and every limitation” requirement for obviousness was established in  
24 Federal Circuit precedent prior to KSR. The first such case, Velandar v. Garner, 348 F.3d 1359  
25 (Fed. Cir. 2003), affirmed a Board of Patent Appeals and Interferences decision that a patent  
26 application in the field of bioengineering was obvious. The court noted in dicta, “If all the elements  
27 of an invention are found in a combination of prior art references, a proper analysis under § 103  
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1 requires, *inter alia*, consideration of two factors . . . .” Id. at 1363. In that case, all of the claim  
2 limitations had been identified in the prior art, and the question of whether each and every element  
3 must exist in prior art references was neither presented nor decided. The second case relied upon by  
4 the district court in Abbot Labs. is U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554 (Fed. Cir.  
5 1997). In that case, the court affirmed entry of judgment in favor of the accused infringer on the  
6 basis of patent invalidity due to obviousness. The court simply noted that the jury instruction used  
7 by the trial court included an instruction that “the prior art must show not only all of the elements of  
8 the claimed combination, but must contain some [teaching, etc.] to combine . . . .” Id. at 1564. The  
9 Court of Appeals found no error with the jury’s finding of obviousness under such an instruction.  
10 The question of whether the instruction stated too rigid a standard was not at issue. Finally, the  
11 district court in Abbot Labs. relied upon Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H.  
12 Patrick Co., 464 F.3d 1356 (Fed. Cir. 2006). Like Velander and U.S. Surgical Corp., the Dystar case  
13 affirmed a finding of obviousness. Focusing on the teaching-suggestion-motivation test, that  
14 opinion stated “Where, as here, all claim limitations are found in a number of prior art references,  
15 the factfinder must determine what the prior art teaches, whether it teaches away from the claimed  
16 invention, and whether it motivates a combination of teachings from different references.” Id. at  
17 1360 (citation and internal quotations omitted). Like the other cases, the rule as stated allows a  
18 finding of obviousness to be made through a combination of all prior art references and some  
19 teaching, suggestion, or motivation to combine; however, neither the holding nor the dicta supports  
20 the conclusion that a rigid “each and every limitation” rule stands as a requirement for any finding of  
21 obviousness.<sup>7</sup>

22         The Abbot Labs. case was appealed, and the Court of Appeals was presented with this issue.  
23 See Abbot Labs. v. Sandoz, 544 F.3d 1341 (2008) (affirming entry, and denying stay, of preliminary  
24 injunction). In that case, one circuit judge appeared to agree, albeit obliquely, with the district  
25 court’s assertions regarding the requirement that each and every element be present in the prior art.  
26 See id. at 1351 (Newman, C.J., concurring).<sup>8</sup> Another circuit judge strongly disagreed, writing that  
27 “a given claim limitation may be obvious over the prior art even if no single reference had  
28

1 specifically disclosed that limitation.” See id. at 1377 (Gajarsa, C.J., dissenting). Judge Gajarsa  
2 cited cases in support of this conclusion, although the relevant language in these opinions is also  
3 dicta. See Takeda Chem. Indus. v. Alphapharm Pty., Ltd., 492 F.3d 1350, 1356 (Fed. Cir. 2007)  
4 (“[S]tructural similarity between claimed and prior art subject matter [structurally similar  
5 compounds], proved by combining references *or otherwise*, where the prior art gives a reason or  
6 motivation to make the claimed compositions, creates a prima facie case of obviousness.”) (citation  
7 omitted) (emphasis added); Tegal Corp. v. Tokyo Electron Am., Inc., 257 F.3d 1331, 1349 (Fed. Cir.  
8 2001) (stating that district court’s finding that the single prior art reference does not disclose “metal  
9 wall” claim term does not preclude finding of obviousness of asserted claims). See also Al-Site  
10 Corp. v. VSI Int’l, Inc., 174 F.3d 1308, 1323 (Fed. Cir. 1999) (noting a party asserting invalidity  
11 must identify prior art references “which *alone or* combined with other references would have  
12 rendered the invention obvious to one of ordinary skill in the art at the time of invention”) (citations  
13 omitted) (emphasis added); Model Patent Jury Instructions for the Northern District of California  
14 (Oct. 9, 2007) § B.4.3b (“This means that . . . a person of ordinary skill in the field . . . who knew  
15 about all this prior art would have come up with the claimed invention.”).

16           It cannot be said that Federal Circuit precedent establishes that every single claim limitation  
17 must be identified in the prior art for a court to invalidate a patent claim on the basis of obviousness.  
18 Nor is it apparent that, even if there had been such a rule, KSR left it untouched. That unanimous  
19 Supreme Court decision dealt specifically with the teaching-suggestion-motivation test, but its reach  
20 was not explicitly limited to that issue; rather, the opinion set out principles implicating the non-  
21 obviousness analysis more generally. See, e.g., KSR, 550 U.S. at 401 (“Graham provided an  
22 expansive and flexible approach to the obviousness question that is inconsistent with the way the  
23 Federal Circuit applied its TSM test here.”). This court can discern no rigid “each and every  
24 limitation” rule in either the statutory language of section 103 or the flexible test set forth by the  
25 Supreme Court in Graham and reaffirmed in KSR. Accordingly, the fact that the final limitation of  
26 the ‘158 patent’s claim 5 is not disclosed in any piece of prior art here in evidence does not mean  
27 that the claim necessarily meets the requirement of non-obviousness.

1           Although the specific limitation of “an exhaust vent provided on the outer case that directly  
2 conducts air exhausted from the air outlet to the outside of the outer case” has not been identified in  
3 the prior art, the scope and content of the prior art and differences between the prior art and the  
4 claims at issue, in light of the level of ordinary skill in the art, support a finding of obviousness.  
5 Graham, 383 U.S. at 17-18. Nakamura draws ambient air into projectors and circulates and expels  
6 such air in order to cool hot projector components. Nakamura ‘s cooling system uses the same  
7 physical components used in the invention claimed by claim 5: two air intake ports, one or more  
8 exhaust vents, an outer case, an air outlet and the like. Moreover, the conducting of air from one  
9 part of the apparatus to another part, both directly and indirectly, is taught in Nakamura. Like the  
10 invention of claim 5, Nakamura teaches the use of multiple ventilating paths with their  
11 accompanying ducts and vents to cool a single projector. Claim 5 does not claim the specific spatial  
12 arrangement within the casing, i.e., specifically that given elements are nestled next to each other or  
13 are a certain shape or distance apart. The invention claimed by claim 5 is the arrangement of the  
14 cooling airways such that one airway goes directly through the power unit, with the purpose of more  
15 efficiently cooling it. See ‘158 Patent at 15:1-7.

16           There are a limited number of components requiring cooling inside a projector casing, and  
17 such a casing can contain only so many prior art air passageways. Where, as here, there is a finite  
18 number of identified, predictable solutions, success is likely the product not of innovation but  
19 ordinary skill and common sense. KSR, 550 U.S. at 421.<sup>9</sup> Seeking to increase the efficiency of  
20 cooling a power unit by arranging a prior art design with air ducts such that an air duct goes directly  
21 through the power unit is obvious under the “obvious to try” rationale approved by the Supreme  
22 Court and the Federal Circuit. See In re Kubin, 561 F.3d 1351, 1359 (Fed. Cir. 2009) (explaining  
23 permissible and impermissible applications of the “obvious to try” rationale).<sup>10</sup> Dedicating an  
24 airway to the power unit would have been obvious, and Seiko Epson has not offered evidence that  
25 the prior art teaches away from such an arrangement.<sup>11</sup> Nor has Seiko Epson presented any evidence  
26 of secondary considerations that would support non-obviousness, e.g., commercial success, long felt  
27 but unsolved needs, or the failure of others. KSR, 550 U.S. at 406; Graham, 383 U.S. at 17-18; see



1 also Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1327 (Fed. Cir. 2008). In sum, there is no  
2 genuine issue of material fact contradicting the conclusion that a person ordinarily skilled in the art,  
3 when confronted with the problem of more efficiently cooling the power unit, would at the time of  
4 invention have considered arranging a duct like those taught by Nakamura to directly cool the power  
5 unit and to directly exhaust the air from the power unit out of the casing. The differences between  
6 claim 5 and Nakamura are, as a matter of law, “such that the subject matter as a whole would have  
7 been obvious at the time the invention was made to a person having ordinary skill in the art to which  
8 said subject matter pertains.” See 35 U.S.C. § 103. In light of Nakamura, claim 5 is obvious as a  
9 matter of law.

10  
11 II. Seiko Epson’s ‘392 Patent

12 Coretronic argues that the asserted claims of the ‘392 patent are anticipated by both the  
13 Bergin patent and Seiko Epson’s ELP-5000XB projector or, alternatively, are obvious. Seiko Epson  
14 does not dispute Coretronic’s contention that both of these are prior art. Instead, Seiko Epson argues  
15 that neither piece of prior art practices the invention, because (1) Bergin does not disclose a spring  
16 or alignment reference surfaces; and (2) the ELP-5000XB’s reflector is not pressed and does not  
17 engage the accompanying lamp housing laterally. Seiko Epson also argues that Coretronic has not  
18 proven obviousness, because Coretronic’s expert does not indicate how the two references would be  
19 combined or what would motivate a person of ordinary skill in the art to combine the references.

20  
21 A. Anticipation

22 Bergin discloses a headlight assembly for use in an automobile. Like the ELP-5000XB,  
23 Bergin discloses wireform springs (two separate ones in the preferred embodiment) to press a lamp  
24 reflector against a lamp housing. See Payne Dec., Exh. G at 9:52-10:34. Bergin’s wireform springs  
25 also press the reflector forward, toward the center of the aperture, rather than to one side. See id.  
26 The relevant difference between Bergin and the ELP-5000XB is that Bergin discloses an external,  
27 projecting flange member having a plurality of protuberances around the front of the reflector. See

1 id. at 6:59-68. These protuberances line up with corresponding bosses located around the sides of  
2 the front of the lamp holder. See id. at 6:68-7:2. Coretronic asserts that each protuberance has a  
3 first and a second alignment surface that align with the corresponding boss. By engaging each  
4 protuberance with its respective boss, the wireform spring or springs align the alignment surfaces as  
5 required by claim 1, according to Coretronic. In this interpretation, there is not just one first  
6 reference surface and one second reference surface; rather, there are as many first and second  
7 reference surfaces as there are protuberances. Similarly, each boss possesses a first surface going in  
8 one direction and a second surface going in another.

9 Coretronic's theory for finding that Bergin meets the claim limitation requiring a first and  
10 second reference surface hinges upon, among other things, the notion that the reflector's  
11 protuberances are somehow inserted into the bosses on the lamp holder. This could be the case if  
12 Bergin's "bosses" were in fact depressions of some sort, such that the reflector's protuberances fit  
13 within the depressions. Yet even Coretronic's own expert appears to recognize that a "boss" is  
14 "something that juts out," rather than a depression. See Docket No. 340, Exh. B (Payne Depo.) at  
15 150; see also Random House College Dictionary (1982) (defining "boss" as a "protuberance" or a  
16 "stud"). Coretronic's theory appears to be, however, that the bosses, while themselves  
17 protuberances, each contain a cavity within them into which the reflector's protuberances fit. This  
18 theory is without merit, because the patent teaches no such cavities. While it might make apparent  
19 sense to align protuberances with cavities, the fact remains that Bergin does not disclose such a  
20 system. Indeed, it appears that the purpose of the protuberances and bosses may not have been to  
21 themselves physically align the lamp but rather to provide "aiming pads" allowing a manufacturer to  
22 determine the alignment and connect the reflector and the lamp housing in some other fashion. See  
23 Bergin at 7:31-37. Bergin does not anticipate the claims.

24 The ELP-5000XB is a projector practicing almost all of the limitations of claim 1 of the '392  
25 patent. For instance, the ELP-5000XB has a lamp assembly consisting of a light source lamp and a  
26 reflector. The reflector is held in place within a lamp housing by a wireform spring. Seiko Epson  
27 argues that the ELP-5000XB cannot anticipate claim 1 because it does not practice the limitation of  
28

1 “a spring that presses the reflector against the lamp housing so that the first alignment reference  
2 surface engages the first surface and the second alignment reference surface engages the second  
3 surface.” Specifically, Seiko Epson contends that the reflector does not exert a lateral force against  
4 the side of the lamp housing. According to Seiko Epson, the wireform spring supplies only  
5 downward pressure to the ELP-5000XB’s reflector, pressing said reflector in one direction, rather  
6 than along two reference surfaces extending in two different directions.

7 Indeed, Coretronic has provided no evidence that the ELP-5000XB’s wireform spring exerts  
8 pressure in a direction other than the downward direction.<sup>12</sup> Coretronic instead argues that claim 1  
9 does not contain a specific “lateral force” limitation.<sup>13</sup> While this observation is, strictly speaking,  
10 correct, the claim does specify that the reflector is engaged in two different directions. As  
11 demonstrated by Coretronic’s own evidence, the ELP-5000XB’s spring aligns the reflector in the  
12 center of the aperture, rather than against a side of the lamp housing. See Payne Dec., Exh. C.<sup>14</sup>  
13 However, there is no material dispute that the ELP-5000XB practices the other limitations of the  
14 claim.

15  
16 B. Non-Obviousness

17 Coretronic urges that the ‘329 patent claims are, if not anticipated, obvious. “The  
18 combination of familiar elements according to known methods is likely to be obvious when it does  
19 no more than yield predictable results.” KSR, 550 U.S. at 416. Indeed, the prior art ELP-5000XB  
20 contains every element of the ‘392 patent, except for the “presses the reflector against the lamp  
21 housing so that the first alignment reference surface engages the first surface and the second  
22 alignment reference surface engages the second surface” limitation. Engaging an object against two  
23 parallel surfaces to hold it in place is neither novel nor non-obvious. The bricks of the Great  
24 Pyramid at Giza were aligned by engaging multiple perpendicular surfaces of each brick against the  
25 surfaces of surrounding bricks. A floor tile inset into a floor is aligned along two surfaces with  
26 neighboring tiles to press it into the correct position. Common experience is replete with examples  
27 of the pressing of surfaces of one object against the surfaces of another to hold the object in place.

1 A claim is less likely to be obvious if the prior art teaches away from combining the claimed  
2 elements. KSR, 550 U.S. at 416. If, for instance, the prior art had taught that pressing the reflector  
3 against the housing should be avoided due to some obstacle that technique posed—perhaps such a  
4 design might make reflectors more vulnerable to damage caused by impacts, for instance—then a  
5 technique for overcoming the obstacle and thereby allowing improved alignment would be non-  
6 obvious. But that is not this patent. The ‘329 patent does not teach how to overcome any existing  
7 obstacle to pressing the reflector against the housing. Instead, it claims a design the simply presses a  
8 reflector against a housing. Seiko has presented no evidence that the prior art teaches away from a  
9 design in which the reflector is pressed against the sides of its housing.

10 Moreover, there are only so many ways to secure a reflector within a lamp housing. See  
11 KSR, 550 U.S. at 421. An ordinarily skilled artisan in this field is “one with a Bachelor’s degree in  
12 physics, engineering, optics or other related field who also is familiar with the design of projectors.”  
13 Claim Const. Order at 5. It is clear as a matter of law that an ordinarily skilled artisan using  
14 common sense would consider adjusting her prior art wireform spring to press the reflector against  
15 the surfaces of the housing.<sup>15</sup> There was also an apparent reason to combine the known elements in  
16 the fashion claimed by the ‘392 patent. See KSR, 550 U.S. at 418. The patent itself states that prior  
17 art projectors required accurate positioning in relation to the optical axis to efficiently use their  
18 luminous flux. ‘392 Patent at 1:30-36. The court’s non-obviousness analysis “need not seek out  
19 precise teachings directed to the specific subject matter of the challenged claim, for a court can take  
20 account of the inferences and creative steps that a person of ordinary skill in the art would employ.”  
21 Id. An ordinarily skilled artisan in this field would have been motivated to optimize the alignment  
22 of reflector and lamp housing and would have taken the step of modifying the reflector to press it up  
23 against the sides of the housing for stability. Finally, it must be noted that Seiko Epson has not  
24 offered any evidence regarding secondary considerations. See KSR, 550 U.S. at 406; Graham, 383  
25 U.S. at 17-18. Claim 1 of the ‘392 patent is obvious as a matter of law. Dependent claims 3, 4, 7, 9  
26 and 10 each recite some non-novel variant of claim 1 and are likewise invalid.

1 III. Coretronic’s ‘899 Patent

2 Seiko Epson has pointed to five pieces of prior art that, it argues, either anticipate the  
3 asserted claims of the ‘899 patent or render them obvious. None of these references were considered  
4 by the U.S. Patent and Trademark Office (USPTO) during the initial examination of the patent.  
5 Seiko Epson has also moved for a declaration that the ‘899 patent is unenforceable due to  
6 Coretronic’s failure to disclose its Optoma EzPro 730 projector to the USPTO during examination.  
7 In light of the following discussion, it is unnecessary to reach the merits of the anticipation or  
8 inequitable conduct arguments.

9 Seiko Epson contends that the combination of Miyashita and Kobayashi renders the ‘899  
10 claims at issue obvious to a person having ordinary skill in the art. Miyashita describes a system in  
11 which an image display device casing is provided with both an inner and outer structure. One way  
12 in which the device is cooled is through the transmission of heat from the inner casing into coupling  
13 members that transfer heat to specific locations on the outer casing. A second way in which the  
14 device is cooled is through the movement of air by a fan through the “space between the first  
15 casing . . . and the second casing.” Utermohlen Dec., Exh. 2 (“Miyashita”) at 1. The lamp is cooled  
16 by outside air flowing between the inner casing and the outer casing. Air is clearly shown flowing  
17 through the spaces bounded by the upper and lower surfaces of the inner lamp casing and the  
18 respective parts of the outer casing to which they are coupled. See id. at Figure 1.

19 Every element of the ‘899 patent’s claim 1, save one, can be found in Miyashita. The casing  
20 disclosed in Miyashita has an interior. There is a ventilation outlet on the casing and proximate to  
21 the side of the lamp assembly. The top and bottom of the inner casing define an upper air duct using  
22 an upper sheet and a lower air duct using a lower sheet. There is a fan located adjacent to the lamp  
23 holder. The missing element is “a lamp holder fixed in the interior of the casing, and having at least  
24 one guiding surface on one side near the lower edge of the lamp holder.” ‘899 Patent at 4:14-16.  
25 While something must hold the lamp in position, Miyashita does not describe in detail any sort of  
26 lamp holder.

27  
28

1 Kobayashi teaches this other element. It discloses a removable lamp holder. The lamp is  
2 cooled by air blown through a passage created between the cover of the aperture and a diagonal  
3 surface, a guide rib present in the bottom of the lamp holder. “[A]n air passage . . . is formed  
4 between the cover and the lamp holder so as to guide cooling air . . . .” Utermohlen Dec., Exh. 3  
5 (“Kobayashi”) at 6. In short, Kobayashi discloses a lamp holder with a guiding surface near the  
6 lower edge of the lamp holder.

7 Accordingly, each of claim 1’s elements is identifiable in the prior art. Moreover, an  
8 ordinarily skilled artisan would be expected to consider the step of augmenting Miyashita with  
9 Kobayashi’s guiding surface or surfaces. Guiding surfaces have often been used in cooling ducts to  
10 smooth out airflow (making it more laminar versus turbulent), reduce backpressure and provide for  
11 more controlled and efficient cooling. See Keller Dec. ¶ 16.<sup>16</sup> Anyone faced with designing an air  
12 duct must, by the very nature of the activity, consider how to position surfaces so as to direct air  
13 toward the desired target.<sup>17</sup> Both parties have alluded in their papers to market incentives to create  
14 projectors that dissipate heat more efficiently and effectively. Indeed, the broad range of prior art in  
15 evidence shows that many inventors have sought to do just that. Furthermore, Coretronic has  
16 presented no evidence that the prior art taught away from the modification of the Miyashita design  
17 with a lamp holder having leading surfaces. A skilled artisan, when faced with the demand for more  
18 efficient cooling, would without a doubt have considered such a modification.

19 Seiko Epson has clearly and convincingly established a prima facie case that claim 1 is  
20 obvious as a matter of law. Coretronic has not attempted to rebut this showing with evidence of  
21 secondary considerations. Instead, Coretronic argues that the combination of Miyashita and  
22 Kobayashi cannot render the ‘899 patent obvious because neither of these patents was directed  
23 toward the problem of cooling an outer casing. Precisely this sort of argument was addressed and  
24 rejected by the Court in KSR: “The second error of the Court of Appeals lay in its assumption that  
25 person of ordinary skill attempting to solve a problem will be led only to those elements of prior art  
26 designed to solve the same problem.” KSR at 420. As the Court noted, common sense teaches that  
27 “familiar items may have obvious uses beyond their primary purposes.” Id. Whether or not the  
28

1 prior art in question was expressly directed toward cooling the outer casing cannot control the result  
2 here.<sup>18</sup>

3 Claim 1 is invalid as a matter of law, and the '899 patent's dependent claims do not fare any  
4 better. Claims 2, 3 and 9 merely address the position of the lower sheet and represent no  
5 engineering innovation. Claims 7 and 11 are likewise minor variations of claim 1. This patent's  
6 purported innovation hinges on claim 1. Each of the challenged claims is invalid under section  
7 103(a) as a matter of law.

8  
9 CONCLUSION

10 For the reasons stated above, the court rules as follows. Defendants/counter-claimants'  
11 motion to invalidate claims 1 and 2 of the '158 patent is GRANTED on the basis of anticipation.  
12 Defendants/counter-claimants' motion to invalidate claim 5 of the '158 patent is GRANTED on the  
13 basis of obviousness. Defendants/counter-claimants' motion to invalidate claims 1, 3, 4, 7, 9 and 10  
14 of the '392 patent is GRANTED on the basis of obviousness. Plaintiff/counter-defendant's motion  
15 to invalidate claims 1, 2, 3, 7, 9 and 11 of the '899 patent is GRANTED on the basis of obviousness.

16  
17  
18 IT IS SO ORDERED.

19  
20 Dated: May 15, 2009

  
\_\_\_\_\_  
MARILYN HALL PATEL  
United States District Court Judge  
Northern District of California

1 **ENDNOTES**

2 1. Neither party has questioned the accuracy of any of the certified translations filed in connection  
3 with these motions.

4 2. Coretronic's Rule 56(f) motion to continue the hearing on Seiko Epson's motion for summary  
5 judgment, Docket No. 287, is DENIED as moot. The hearing on the cross-motions for summary  
6 judgment has already occurred, and this decision does not rely upon assertions of the ELP-3000  
7 projector's status as prior art.

8 3. There has been no showing that determining specifications or finalizing marketing requirements,  
9 see Bailey Dec. ¶ 5, is the same as active participation in the design of the technology itself.

10 4. The parties jointly requested clarification of the court's construction of "directly conducts  
11 cooling air" as "transmits cooling air without *reducing* its temperature to that of the air inside the outer  
12 casing of the projector." See Docket No. 198 (Joint Request for Clarification); Docket No. 183 (Claim  
13 Const. Order). The parties are correct that use of the word "reducing" was in error and that the correct  
14 word is "increasing."

15 5. The location and nature of the inlet required by claim 1 of the '158 patent is described in only  
16 general terms in the specification. See '158 Patent at 14:57-67; 5:32-38.

17 6. On the one hand, as Seiko Epson's expert points out, text references in Nakamura describe air  
18 passing "through the vicinity" of the power supply and then the light source, cooling both of them before  
19 being exhausted. See Nakamura at 7-8 (¶¶ 10 & 13). This suggests that the air does not "directly" exit  
20 the projector casing after cooling the power supply. On the other hand, the drawings illustrating  
21 embodiments of the invention show an air path with some air passing from the power unit over or near  
22 the light source and some air passing in a direct line from the power unit to the exhaust vent. See id.,  
23 Figures 2 & 3. The figures, at least, suggest that some air may pass directly out of the projector without  
24 cooling the light source.

25 7. Indeed, the tenor of these (pre-KSR) opinions suggests that where all elements had been  
26 identified in various prior art references, there was an *additional* requirement: a teaching, suggestion  
27 or motivation to combine. Where, on the other hand, obviousness was based on one piece of prior art,  
28 there was no need to identify a specific motivation to combine, since nothing was being combined.

Regarding claim 5, obviousness is apparent because the claim is an obvious extension of, or  
variant upon, Nakamura. The motivation to make such a variant is inherent to the nature of the goal  
expressly sought by the '158 patent and by the prior art: to achieve efficient cooling of projectors and  
their components.

8. Judge Newman wrote for a majority comprising herself and Judge Archer; however, Judge  
Archer did not join in Part I of the opinion, in which Judge Newman took up this issue. Judge Gajarsa  
dissented.

9. Designing configurations of familiar mechanical projector components does not involve the same  
level of unpredictability as, for example, the chemical arts. Cf. Eisai Co. Ltd. v. Dr. Reddy's Labs.,  
Ltd., 533 F.3d 1353, 1359 (Fed. Cir. 2008).

10. It is impermissible to invalidate a claim under an "obvious to try" rationale where what was  
"obvious to try" was either (1) "to vary all parameters or try each of numerous possible choices until  
one possibly arrived at a successful result, where the prior art gave either no indication of which  
parameters were critical or no direction as to which of many possible choices is likely to be successful"  
or (2) "to explore a new technology or general approach that seemed to be a promising field of



1 experimentation, where the prior art gave only general guidance as to the particular form of the claimed  
2 invention or how to achieve it.” Kubin, 561 F.3d at 1359.

3 11. It should also be noted that the final claim limitation of claim 5 “solves no stated problem and  
4 would be an obvious matter of design choice within the skill of the art.” Application of Kuhle, 526 F.2d  
5 553, 555 (C.C.P.A. 1975). The specification makes a number of references to the benefits of cooling  
6 air being conducted directly from an intake port to cool the hot projector components. See, e.g., ‘158  
7 Patent at 3:3-6; 13:19-22; 15:1-7. However, the patent contains no reference to any advantage to  
8 directly conducting air exhausted from the air outlet to outside the outer case, as opposed to using it to  
9 cool other components.

10 12. Coretronic did point to its expert’s opinion that a component of the lamp assembly which the  
11 expert calls a “sheet metal spring” exerts lateral pressure on the lamp. In its opposition, Seiko Epson  
12 responded by explaining, quite plausibly, that the item identified by Coretronic’s expert as a “sheet  
13 metal spring” did not exert lateral force, as it was actually one of four metal strips used to secure a glass  
14 cover over the lamp’s aperture. See Iechika Dec. ¶¶ 3-6 & Exhs. A-D. Coretronic did not dispute this  
15 explanation in its reply, thus conceding the point.

16 13. It may be noted that Coretronic opines, in its reply, that the springs in the ELP-5000XB lamp  
17 assembly are “almost identical” to those in the ELP-7300, a device that Coretronic asserts to have been  
18 admitted by Seiko Epson to be a commercial embodiment of the ‘392 patent. This being the case, the  
19 ELP-5000XB must *ipso facto* practice the invention, according to Coretronic. Apparently, counsel for  
20 Coretronic is unfamiliar with the old adage (doubtlessly coined by a judge): “‘Almost’ only counts in  
21 horseshoes and hand grenades.”

22 14. The wireform spring appears to push the reflector both downward and foreword toward the  
23 aperture. Coretronic has not argued that the lamp housing against which the front of the reflector is  
24 being pressed (in the direction of the aperture) should be considered one of the two alignment reference  
25 surfaces, perhaps because it does not “align” the reflector in any real sense.

26 15. It would also be well within the capability of the ordinarily skilled artisan to alter the surfaces  
27 of the reflector as needed to press them firmly against the sides of the housing.

28 Claim 1 quite clearly represents something that is “obvious to try” in the sense of the term  
approved by the Supreme Court and the Federal Circuit. See Kubin, 561 F.3d at 1359.

Coretronic did not rebut this testimony of Seiko Epson’s expert.

To state it another way, Coretronic has not shown that the combination of these elements yields  
anything “more than one would expect from such an arrangement.” See Sundance, Inc. v. Merlot  
Tarpaulin & Sidekit Mfg. Co., Inc., 550 F.3d 1356, 2008 U.S. App. LEXIS 26082 (Fed. Cir. Dec. 24,  
2008), at \*30, quoting Sakraida v. AG Pro, Inc., 425 U.S. 273, 282 (1976). The benefit of using a  
guiding surface to guide air within a projector would have been inescapably obvious to an ordinarily  
skilled artisan.

Coretronic also points out that Seiko Epson’s expert used a definition of a person of ordinary  
skill in the art that differs slightly from that adopted by the court in claim construction, in developing  
his opinion. The difference is insubstantial and does not affect the result here.