

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AEVOE CORP.,  
Petitioner,

v.

RACING OPTICS, INC.,  
Patent Owner.

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Case IPR2016-01165  
Patent 9,128,545 B2

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Before GRACE KARAFFA OBERMANN, JON B. TORNQUIST, and  
MICHELLE N. ANKENBRAND, *Administrative Patent Judges*.

ANKENBRAND, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
37 C.F.R. § 42.108

## I. INTRODUCTION

Aevoe Corp. (“Petitioner”) requests an *inter partes* review of claims 1, 3–5, and 7–9 of U.S. Patent No. 9,128,545 B2 (“the ’545 patent,” Ex. 1001). Paper 2 (“Pet.”). Racing Optics, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 42.4(a). We may not institute an *inter partes* review “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Applying that standard, and upon consideration of the information presented in the Petition and the Preliminary Response, we deny the Petition and do not institute an *inter partes* review.

### A. Related Proceedings

Petitioner identifies the following pending litigation involving the ’545 patent: *Racing Optics, Inc. v. Aevoe Corp.*, No. 2:15-cv-01774-RCJ-VCF (D. Nev.). Pet. 1. Petitioner also filed petitions seeking an *inter partes* review of U.S. Patent Nos. 9,104,256 (IPR2016-01164) and 9,274,625 (IPR2016-01166), which Petitioner represents are related to the ’545 patent. *Id.* at 1–2.

Patent Owner additionally identifies *Aevoe Corp. v. I-Blason LLC*, 2:15-cv-00149 (D. Nev.) and IPR2016-00231 as related matters. Paper 4, 1.

### B. The ’545 Patent

The ’545 patent, titled “Touch screen shield,” issued on September 8, 2015. The ’545 patent relates to “transparent films applied to touch sensitive screens for impact and/or scratch protection.” Ex. 1001, 1:15–16. The specification explains that touch sensitive screens on electronic devices,

such as the iPhone, are subject to scratching and cracking during normal use, and when dropped. *Id.* at 1:17–24. Although films that adhere to the touch sensitive screen are known in the art, those protective films, when adhered, “leave unsightly air bubbles” between the film and the glass face of the touch screen, and fail to provide impact absorption protection to the glass face. *Id.* at 1:31–36. Thus, the ’545 patent recognizes a need for a touch screen shield that cushions and absorbs impacts, but that does not interfere with the functionality and/or sensitivity of the touch screen or the quality of the image displayed. *Id.* at 1:25–30. The ’545 patent purports to fill that need by disclosing a shield that is attached to the touch sensitive screen of an electronic device only at the shield’s outer peripheral portion. *Id.* at Abstract, 1:45–50. According to the ’545 patent, attaching the shield in that manner traps air between the shield and the touch sensitive screen, which forms an air gap or planar air bearing between the two that “eliminates unwanted optical artifacts such as trapped [air] bubbles, Newton rings and chromatic interference while maintaining the sensitivity of the touch sensitive screen.” *Id.* at Abstract, 1:45–53, 4:2–5.

Figure 2 of the ’545 patent is reproduced below.

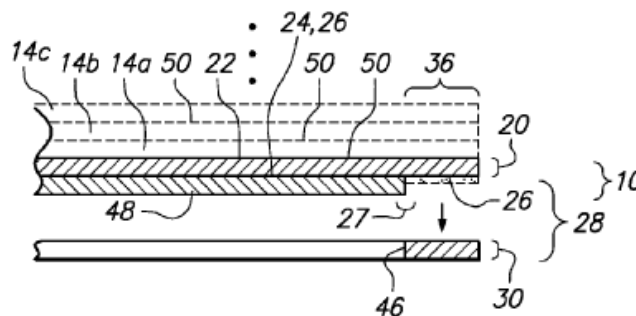


**FIG. 2**

Figure 2 is a cross-sectional view  
of an unmounted protective shield

In the Figure 2 embodiment, shield 10 comprises base transparent layer 20, which defines exposed side 22 and interior side 24. *Id.* at 4:6–8. Interior side 24 of base transparent layer 20 is coated with pressure sensitive adhesive 26, which protective liner 28 protects from exposure to dirt and grime prior to attachment to touch sensitive screen 12. *Id.* at 4:6–14, 5:6–11. Sacrificial layers 14a–n optionally may be mounted above base transparent layer 20 and individually removed as the topmost of those layers becomes “dented, scratched, etc.” *Id.* at 5:49–57.

“A cut or slit 46 may be made through protective liner 28 so as to define an outer peripheral portion 30 or annulus of the protective liner 28 and a central portion 48 of the protective liner 28.” *Id.* at 5:12–15 (emphasis omitted). When shield 10 is to be attached to an electronic device, the user removes peripheral portion 30 of protective liner 28, exposing adhesive 26, and creating step 27 between protective layer 28 and base transparent layer 20. *Id.* at 5:18–21, 5:26–28.

Figure 3 of the '545 patent is reproduced below.

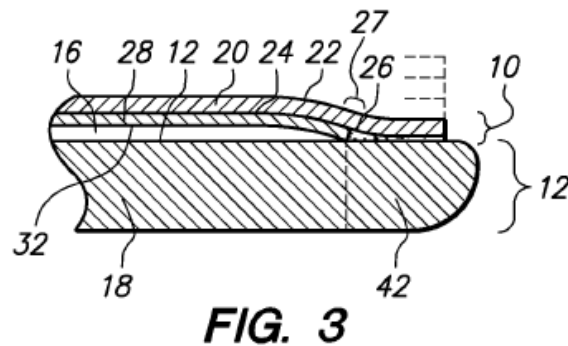


Figure 3 is a cross sectional view of the shield  
mounted to the electronic device

To mount shield 10 to touch sensitive screen 12, the user aligns shield 10 to touch sensitive screen 12 and applies pressure to outer peripheral portion 36 of base transparent layer 20, which causes adhesive 26 to adhere base layer

20 to touch sensitive screen 12. *Id.* at 5:29–33. Adhesive 26 traps air between base transparent layer 20 and touch sensitive screen 12 to form enclosed air gap 16. *Id.* at 5:35–37. The trapped air forms a planar bearing because base transparent layer 20 is tensioned about step 27. *Id.* at 4:25–26, 5:37–39. Specifically, enclosed air gap 16, in combination with the tension between step 27 and base transparent layer 20, lifts shield 10 off of touch screen 12 to form a planar bearing “to mitigate unwanted optical artifacts such as trapped air bubbles, Newton rings, and chromatic interference while maintaining the sensitivity of the touch screen [12].” *Id.* at 5:39–44.

Figures 4 and 5 depict a second embodiment of the shield, and are reproduced below.

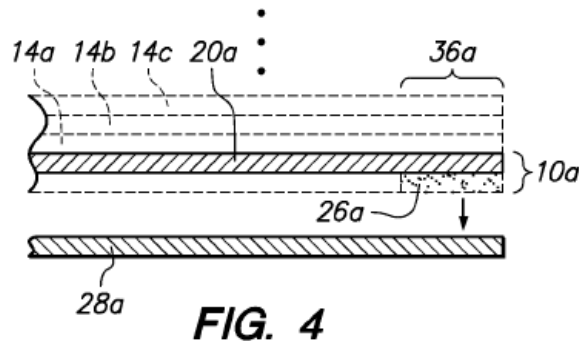


Figure 4 is a cross sectional view of a second embodiment of the unmounted shield

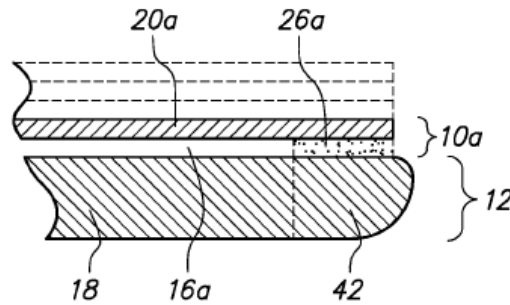


**FIG. 5**

Figure 5 is a cross sectional view of the second embodiment of the shield mounted to the electronic device

In the second embodiment, base transparent layer 20a is coated with a thick layer of adhesive 26a only on its outer peripheral portion 36a. *Id.* at 4:31–33, 5:1–5. Protective liner 28a is placed over adhesive 26a to protect adhesive 26a from dirt and grime prior to attachment to touch sensitive screen 12. *Id.* at 5:5–8. After removing protective liner 28a from shield 10a, the user aligns and adheres shield 10a to touch sensitive screen 12. *Id.* at 5:8–10. Upon attachment, air gap 16a is formed between base transparent layer 20a and touch sensitive screen 12, and thick adhesive 26a lifts base transparent layer 20a off the active area of touch screen 12 to form the planar air bearing. *Id.* at 5:12–16.

### *C. Illustrative Claim*

Claims 1 and 5 are independent claims of the '545 patent. Claim 1 is illustrative of the challenged claims and recites:

1. A combination electronic device and protective shield, the combination comprising:  
an electronic device having a touch sensitive screen that enables touch operation of the electronic device, the touch

sensitive screen having a touch sensitive electronic visual display;

a protective shield mounted to the touch sensitive screen of the electronic device via an adhesive layer, the adhesive layer disposed about an outer peripheral portion of the shield so that the adhesive layer surrounds a central portion of the shield, the shield having a shape that corresponds to the touch sensitive screen, and the central portion of the shield having a shape that corresponds to the touch sensitive electronic visual display,

wherein the central portion of the shield covers and is lifted off the touch sensitive electronic visual display, wherein air is trapped between the shield, the touch sensitive electronic visual display, and the adhesive layer, and wherein the touch sensitive electronic visual display maintains touch sensitivity through the shield.

Ex. 1001, 8:60–9:12.

Independent claim 5 recites a similar combination touch sensitive electronic device and transparent shield comprising an adhesive layer that “traps air between the shield and the touch sensitive screen.” *Id.* at 9:33–52. Claims 3, 4, 7, and 8 require that the adhesive layer (claims 3 and 7) or an annular film layer between the base transparent layer and the adhesive layer (claims 4 and 8) is sufficiently thick to lift the central portion of the shield off the touch sensitive screen. *Id.* at 9:21–24, 9:61–10:3. Claim 9 requires that “the trapped air forms a planar air bearing between the central portion of the shield and the touch sensitive screen.” *Id.* at 10:4–6.

*D. Proposed Grounds of Unpatentability*

Petitioner asserts that the challenged claims of the '545 patent are unpatentable based upon the following grounds:

| Reference(s)                                 | Statutory Basis | Claims Challenged |
|----------------------------------------------|-----------------|-------------------|
| Wilson <sup>1</sup> and Draheim <sup>2</sup> | § 103(a)        | 1, 5              |
| Kitaguchi <sup>3</sup>                       | § 102(b)        | 1, 5              |
| Kitaguchi and Murakami <sup>4</sup>          | § 103(a)        | 3, 4, 7–9         |

The Petition is supported by the Declaration of Darran Cairns, Ph.D. (Ex. 1005).

II. ANALYSIS

We address below whether the Petition meets the threshold showing for institution of an *inter partes* review under 35 U.S.C. § 314(a). We consider each ground of unpatentability in view of the understanding of a person of ordinary skill in the art. Petitioner's declarant, Dr. Cairns, testifies that a person of ordinary skill in connection with the '545 patent would have had a Bachelor's degree in engineering and three to five years of industry or post-graduate academic experience. Ex. 1005 ¶ 24.

At this stage of the proceeding, Patent Owner does not dispute Petitioner's definition of an ordinarily skilled artisan, which we adopt for

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<sup>1</sup> U.S. Patent No. 6,536,045 B1, issued on March 25, 2003 ("Wilson") (Ex. 1002).

<sup>2</sup> U.S. Patent No. 7,351,470 B2, issued on April 1, 2008 ("Draheim") (Ex. 1003).

<sup>3</sup> Japanese Patent Application Publication 2002-328613, published November 15, 2002 ("Kitaguchi") (Ex. 1004).

<sup>4</sup> U.S. Patent No. 6,250,765 B1, issued on June 26, 2001 ("Murakami").

purposes of this decision. We also find, for purposes of this decision, that the prior art itself is sufficient to demonstrate the level of ordinary skill in the art at the time of the invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art, itself, can reflect appropriate level of ordinary skill in art).

#### A. Claim Construction

The Board interprets claims in an unexpired patent using the “broadest reasonable construction in light of the specification of the patent.” 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, claim terms are given their ordinary and customary meaning in view of the specification, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

The parties do not direct us to any claim terms that are in controversy. *See* Pet. 4; *see generally* Prelim. Resp. Upon review of the parties’ arguments and supporting evidence, we determine that no claim term requires construction for purposes of this decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”).

*B. Compliance with 35 U.S.C. § 312 and the Trial Practice Rules*

The Petition identifies and discusses the disclosure of Murakami in the context of an asserted ground of unpatentability, including by specific citation in claim charts. Pet. 31–38. Patent Owner argues that Petitioner did not (1) list Murakami as an exhibit in the Petition, (2) file Murakami as an exhibit of record in this proceeding, or (3) serve Murakami on Patent Owner in connection with this proceeding. Prelim. Resp. 3. According to Patent Owner, those failures render the Petition defective under the statutory requirements of 35 U.S.C. § 312(a), and in violation of the regulatory requirements set forth in trial practice rules 37 C.F.R. §§ 42.6(c), 42.104(b)(4), 42.105, and 42.106. *Id.* at 3–5. Thus, Patent Owner argues that the Petition cannot be accorded a filing date. *Id.* at 5. Patent Owner further argues that we should reject any attempt by Petitioner to correct the Petition, or change the filing date of the Petition, because a complete Petition that includes Murakami as an exhibit would be time-barred under 35 U.S.C. § 315(b). *Id.* at 5–6.

For purposes of this decision, we need not determine whether the Petition should be denied for procedural deficiencies,<sup>5</sup> because, as explained below, even considering Murakami, we find that the Petition does not meet the threshold showing for institution of an *inter partes* review under 35 U.S.C. § 314(a).

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<sup>5</sup> On November 3, 2016, Petitioner sent an email to the Board requesting permission to correct the Petition by modifying the Exhibit List index and serving a copy of Murakami on Patent Owner. We deny Petitioner’s request as moot, given that we address the Petition as though Petitioner had filed Murakami as an exhibit.

*C. Asserted Obviousness Based on Wilson and Draheim*

Petitioner asserts that claims 1 and 5 are unpatentable under 35 U.S.C. § 103(a) because the subject matter of those claims would have been obvious over Wilson and Draheim. Pet. 10–21.

*1. Overview of Wilson*

Wilson is directed to multi-ply removable lens covers for “face shields and the like.” Ex. 1002, 1:19–24. Wilson explains that the multi-ply transparent lens covers previously known in the art suffered from reduced visibility due to the additive effects “of the optical index of refraction for each layer applied.” *Id.* at 1:43–46, 1:59–61. Wilson further explains it was known in the art that this problem could be overcome by “eliminating the air space between each successive layer of the multi-ply transparent lens” and “inserting an adhesive layer between each lens layer,” but when the modified film is applied to a large area “other problems arise”:

For example, when the bottom-most layer is adhered directly to the lens bubbles will appear, which bubbles are not easily removed because of the multi-layers over the bottom-most layer. *Moreover, if the adhesive is omitted from the bottom-most layer, then we are back to the original refraction problem of an air gap between the eye-protector lens and the bottom-most layer of the multi-ply transparent lens.* In addition, if the adhesive layer is removed from the interface between the bottom-most layer of the multi-ply stack and the lens of the face protector, then there remains the problem with the lens fogging up in the presence of moisture.

*Id.* at 1:61–2:12 (emphasis added).

To avoid those problems, Wilson discloses adhering the lens to a device only along its periphery. *Id.* at 2:21–24, 2:31. Wilson explains that the modification allows the “central area of the bottom-most layer of the

multi-ply transparent lens” to remain in place while avoiding air bubbles and fogging of the lens due to moisture. *Id.* at 2:32–37.

Figure 4 of Wilson is reproduced below.

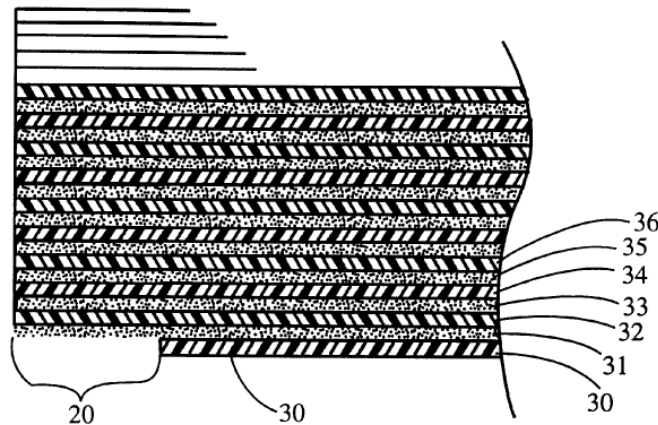


Fig. 4

Figure 4 is a partial cross sectional view illustrating the multi-ply film of Wilson

As shown in Figure 4, film layers 30, 32, 34, 36, etc. are bonded together by interposed adhesive layers 31, 33, 35, etc. *Id.* at 4:27–29, 4:47–50. “The thickness of each film layer typically ranges from 0.5 mil to 7 mil (1 mil is 0.001”),” with the preferred thickness being 2 mil. *Id.* at 4:15–17. The thickness of each adhesive layer is “nominal.” *Id.* at 4:18–20. A peripheral cut in bottommost film layer 30 exposes narrow strip 20 of adhesive layer 31, which is used to affix the multi-ply lens to the peripheral surface of the face protector. *Id.* at 4:36–41. According to Wilson, that “band of adhesive forms a seal which eliminates any moisture from the interface between the bottom-most lens and the [face] shield” and prevents the shield from “fogging up” due to moisture. *Id.* at 2:13–18, 2:35–36, 2:60–62.

## 2. Overview of *Draheim*

*Draheim* is directed to “an antireflection film for information displays,” including personal digital assistants, cell phones, and touch-sensitive screens. Ex. 1003, 1:20–21, 3:60–63. Figure 6 of *Draheim* is reproduced below.

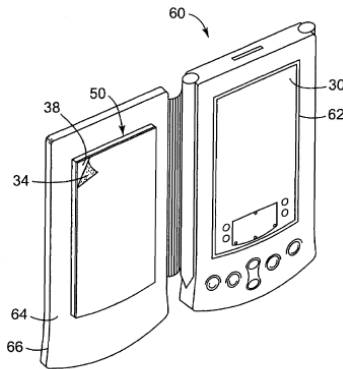


FIG. 6

Figure 6 shows PDA 60 to which antireflection film 30 has been applied

In Figure 6, antireflection layer 30 is coated with adhesive layer 34, which is optionally microtextured to help air bubbles escape from beneath the antireflection layer when it is applied to display screen 62. *Id.* at 4:54–64, 6:13–17. Antireflection film 30 “preferably is precut to slightly undersized dimensions so that the edges of antireflection film 30 extend nearly to the perimeter of display screen 62, while still permitting film 30 to be easily removed later if desired.” *Id.* at 6:25–30 (emphasis omitted).

## 3. Analysis

Challenged independent claims 1 and 5 require that air is trapped between the shield, the touch sensitive screen, and the adhesive layer (claim 1), or that the adhesive layer traps air between the shield and the touch sensitive screen adhesive layer (claim 5). Ex. 1001, 9:8–10, 9:50–52.

Petitioner contends that Wilson discloses those limitations. Pet. 11, 16–17, 20–21. Patent Owner disagrees. Prelim. Resp. 13–15, 27–31.

To demonstrate that air is trapped between the shield and the display in Wilson, Petitioner relies upon Wilson’s disclosure that the band of adhesive applied along the periphery of the lens “eliminates any moisture from the interface between the bottom-most lens and the shield” and “solves the fogging up problem by sealing out any moisture.” Pet. 17, 21 (quoting Ex. 1002, 2:35–36, 2:60–62). Petitioner does not explain sufficiently, however, why a disclosure that moisture is kept out of an interface would have indicated to one of ordinary skill in the art that air is trapped within the interface. Thus, we are not persuaded that Petitioner has presented sufficient argument or evidence to demonstrate that Wilson expressly discloses or suggests that air is trapped between the multi-ply lens and the face protector.

“[I]nherency may supply a missing claim limitation in an obviousness analysis.” See *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1194–95 (Fed. Cir. 2014). To establish an inherent disclosure, a party must show that the limitation at issue is “necessarily present” or “the natural result of the combination of elements explicitly disclosed by the prior art.” *Id.* at 1195–96 (citing *In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981). “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Oelrich*, 666 F.2d at 581 (citations omitted).

Petitioner contends that Wilson “teaches the same structural configuration (below left) as that taught for the ‘shield’ of the ’545 Patent (below right):”

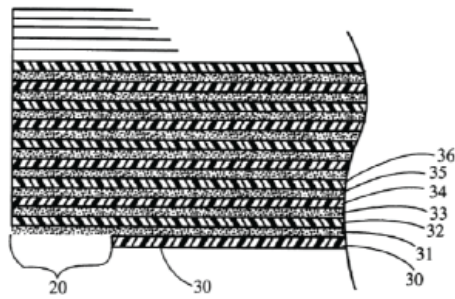


Fig. 4  
Wilson '045

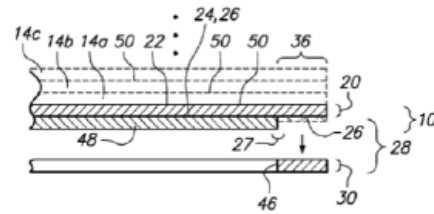


FIG. 2

'256 Patent

Pet. 11. Petitioner notes that the film layers in Wilson are constructed of the same polyethylene terephthalate material as the layers in the '545 patent, and the thickness of the film layers in Wilson—ranging “from 0.5 mil to 7 mil”—encompass the range taught in the '545 patent. *Id.* at 11–12 (citing Ex. 1002, 4:5–11, 4:15–16). In support of Petitioner’s arguments, Dr. Cairns testifies that step 27 in the '545 patent “causes the formation of the air gap between the shield and the display” and step 27 is “a structural property that will result from having a two layer construction with the peripheral edge of the lower layer removed.” Ex. 1005 ¶ 8.

Upon review of Petitioner’s arguments and recited testimony, we are not persuaded that Petitioner and Dr. Cairns provide sufficient credible evidence or argument to demonstrate that air would necessarily be trapped between Wilson’s shield and the device to which it is applied. First, Wilson discloses that “an air gap between the eye-protector lens and the bottom-most layer of the multi-ply transparent lens” is to be avoided. Ex. 1002, 2:4–8 (“Moreover, if the adhesive is omitted from the bottom-most layer, then we are back to the original problem of an air gap between the eye-protector lens and the bottom-most layer of the multi-ply transparent lens.”). That disclosure, which neither Petitioner nor Dr. Cairns address, strongly

suggests that an air gap is not “necessarily present” or a “natural result of the combination of elements explicitly disclosed” in Wilson.

Second, Petitioner does not demonstrate sufficiently that the structural configuration of Wilson, in conjunction with the disclosed methods of adhering Wilson’s shield to a device, would necessarily result in air being trapped between the film and the touch screen display. The minimum disclosed thickness of the film layers in Wilson is one-half that of the ’545 patent, i.e., 0.5 mil versus 1 mil. *Compare* Ex. 1001, 7:31–33, with Ex. 1002, 4:15–17. Wilson also discloses that selection of the width of narrow strip 20 is an important consideration, as a strip that is too narrow may result in the stack not staying in place and a strip that is too wide may result in problematic air bubbles. Ex. 1002, 4:52–58 (“Hence, I have discovered that the preferred width is as stated above, i.e., 1/8" to 1/2" in width.”). And, although both Wilson and the ’545 patent disclose aligning the shield over a device and then applying pressure to the outer peripheral portion of the shield to attach the shield, Ex. 1001, 5:29–33; Ex. 1002, 4:59–67, Wilson also discloses an alternate, preferred embodiment wherein narrow strip 20 is attached to the face protector “adjacent one end thereof and subsequently spread or pressed tightly against the front surface of the face protector.” Ex. 1002, 4:67–5:3.

Petitioner and Dr. Cairns do not address those potential differences in film thickness, adhesive strip width, or methods of attaching the shield in Wilson, or explain why those variables would be irrelevant to the formation of an air gap. Accordingly, we are not persuaded that Petitioner has set forth sufficient argument or evidence to meet “the high standard” for demonstrating inherency. *See PAR Pharm.*, 773 F.3d at 1196 (noting that a

party must “meet a high standard” in order to rely on inherency in the context of an obviousness analysis).

Thus, we determine that Petitioner has not demonstrated a reasonable likelihood that independent claims 1 or 5 would have been obvious over Wilson and Draheim.

*D. Asserted Anticipation Based on Kitaguchi*

Petitioner asserts that claims 1 and 5 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Kitaguchi. Pet. 21–31.

*1. Overview of Kitaguchi*

Kitaguchi<sup>6</sup> relates to a cover sheet or film that is used to protect a display screen of a device, including a liquid crystal display having a touch sensitive screen. Ex. 1004 ¶ 1. Kitaguchi explains that cover films that adhere to the entire surface of the display screen are problematic in that (1) a layer of air enters between the film and the display screen at the time the film is attached over the surface of the display screen, and (2) the plastic film adhered to the display screen generates Newton rings on the surface of the film, both of which make it difficult for a user to see the display. *Id.* ¶¶ 4, 6–7. To remedy those problems, Kitaguchi discloses a cover sheet comprising a transparent film with spacers formed by a plurality of dots on the surface of the film that faces the display screen. *Id.* ¶¶ 9–10.

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<sup>6</sup> Kitaguchi is a Japanese patent application publication for which Petitioner provides an English-language translation, as required by 37 C.F.R. § 42.63(b). Petitioner, however, fails to comply with all of the requirements of 37 C.F.R. § 42.63(b), as Petitioner does not provide an affidavit attesting to the accuracy of the translation. Notwithstanding Petitioner’s non-compliance, our citations are to the translation of record, which we assume is accurate for purposes of this decision.

Figure 1 of Kitaguchi is reproduced below.

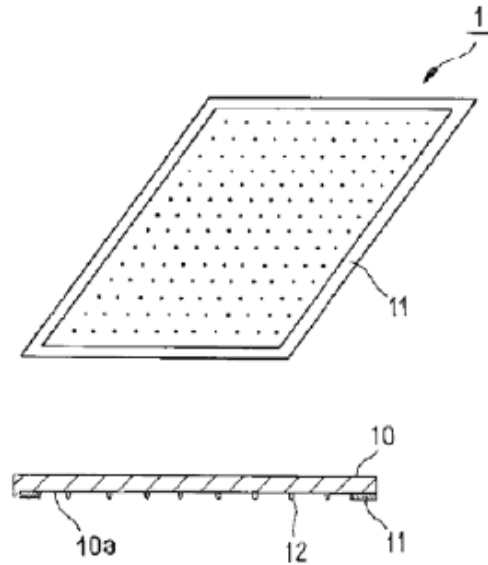


Figure 1 depicts an embodiment  
of the cover sheet

In Figure 1, cover sheet 1 comprises transparent and flexible plastic film 10, means 11 for fixing cover sheet 1 to a display screen in a freely attachable/detachable manner, and spacers 12 consisting of a plurality of dots formed on the surface facing the display screen of plastic film 10. *Id.* ¶ 14. In the Figure 1 embodiment, weak adhesive layer 11 is formed at a specified width along the periphery of surface 10a of plastic film 10. *Id.* ¶ 17. Alternatively, a material that has a weak adhesive layer on both sides, such as double-sided tape, may be used in place of weak adhesive layer 11. *Id.* ¶ 18. Spacers 12, formed of substantially transparent synthetic resin coating, maintain a suitable gap between the display screen and plastic film 10 during use, thereby inhibiting Newton rings from forming. *Id.* ¶¶ 20, 28. The dots making up spacers 12 are preferably about 0.05 mm–1 mm wide and about 3  $\mu$ m–1000  $\mu$ m in height. *Id.* ¶ 20.

## 2. Analysis

Petitioner argues that Kitaguchi discloses every limitation of claims 1 and 5 and, therefore, anticipates those claims. Pet. 21–31. Patent Owner disagrees. Prelim. Resp. 33, 35–38. To establish anticipation of a claim, each and every claim element, arranged as is recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008).

As explained above, Kitaguchi teaches that spacers 12, formed as a plurality of dots on the surface facing the display screen, maintain a uniform predetermined gap between the display screen and plastic film 10 of the cover sheet. *E.g.*, Ex. 1004 ¶¶ 9, 20, 28. As Patent Owner points out, Kitaguchi does not disclose expressly that air is trapped between the cover sheet and the display screen. Prelim. Resp. 36 (“Kitaguchi is directed to raised dots maintaining separation between the protector and display, and is silent as to whether air is trapped between the protector and the display.”). Petitioner asserts, however, that Kitaguchi discloses the same structural configuration for its cover sheet as the second configuration of the ’545 patent and, “[b]ecause **Kitaguchi** teaches that adhesive is placed along the outer periphery of the shield, air is necessarily trapped between the shield and the display.” Pet. 23, 26, 30–31. Petitioner relies on Dr. Cairns’s Declaration to support that argument. *Id.* at 26, 30–31 (citing Ex. 1005 ¶ 20).

When an anticipatory reference “is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence.” *Cont’l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). “To establish inherency, the extrinsic evidence ‘must

make clear that the missing descriptive matter is necessarily present in the thing described in the reference.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (citation omitted). Here, Petitioner does not show sufficiently that the structure and configuration of Kitaguchi’s cover sheet necessarily, or inherently, traps air. Although Petitioner refers to the use of an adhesive along the outer periphery of Kitaguchi’s cover sheet as creating a seal that traps air between the cover sheet and the display, that argument is unsupported by sufficient objective evidence. Indeed, Petitioner directs us only to Dr. Cairns’s bare opinion testimony that the “continuous adhesive layer [illustrated in Kitaguchi’s Figure 1 embodiment] would act as a seal and trap air between the film and the display surface in the same way described in the ’545 Patent.” Ex. 1005 ¶ 20. “Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.” 37 C.F.R. § 42.65(a) (opinion testimony that does not disclose underlying facts or data “is entitled to little or no weight”); *see Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985) (a lack of objective support for expert opinion “may render the testimony of little probative value in a validity determination”).

Accordingly, based on the record before us, Petitioner is not reasonably likely to prevail in showing that claims 1 and 5 are anticipated by Kitaguchi.

*E. Asserted Obviousness Based on Kitaguchi and Murakami*

Petitioner asserts that claims 3, 4, and 7–9 are unpatentable under 35 U.S.C. § 103(a) because the subject matter of those claims would have been obvious over Kitaguchi and Murakami. Pet. 31–39.

1. Overview of Murakami

Murakami<sup>7</sup> relates to “an antiglare sheet for use with a display of a portable game machine.” Ex. 3001, 1:6–7. Murakami explains that conventional films or sheets, which have adhesive applied to their entire surface, are difficult for a user to attach to a display screen and allow bubbles to become trapped between the film and the screen, impairing visibility of the screen. *Id.* at 1:59–64. The entrapped bubbles swell and expand with ambient temperature. *Id.* at 1:64–65.

To avoid those problems, Murakami discloses an antiglare sheet comprising an antiglare film element, an adhesive element, and a ventilation opening “adapted to ventilate a space defined by the display screen and film element.” *Id.* at 2:38–43. Figure 1 of Murakami is reproduced below.

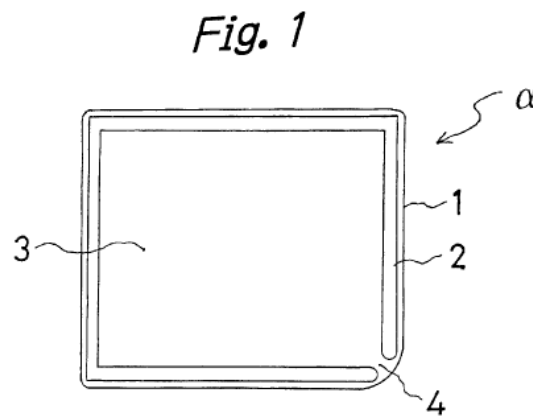


Figure 1 is a bottom view of one embodiment of an antiglare sheet for use with a game display

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<sup>7</sup> As explained previously, Petitioner did not file Murakami as an exhibit in this proceeding. *See supra* Section II.B. Petitioner, however, did file Murakami as an exhibit in IPR2016-01164 and IPR2016-01166, each of which challenges the claims of patents that are related to the ’545 patent. Pet. 2; Paper 4, 1. For purposes of this decision, we rely on the version of Murakami submitted as an exhibit in IPR2016-01164, which we enter as Exhibit 3001 in this proceeding.

In Figure 1, antiglare sheet  $\alpha$  includes film element 1, which serves as an antiglare sheet; adhesive element 2, which is adapted to affix film element 1 to the display of a portable game machine; and ventilation opening 4, which is located between opposite ends of adhesive element 2 and adapted to establish communication between an ambient air atmosphere and the interior of space 3. *Id.* at 3:60–4:2. Space 3 is formed between the display and film element 1 and has the thickness of adhesive element 2. *Id.* at 5:46–47. Adhesive element 2 assumes a discontinuous frame-shape in order to form ventilation opening 4. *Id.* at 5:52–54.

Figure 3 of Murakami is reproduced below.

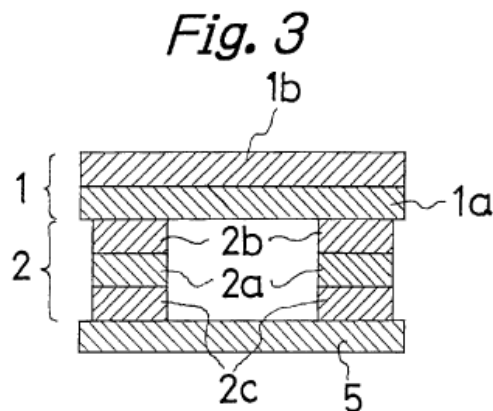


Figure 3 is a schematic sectional view of the antiglare sheet of Figure 1

As illustrated in Figure 3, film element 1 includes film base layer 1a and antiglare coat layer 1b, which is formed on film base layer 1a. *Id.* at 4:12–14. Adhesive element 2 includes adhesive base layer 2a; adhesion-to-film layer 2b, which is adapted to affix one side of adhesive base layer 2a to film element 1; and adhesion-to-display layer 2c, which is adapted to fix the other side of adhesive base layer 2a to the display. *Id.* at 4:44–49. Adhesive base layer 2a can have a thickness of 16  $\mu\text{m}$  to 25  $\mu\text{m}$ , adhesion-to-film layer 2b

can have a thickness of 20  $\mu\text{m}$  to 30  $\mu\text{m}$ , and adhesion-to-display layer 2c can have a thickness of 20  $\mu\text{m}$  to 30  $\mu\text{m}$ . *Id.* at 4:62–5:1.

## 2. Analysis

According to Petitioner, Kitaguchi discloses all of the limitations of claims 3, 4, and 7–9, except Kitaguchi does not explicitly disclose the scale of its adhesive thickness. Pet. 32. Petitioner relies on the above-referenced disclosures of Murakami as teaching a cover sheet having an adhesive or annular layer that is sufficiently thick to lift the film off of the touch screen. *Id.* at 32; *see id.* at 34–38 (claim chart citing Ex. 3001, 4:44–49, 4:62–63, 5:46–47, and Fig. 3). Petitioner asserts that an ordinarily skilled artisan would have utilized Murakami’s thick adhesive film to lift Kitaguchi’s cover sheet off of the touch screen because doing so would have been nothing more than the use of “known elements, in their ordinary way, to yield predictable results.” *Id.* at 33 (citing Ex. 1005 ¶¶ 29–31).

As explained above, Petitioner does not show sufficiently that Kitaguchi discloses air trapped between the shield, the touch sensitive screen, and the adhesive layer, as recited in claim 1, or that the adhesive layer traps air between the shield and the touch sensitive screen, as recited in claim 5. Petitioner does not rely on the teachings of Murakami to cure those deficiencies. Accordingly, based on the record before us, Petitioner is not reasonably likely to prevail in showing that the subject matter of claims 3, 4, and 7–9 would have been obvious over the combination of Kitaguchi and Murakami.

### III. CONCLUSION

Taking account of the information presented in the Petition and the Preliminary Response, and the evidence of record, we determine that Petitioner fails to demonstrate a reasonable likelihood of prevailing at trial as to any challenged claim. Accordingly, the Petition is *denied* and no trial is instituted.

### IV. ORDER

It is hereby

ORDERED that the Petition is *denied* and no trial is instituted.

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Patent 9,128,545 B2

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