

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HISENSE INTERNATIONAL CO. LTD. and
HISENSE INTERNATIONAL (HONG KONG) AMERICA
INVESTMENTS CO. LTD.,
Petitioner,

v.

VISTA PEAK VENTURES, LLC,
Patent Owner.

IPR2022-01425
Patent 7,593,070 B2

Before DONNA M. PRAISS, LARRY J. HUME, and
MICHELLE N. WORMMEESTER, *Administrative Patent Judges*.

HUME, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

On August 15, 2022, Hisense International Co. Ltd. et al. (“Petitioner”)¹ filed a Petition requesting *inter partes* review (“IPR”) of claims 1–12 of U.S. Patent No. 7,593,070 B2 (Ex. 1001, “the ’070 patent”). Paper 1 (“Pet.”). Vista Peak Ventures, LLC (“Patent Owner”) elected not to file a preliminary response. Paper 6 (“PO Waiver”). We have jurisdiction under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a).

An *inter partes* review may not be instituted unless “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least one of the claims challenged in the petition.” 35 U.S.C. § 314(a).

Based on the record in this proceeding, and for the reasons that follow, we institute an *inter partes* review as to all challenged claims of the ’070 patent based on all grounds presented.

II. BACKGROUND

A. *Related Proceedings*

The parties indicate that the ’070 patent has been asserted in various district court lawsuits, including: *Vista Peak Ventures, LLC v. Hisense Co. Ltd. et al.*, Case No. 2-21-cv-00263 (E.D. Tex.). Pet. 51; Paper 4 (PO Mandatory Notices) at 2 (also citing *Vista Peak Ventures, LLC v. Acer Inc.*

¹ Petitioner also identifies Hisense International (Hong Kong) America Investments Co. Ltd. as a real party in interest. Pet. 50. Petitioner further identifies Hisense Co. Ltd.; Hisense Visual Technology Co. Ltd.; Hisense Electronica Mexico S.A. de C.V.; Hisense Import & Export Co. Ltd.; Hisense International Co. Ltd.; Hisense International (HK) Co. Ltd.; and Hisense Electronica Mexico S.A. de C.V. as potential real parties in interest for purposes of the Petition. *Id.*

et al., Case No. 6-21-cv-01371 (W.D. Tex.) where Petitioner is not a party, and further citing multiple terminated proceedings against other entities that are not a party to this Petition).

The parties identify no other PTAB proceedings that challenge the '070 patent.² *See generally* Pet.; Paper 4.

B. Real Party in Interest (RPI)

Although Patent Owner is indicated as owning the '070 patent (*see* Paper 4 at 2), USPTO Assignment Recordation records (*see* Reel/Frame: 060654/0430; Received: 07/14/2022; Recorded: 07/14/2022) also reflect that Patent Owner assigned a security interest in the '070 Patent to the Getner Foundation, LLC, on July 14, 2022. Patent Owner is reminded of its continuing obligation to update its real party in interest information within 20 days of any change during the IPR. *See* 37 C.F.R. § 42.8(a)(3). The panel has no conflict with any of the Petitioner, Patent Owner, or the Getner Foundation, LLC.

C. The '070 Patent

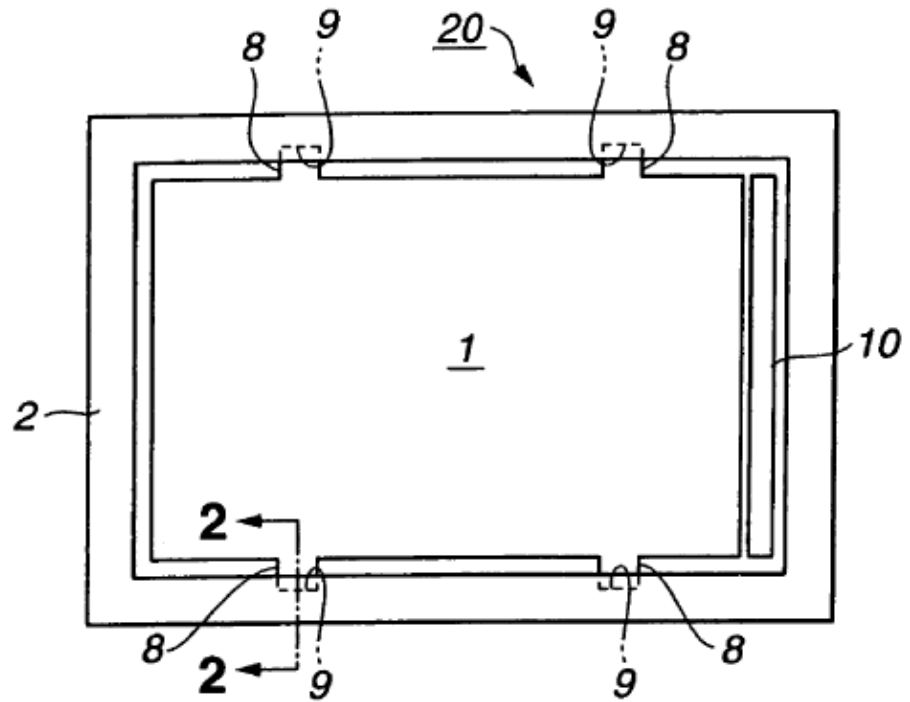
The '070 patent is titled “OPTICAL UNIT AND LCD DEVICE USING THE OPTICAL UNIT.” Ex. 1001, code (54). The application leading to this patent was filed on November 16, 2007, claiming benefit as a divisional application under 35 U.S.C. § 121 to an application filed on March 3, 2003, now issued as U.S. Patent 7,301,588. *Id.* at codes (22), (62).

² The parties are reminded of their continuing obligation to update their mandatory notices within 21 days of any relevant change, including changes in related matters. 37 C.F.R. §§ 42.8(a)(3), 42.8(b)(2).

The '070 patent describes the field of the invention as an optical unit for use in a liquid crystal display (LCD) device. Ex. 1001, 1:10–13. The '070 patent identifies personal digital assistants (PDAs) and mobile telephones as consumer products that use such LCD devices. *Id.* at 1:53–55. Disclosed embodiments of optical units are stated as capable of being “incorporated as a backlight in the usual manner as a component of LCD devices to illuminate LCD.” *Id.* at 5:39–41.

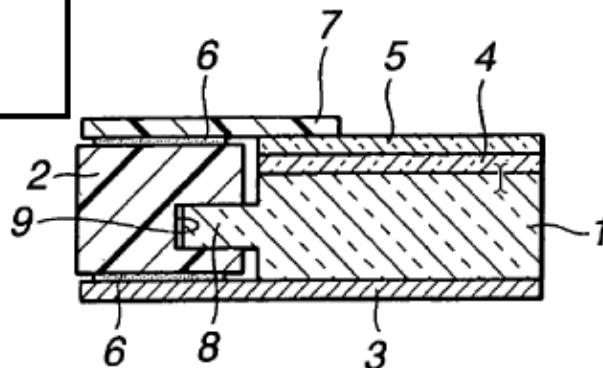
Figures 1 and 2 of the '070 patent are reproduced below, with Board annotation provided as an aid in understanding the disclosure and Petitioner's contentions:

FIG.1



- 1 is a light conductive plate
- 2 is a frame
- 3 is a light reflective sheet
- 4 is a lens sheet
- 5 is a diffusing sheet
- 6 is an adhesive
- 7 is an anti glare sheet
- 8 is a fixing projection
- 9 is a fixing hollow

FIG.2



“FIG. 1 is a plan view of one exemplary implementation of an optical unit . . . , with unnecessary elements removed to illustrate a frame and a light

conductive plate combined with the frame only to be stationary relative thereto. . . . [and] FIG. 2 is a cross section taken through the line 2–2 in FIG. 1.” *Id.* at 2:41–47 (figure annotation added by Board to map element numbers to their respective noun names).

The ’070 patent identifies “strong [market] demand for a reduction in thickness, weight and cost of LCD devices for beneficial application to the PDA and mobile telephones [such that] a need remains for a thin, light and inexpensive optical unit.” *Id.* at 1:55–59. The ’070 patent further identifies a “potential problem that the appropriate positional relationship between the light conductive plate and the frame may not hold if the light conductive plate is stressed against the light reflective sheet” (*id.* at 2:5–8), and that “[a]n object of the present invention is to provide a thin optical unit, in which a light conductive plate is reliably held in the appropriate positional relationship with the associated element(s).” *Id.* at 2:12–15.

To address the problems cited above, the ’070 patent discloses:

The light conductive plate 1 is combined with the frame 2 only to be stationary relative to it. In the illustrated optical unit 20, the light conductive plate 1 is held stationary, within the rectangular opening, relative to the frame 2. The light conductive plate 1 has four fixing projections 8, which are inserted into and received by four fixing hollows 9, respectively. The frame 2 is formed with the hollows 9. The four fixing hollows 9 are located in two opposed sides of the inner peripheral wall of the frame 2, two in one of the two opposed sides, the other two in the other side. The four fixing projections 8 are located in two opposite sides of the light conductive plate 1, two in one of the two opposite sides, the other two in the other side. With the fixing hollows 9 receiving the fixing projections 8, the frame 2 retains the light conductive plate 1.

On one of the four sides, the light conductive plate 1 has a light receiving edge positioned near a translucent tube 10. The light conductive plate 1 has a front surface and a rear surface. A

light reflective sheet 3 covers the entire area of the rear surface of the light conductive plate 1. At portion near the periphery, the light reflective sheet 3 is fast on one end surface of the frame 2 by adhesive 6, for example, a pressure sensitive adhesive double-coated tape. Optical sheets cover the front surface of the light conductive plate. In the illustrated optical unit 20, a lens sheet 4 covers the entire area of the front surface of the light conductive plate 1, and a diffusion sheet 5 covers the entire area of the surface of the lens sheet 4. An antiglare sheet 7, which is formed with a rectangular opening defining a light discharge region, is fast on the opposite end surface of the frame 2 by adhesive 6 in a manner to cross the boundary between the inner peripheral wall of the frame 2 and the light conductive plate 1. The antiglare sheet 7 keeps the diffusion sheet 5 and lens sheet 4 in appropriate position on the surface of the light conductive plate 1.

From the preceding description on the optical unit 20, it is appreciated that the frame 2 does not require a bottom end wall and retains the light conductive plate 1 by holding the sides of it. Employing the frame 2 without the bottom end wall makes great contribution to a reduction in thickness of the optical unit 20. A reduction in thickness as much as 20% has resulted from comparison of the optical unit 20 with the known optical unit 120.

Id. at 3:30–60.³

In summary, the '070 patent purports to “provide a thin optical unit, in which a light conductive plate is reliably held in the appropriate positional relationship with the associated element(s).” Ex. 1001, 2:12–15. In a separately claimed embodiment, the optical unit includes, *inter alia*, “a light

³ Compare Ex. 1001, 2:12–15, with Ex. 1003 ¶ 84 (“The '070 purported invention is an improved structure for *edge-lit* backlight units to liquid crystal displays.”) (emphasis added). Although Mr. Flasck cites Ex. 1001, 1:9–13 for support, we find this particular portion of the '070 patent is silent on any edge-lit features.

conductive plate; [and] a source of light arranged to impinge light to an edge of the light conductive plate.” *Id.* at 2:26–28.

D. Asserted Grounds of Unpatentability

Petitioner asserts the following three grounds of unpatentability of the ’070 patent (Pet. 3–4):

Ground	Claim(s) Challenged	35 U.S.C. ⁴ §	Reference(s)/Basis
1	1, 2, 4–8, 12	102(b)	Noguchi ⁵
2	1–8, 11, 12	103(a)	Noguchi, Kurihara ⁶
3	9, 10	103(a)	Noguchi, Oda ⁷

In support of its arguments, Petitioner relies on a Declaration of Richard A. Flasck (Ex. 1003) (hereinafter “Flasck Decl.”).

⁴ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. §§ 102 and 103 effective March 16, 2013. Because the challenged patent claims benefit from an application filed before that date, we refer to the pre-AIA version of the statute, but our findings and analysis would be the same under the current version of the statute.

⁵ US 5,497,293, filed June 7, 1994, issued Mar. 5, 1996. (Ex. 1005) (hereinafter “Noguchi”).

⁶ US 6,055,029, filed July 22, 1997, issued Apr. 25, 2000. (Ex. 1006) (hereinafter “Kurihara”).

⁷ US 6,099,135, filed July 30, 1998, issued Aug. 8, 2000. (Ex. 1007) (hereinafter “Oda”).

E. Illustrative Claims

Petitioner challenges all claims, 1 through 12, of the '070 patent. Of these, claim 1 is independent, and for purposes of this Decision, claims 1, 9, and 11 are representative of the challenged claims.

Independent claim 1 recites:

1. An optical unit, comprising:
 - [1a] a frame [2] surrounding an opening, the frame having a first surface and a second surface, placed directly across from the first surface of the frame;
 - [1b] a light conductive plate [1] positioned in the opening of the frame, the light conductive plate having a first Surface adjacent the first surface of the frame and a second surface adjacent the second surface of the frame;
 - [1c] a diffusion sheet [5] fastened to the first surface of the frame in a manner to cover at least a portion of the first surface of the frame and to cover the first surface of the light conductive plate; and
 - [1d] a light reflective sheet [3] fastened to the second surface of the frame in a manner to cover at least a portion of the second surface of the frame and to cover the second surface of the light conductive plate,
 - [1e] wherein the diffusion sheet [5] and the light reflective sheet [3] cooperate to fasten the light conductive plate [1] within the frame [2].

Ex. 1001 at 6:2–20 (bracketed labels and Petitioner's reference numbers as modified by the Board added corresponding to annotated Figures 1 and 2, *supra.*).

Dependent claim 9 recites:

9. The optical unit as claimed in claim 1, wherein a lens sheet [4] is squeezed between the diffusion sheet [5] and the first surface of the light conductive plate [1].

Id. at 6:43–45 (bracketed reference numbers added corresponding to annotated Figures 1 and 2, *supra.*).

Dependent claim 11 recites:

11. The optical unit as claimed in claim 1, wherein a pressure-sensitive adhesive double-coated tape [6] fastens the diffusion sheet [5] to the first surface of the frame [2].

Id. at 6:49–51 (bracketed reference numbers added corresponding to annotated Figures 1 and 2, *supra.*).

III. DISCUSSION

A. Level of Ordinary Skill in the Art

We consider the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Petitioner asserts:

[A] person of ordinary skill in the art (“POSITA”) in the technological field of the ’070 Patent would have possessed (i) a bachelor’s degree in mechanical engineering, optical engineering, or physics, or undergraduate training in an equivalent field, and (ii) at least two years of experience in the design and/or implementation of backlight units (BLUs) for liquid crystal displays (LCDs).

Pet. 4 (citing Ex. 1003 ¶ 79). Petitioner further states “[a]dditional graduate education could substitute for professional experience, and significant work experience could substitute for formal education.” *Id.*

Factors pertinent to determining the appropriate level of skill in the art include:

(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of

active workers in the field. . . . The patent's purpose can also be informative.

Best Medical Int'l, Inc. v. Elekta Inc., 46 F.4th 1346, 1353 (Fed. Cir. 2022) (citations omitted); *see also Environment Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983) (providing a similar list of non-exhaustive factors which may be considered in determining the level of ordinary skill in the art). In *Environment Designs*, the court further elaborated that it was not necessary for all factors to be present in every case, but that even a single factor can predominate in a case. *Environment Designs*, 713 F.2d at 696. The court held that a POSITA is not a judge, nor a nonprofessional, nor people who are skilled in remote arts, nor geniuses in the art at hand. *Id.* at 697.

In support of its proposal, Petitioner presents no specific argument or evidence relating to these factors, but instead simply cites Mr. Flasck's Declaration. *See* Pet. 4.

Mr. Flasck states that he determined the appropriate level of skill in the art based on his consideration of "several factors, including the types of problems encountered in the art, the solutions to those problems, the pace of innovation in the field, the sophistication of the technology, and the education level of active workers in the field," but also provides no analysis of the relevant factors. Ex. 1003 ¶ 79.

Patent Owner has waived its Preliminary Response, and therefore does not address the level of ordinary skill in the art. *See* PO Waiver.

For purposes of this Decision, we adopt Petitioner's description of the level of one of ordinary skill in the art. *See* Ex. 1003 ¶ 79.

To the extent the level of ordinary skill in the art is in dispute or makes a material difference in the obviousness analysis, the parties are invited to brief their respective positions during trial.

B. Claim Construction

In an IPR proceeding, we interpret claim terms using “the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). Under the principles set forth by our reviewing court, the “words of a claim ‘are generally given their ordinary and customary meaning,’” as would be understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

Petitioner states “for the purposes of this Petition, the Board does not need to explicitly construe any claim term and there are no known claim construction disputes that affect the outcome of this Petition.” Pet. 10. By not filing a preliminary response, Patent Owner did not address the construction of any claim terms or phrases. *See* PO Waiver.

At this time, we find it unnecessary to address the construction of any claim terms or phrases. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Legal Standards

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden of persuasion never shifts to the patent owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

“A single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation.” *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375–76 (Fed. Cir. 2005). To establish anticipation, each and every element in a claim, arranged as 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); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001).

Further, a “reference must describe the claimed invention with sufficient precision and detail to establish that the subject matter existed in the prior art.” *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1120 (Fed. Cir. 2002). The reference does not need to use the same terminology. *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015) (A reference anticipates if a person of skill in the art “would at once envisage the claimed arrangement or combination.” (internal quotation marks and citation omitted)). But, an ambiguous reference will not anticipate a claim. *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d

1272, 1284 (Fed. Cir. 2017). The dispositive question for anticipation is whether one skilled in the art would reasonably understand or infer from the reference that every claim element is disclosed. *Eli Lilly v. Los Angeles Biomedical Research Inst.*, 849 F.3d 1073, 1074–75 (Fed. Cir. 2017).

The legal question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.⁸ *Graham*, 383 U.S. at 17–18. One seeking to establish obviousness based on more than one reference also must articulate sufficient reasoning with rational underpinnings to combine teachings. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

D. Ground 1: Anticipation by Noguchi

Petitioner asserts that claims 1, 2, 4–8, and 12 of the ’070 patent are anticipated by Noguchi. Pet. 20–31. For the reasons explained below, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this ground.

We start with an overview of the asserted prior art, Noguchi.

1. Noguchi (Ex. 1005)

Noguchi describes “a surface illuminant device to be used, for example, as a backlight for liquid crystal display units, and more specifically a surface illuminant device which uses a light transmitter.” Ex. 1005, 1:5–8.

Petitioner annotates Noguchi’s Figure 1, which we reproduce below:

⁸ We note the current record before us does not include assertions or evidence of objective indicia of nonobviousness.

Noguchi Figure 1 (annotated)

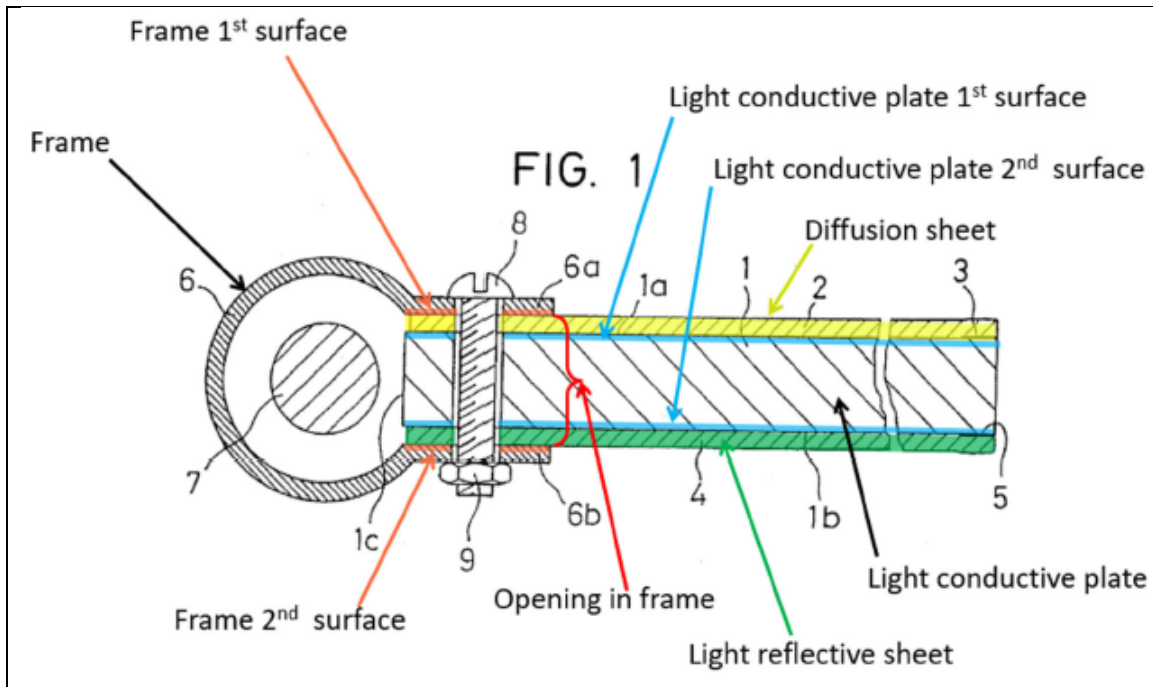


Figure 1 of Noguchi, as annotated by Petitioner, shows ‘a conventional surface illuminant device using the light transmitter.’ *See* Ex. 1005, 1:12–13. In this figure, 1 is the “Light transmitter” (light conductive Plate); 2 is the “diffuser sheet” (diffusion sheet); 4 is the “reflecting sheet” (light reflective sheet); 5 is double sided adhesive tape as taught by at least Kurihara (Noguchi at 1:19–25 also teaches that conventional systems use double sided adhesive tape); 6 is the “holder” (the frame); 6a and 6b are “collars,” i.e., parts of the holder/frame that have opposing surfaces to one another (6a is the frame first surface and 6b is the frame second surface); 7 is a light source such as a CCFL (a source of light); 8 is a bolt; and 9 is a nut.

2. Analysis

Turning now to the claims, we discuss independent claim 1 in detail (with bracketed labeling of each claim limitation added for ease of reference).

a) Preamble

As noted above, claim 1 recites “an optical unit, comprising.” Ex. 1001, 6:2. To the extent that the preamble might be considered a limitation, we find Noguchi discloses this limitation because Noguchi discloses an optical unit, i.e., “[a] surface illuminant device which is usable as a backlight for liquid crystal display units and does not allow a light diffusing sheet 2 or a reflecting sheet 4 to be slackened due to variations of temperature and humidity.” Pet. 20–21 citing Ex. 1005, Abstr., 1:5–8; Ex. 1003 ¶ 109. The optical unit is depicted in Noguchi’s annotated Figure 1, provided above.

Although we do not determine whether the preamble is limiting at this stage of the proceeding, we are persuaded, based on Petitioner’s argument and evidence (*see* Pet. 20–21), that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses the subject matter of the preamble.

b) Limitation [1a] “a frame”

Claim 1 recites “a frame surrounding an opening, the frame having a first surface and a second surface, placed directly across from the first surface of the frame.” Ex. 1001, 6:3–5. For this limitation, Petitioner asserts that element 6 in Figure 1 of Noguchi is a frame, and therefore discloses this limitation. Pet. 21. Petitioner explains, “Noguchi discloses that ‘reference numeral 6 designates a holder which has collars 6a and 6b sandwiching opposite ends of the light transmitter 1, the light diffusing sheet 2 and the reflecting sheet 4.’” *Id.* (quoting Ex. 1005, 1:26–29). Petitioner asserts “[a] POSITA would understand that holder 6 frames the

optical unit” (*id.* (citing Ex. 1003 ¶¶ 110–116)), and states “[t]he ’070 Patent describes a frame in a similar manner.” Pet. 22 (citing Ex. 1001, 1:35–37).

Petitioner further contends “[w]ith reference to Noguchi’s Figure 1, a POSITA would understand that the first surface is frame collar 6a and the second surface is frame collar 6b. . . . As depicted in Noguchi’s Figure 1, surface 6b is placed directly across from the first surface 6a of the frame and together define an opening where the light transmitter 1, diffusion sheet 2, and reflecting sheet 4 are inserted along with the light source 7” (*id.* (citing Ex. 1003 ¶¶ 110–116)), thus disclosing the frame “surrounding an opening having a first surface and a second surface placed directly across from the first surface of the frame,” as claimed. Pet. 22.

Based on Petitioner’s argument and evidence (*see* Pet. 21–22), we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses the “frame” of limitation [1a] arranged as recited in claim 1.

c) Limitation [1b] “a light conductive plate”

Claim 1 recites “a light conductive plate positioned in the opening of the frame, the light conductive plate having a first surface adjacent the first surface of the frame and a second surface adjacent the second surface of the frame.” Ex. 1001, 6:6–9. For this limitation, Petitioner asserts that “light transmitter 1” in Noguchi’s Figure 1 is described as “a rectangular plate-like light transmitter having adequate thickness and a proper area,” and therefore discloses this limitation. Pet. 22 (quoting Noguchi at 1:14–16). Petitioner further asserts that a POSITA “would understand that the light transmitter 1 meets the claimed ‘light conductive plate’ element.” Pet. 23 (citing Ex. 1003 at 117–123).

Petitioner also contends:

Noguchi's Figure 1 further depicts that the light conductive plate (light transmitter 1) "is positioned in the opening of the frame" (holder 6) as claimed. As further depicted in Noguchi's Figure 1, the light conductive plate (light transmitter 1) has "a first surface adjacent the first surface of the frame," marked as side 1a in Noguchi's Figure 1, and "a second surface adjacent the second surface of the frame," marked as side 1b in Noguchi's Figure 1.

Pet. 23.

Based on Petitioner's argument and evidence (*see* Pet. 22–23), we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses the "light conductive plate" of limitation [1b] arranged as recited in claim 1.

d) Limitation [1c] "a diffusion sheet"

Claim 1 recites "a diffusion sheet fastened to the first surface of the frame in a manner to cover at least a portion of the first surface of the frame and to cover the first surface of the light conductive plate." Ex. 1001, 6:10–13. For this limitation, Petitioner asserts that "diffusion sheet 2" in Figure 1 of Noguchi is described as being "fastened to the first surface of the frame (holder collar 6a) with bolt 8." Pet. 23, citing Ex. 1005, Fig. 1.

Noguchi further discloses "reference numeral 8 denotes a bolt inserted through holes which are coaxially bored through the collar 6a, the light diffusing sheet 2, the light transmitter 1, the reflecting sheet 4 and the collar 6b; and 9 is a nut which is screwed around an end of the bolt 8 protruding from a bottom surface of the collar 6b." Ex. 1005 at 1:36–42. Figure 1 of Noguchi also discloses the portion of limitation [c] reciting diffusion sheet 2 "cover[s] at least a portion of the first surface of the frame," (holder collar

6a) and ‘the first surface of the light conductive plate’ (light transmitter 1 and surface 1a).” Pet. 23–24 (citing Ex. 1005, Fig. 1).

Based on Petitioner’s argument and evidence (*see* Pet. 23–24), we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses the “diffusion sheet” of limitation [1c] arranged as recited in claim 1.

e) Limitation [1d] “a light reflective sheet”

Claim 1 recites “a light reflective sheet fastened to the second surface of the frame in a manner to cover at least a portion of the second surface of the frame and to cover the second surface of the light conductive plate.” Ex. 1001, 6:14–17. For this limitation, Petitioner asserts that “Noguchi’s Figure 1 depicts ‘reflecting sheet 4’ fastened to the second surface of the frame (holder collar 6b) with bolt 8.” Pet. 24 (citing Ex. 1005, Fig. 1). More specifically, “reference numeral 8 denotes a bolt inserted through holes which are coaxially bored through the collar 6a, the light diffusing sheet 2, the light transmitter 1, the reflecting sheet 4 and the collar 6b; and 9 is a nut which is screwed around an end of the bolt 8 protruding from a bottom surface of the collar 6b.” Ex. 1005, 1:36–42. As disclosed in Figure 1 of Noguchi, light reflecting sheet 4 is seen to “cover at least a portion of the second surface of the frame (holder collar 6b) and to cover the second surface of the light conductive plate (light transmitter 1 and surface 1b),” as claimed. *See* Pet. 24; Ex. 1001, Fig. 1.

Based on Petitioner’s argument and evidence (*see* Pet. 24), we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses the “light reflective sheet” of limitation [1d] arranged as recited in claim 1.

f) Limitation [1e] “wherein the diffusion sheet and the light reflective sheet cooperate . . .”

Claim 1 recites “wherein the diffusion sheet and the light reflective sheet cooperate to fasten the light conductive plate within the frame.” Ex. 1001, 6:18–20. For this limitation, Petitioner asserts that Figure 1 of Noguchi discloses “a diffusion sheet (diffusing sheet 2) and light reflecting sheet (reflecting sheet 4) that cooperate to hold fast a light conductive plate (light transmitter 1) in combination with a bolt 8 and holder collar surfaces 6a and 6b” (Pet. 25), and that “[a] POSITA would understand that Noguchi’s Figure 1 configuration” illustrates that the claimed cooperation between the diffusion sheet, reflective sheet, and light conductive plate results from “all three components [being] configured to accept fastening bolt 8 and based on their respective placements in the configuration.” *Id.* (citing Ex. 1001, 1:36–39). “The reference numeral 8 denotes a bolt inserted through holes which are coaxially bored through the collar 6a, the light diffusing sheet 2, the light transmitter 1, the reflecting sheet 4 and the collar 6b; and 9 is a nut which is screwed around an end of the bolt 8 protruding from a bottom surface of the collar 6b.” Ex. 1005, 1:36–42.

Based on Petitioner’s argument and evidence (*see* Pet. 25), and lacking any specific claim construction of the term “cooperate” by Patent Owner, we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses that “the diffusion sheet and the light reflective sheet cooperate to fasten the light conductive plate within the frame” as recited in claim 1, limitation [1e].⁹

⁹ To the extent it may become relevant during trial, we invite the parties to be prepared to offer briefing on construction of the limitation in the ’070 patent that recites “wherein the diffusion sheet and the light reflective sheet

3. *Summary*

In view of the foregoing, we determine that Petitioner has demonstrated a reasonable likelihood of showing that Noguchi discloses all limitations of claim 1, and that claim 1 thus is anticipated by Noguchi. Claims 2, 4–8, and 12 depend from claim 1. Having reviewed Petitioner’s arguments asserting that claims 2, 4–8, and 12 are anticipated by Noguchi (*see* Pet. 25–31), we also determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertions as to these dependent claims.

E. Ground 2: Obviousness over Noguchi and Kurihara

Petitioner contends that the subject matter of claims 1–8, 11, and 12 would have been obvious over Noguchi (Ex. 1005) in combination with Kurihara (Ex. 1006). Pet. 31–48.

We have considered Petitioner’s arguments and the evidence presented at this stage, and we address them in the context of representative claims 1 and 11. For the reasons explained below, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that the subject matter of claims 1 and 11 would have been obvious over the combination of Noguchi and Kurihara.

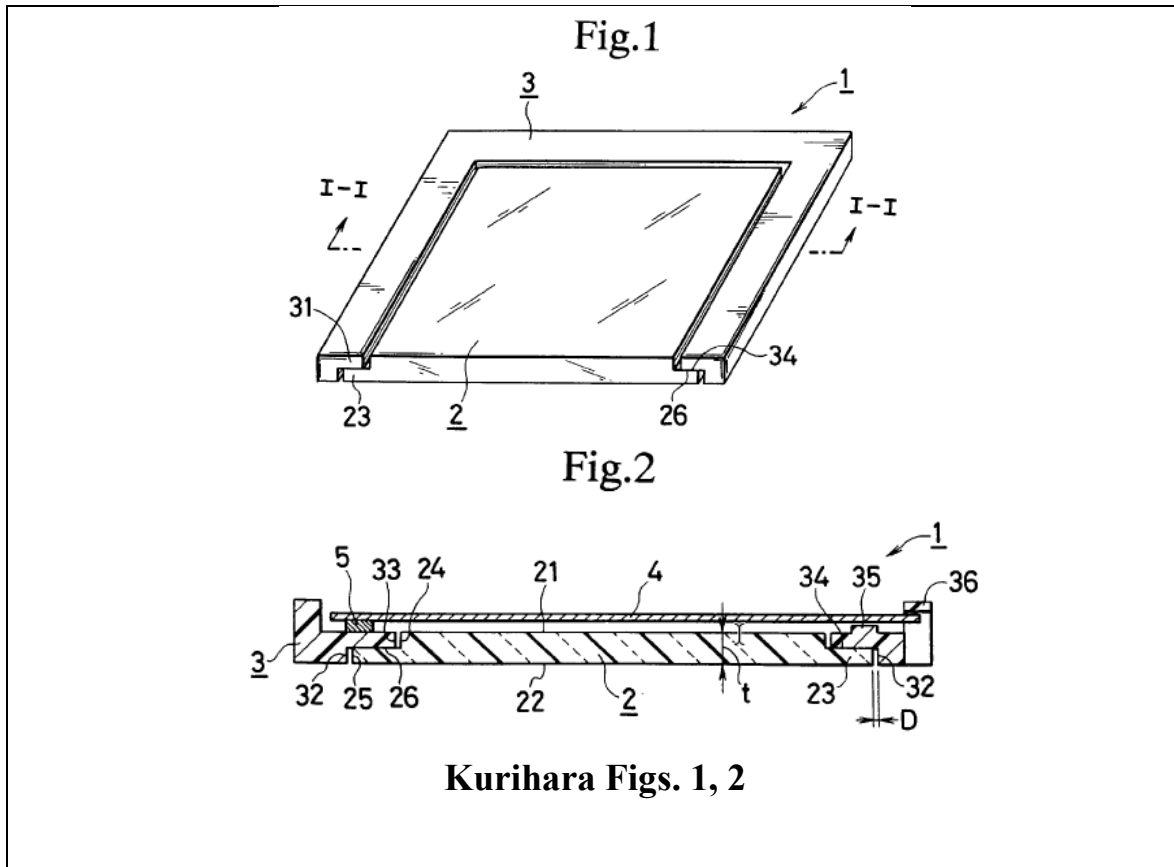
Noguchi is described above. *See supra* Part III.E.1.

cooperate to fasten the light conductive plate within the frame.” Ex. 1001 (claim 1) (emphasis added).

I. Kurihara (Ex. 1006)

Kurihara describes “a backlighting system for illuminating a liquid crystal display as used in a display unit of a portable computer, portable or car TV receiver or the like.” Ex. 1006, 1:9–11.

As an aid to understanding Kurihara’s disclosure, we reproduce Kurihara’s Figures 1 and 2, below:



As described in Kurihara, “FIG. 1 is a perspective view of a backlighting apparatus for a liquid crystal display according to an embodiment of the present invention; [and] FIG. 2 is a sectional view taken on line [I-I] of FIG. 1.” See Ex. 1006, 2:25–28.

In Figures 1 and 2 of Kurihara, reference number 1 is a backlighting apparatus for LCD in which element 2 is a light guiding plate joined at flange surfaces 26 and 34 with frame 3, having diffusion sheet 4 connected

to frame 3 by double-coated adhesive tape 5 to cover illuminated surface 21. Further, reference number 22 is a rear surface side of light guiding plate 2. Flange portion 23 of light guiding plate 2 is received in flange receiving portion 31 of frame 3. Space D is provided between end surface 24 of light guiding plate 2 and inner end surface 33 of frame 3 and between end surface 25 of the flange portion of light guiding plate 2 and end surface 32 of receiving portion 31 of frame 3. Pillow portion 35 and bridging portion 36 are formed in a portion of the frame 3 where a free end side of diffusion sheet 4 is positioned so that the free end side of diffusion sheet 4 is sandwiched between pillow portion 35 and bridging portion 36 such that diffusion sheet 4 is slidable and held at a predetermined position. *See* Ex. 1006, 2:45–4:38.

Kurihara describes how its backlighting apparatus results in reduced thickness and size.

[Because] backlighting apparatus 1 for [a] liquid crystal display is constituted such that a light guiding plate 2 and a frame 3 are molded together as a single unit provided with a deformation relaxation design, an attaching unit and parts, such as attaching feet and screws, for attaching the light guiding plate 2 to the frame 3 are not required, thereby making it possible to reduce the thickness and size of the backlighting apparatus.

Ex. 1006, Abstr.

2. *Analysis*

Turning now to the claims, we discuss independent claim 1 in detail (with bracketed labeling added for ease of reference).

a) Claim 1 Preamble

The preamble of claim 1 recites “an optical unit, comprising.” Ex. 1001, 6:2. To the extent that the preamble might be considered a limitation, we find Noguchi discloses this limitation. We incorporate by reference herein our findings and analysis, *supra*. See Part III.E.2.a.

b) Limitation [1a] “a frame”

Claim 1 recites “a frame surrounding an opening, the frame having a first surface and a second surface, placed directly across from the first surface of the frame.” Ex. 1001, 6:3–5. Noguchi discloses this limitation. We incorporate by reference herein our findings and analysis, *supra*. See Part III.E.2.b.

c) Limitation [1b] “a light conductive plate”

Claim 1 recites “a light conductive plate positioned in the opening of the frame, the light conductive plate having a first surface adjacent the first surface of the frame and a second surface adjacent the second surface of the frame.” Ex. 1001, 6:6–9. Noguchi discloses this limitation. We incorporate by reference herein our findings and analysis, *supra*. See Part III.E.2.c.

d) Limitation [1c] “a diffusion sheet”

Claim 1 recites “a diffusion sheet fastened to the first surface of the frame in a manner to cover at least a portion of the first surface of the frame

and to cover the first surface of the light conductive plate.” Ex. 1001, 6:10–13. Noguchi discloses this limitation. *See* Part III.E.2.d.

Under an alternative claim interpretation proffered by Petitioner (*see* Pet. 32–37), and to the extent that claim 1 may be construed during trial to require that the diffusion sheet be disposed on an outward face of a frame, we find that Noguchi in combination with Kurihara teaches or suggests this limitation under that alternative construction.

“[I]n Kurihara’s Figures 1 and 2, Kurihara teaches that a light conductive plate (light guiding plate 2) can be formed with flange protrusions 23 on either end[,] and the frame (frame 3) can be formed with flange protrusion–receiving portion.” Pet. 33. “In this way[,] the light guiding plate 2 and the frame 3 are joined together at their flange surfaces 26 and 34 to be integrated into a single unit.” Ex. 1006 at 3:15–17.

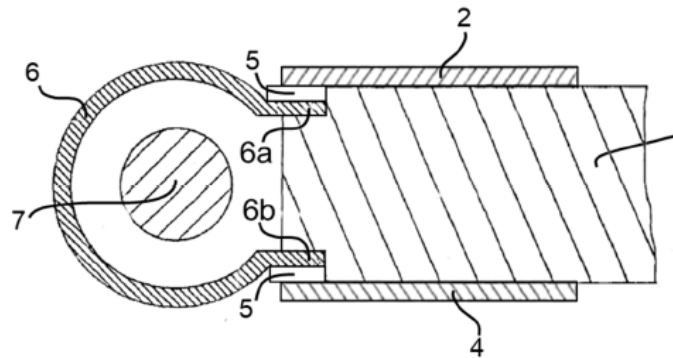
While Noguchi teaches that the configuration of Figure 1 is fastened together with a bolt, thus adding thickness, Kurihara improves on the device thickness by forming “the light conductive plate and frame together as a single unit.” Pet. 33 (citing Ex. 1006, Abstr.) Petitioner contends,

Kurihara further teaches that with the light conductive plate (light guiding plate 2) formed as single a unit with the frame (frame 3) through the protruding flange portions and flange-receiving area, other sheets surrounding the light conductive plate, such as the diffusion sheet 4 in Kurihara’s Figure 2, can be attached directly to the frame on a surface opposite the flange-receiving portion. Specifically, with reference to Kurihara’s Figure 2 . . . , the diffusion sheet 4 is attached to frame 3 with adhesive 5. Kurihara explains: “The frame 3 is substantially U-shaped and made from a white opaque resin, and the *diffusion sheet 4 is connected to the frame 3 to cover the illuminated surface 21*”. . . . Kurihara further explains that the prior-art designs also were configured in a similar manner through attaching sheets such as a diffusion

sheet directly to a light conductive plate and/or a frame through double-sided adhesive tape.

Pet. 34–35 (quoting Ex. 1006, 2:57–59, 1:43–50).

An annotated depiction of Noguchi's design, as modified by Kurihara, and as provided by Mr. Flasck, is provided below (*see* Pet. 37; *and see* Ex. 1003 ¶¶ 192–193):



**Petitioner's Annotated Depiction of Noguchi's Design
as Modified by Kurihara**

The above annotated figure represents the configuration of Noguchi as modified by Kurihara with respect to the location of diffusion sheet 2 on an outward face of frame 6a. *See* Ex. 1003 ¶¶ 192–193.

In the annotated figure above, 1 is the Noguchi light transmitter; 2 is the Noguchi diffusion sheet; 4 is the Noguchi reflecting sheet; 5 is double sided adhesive tape as taught by at least Kurihara (Noguchi at 1:19–25 also teaches that conventional systems use double sided adhesive tape); 6 is Noguchi's frame; 6a is the frame first surface and 6b is the frame second surface; and 7 is Noguchi's light source.

We further note Kurihara teaches:

[A] backlighting apparatus for liquid crystal display is disclosed including a light guiding plate and a frame that are molded together as a single unit by a deformation relaxation design. *A mechanism, for attaching the light guiding plate to the frame*

such as screws, and other attaching parts, is not required. The backlighting apparatus for liquid crystal display, which in previous systems has been restricted by the sizes of the attaching feet and screws, can be made thinner than that of the prior art, thereby making it possible to further reduce the size and weight of an apparatus which employs this type of backlighting apparatus for liquid crystal display.

Ex. 1006 at 5:9–20 (emphasis added).

With respect to the motivation a POSITA would have to modify the teachings of Noguchi, which utilizes a bolt to connect the display elements, with Kurihara’s boltless, flanged approach, a POSITA would be motivated to reduce the thickness of the optical unit by eliminating the bolt. *See* Pet. 35, citing Ex. 1003 ¶¶ 188–193. “Like the ’070 Patent, Noguchi and Kurihara are in the analogous art of liquid crystal display technologies. Both strive to meet the strong demand in the art for reduction in thickness, weight, and cost of LCD devices.” Pet. 35; *see also* Pet. 36–37; Ex. 1003 ¶¶ 192–193.

We find that Petitioner has provided sufficient “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” in combining Noguchi with Kurihara. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (cited with approval in *KSR*, 550 U.S. at 418).

Based on Petitioner’s argument and evidence (*see* Pet. 32–37), we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi in combination with Kurihara teaches or suggests the “diffusion sheet” of limitation [1c] arranged as recited in claim 1 under the alternative interpretation proffered by Petitioner.

e) Limitation [1d] “a light reflective sheet”

Claim 1 recites “a light reflective sheet fastened to the second surface of the frame in a manner to cover at least a portion of the second surface of the frame and to cover the second surface of the light conductive plate.”

Ex. 1001, 6:14–17. Noguchi discloses this limitation. *See* Part III.E.2.e).

Under an alternative claim interpretation proffered by Petitioner (*see* Pet. 38–39), and to the extent that claim 1 may be construed during trial to require that a reflective sheet be disposed on an outward face of a frame, we find that Noguchi in combination with Kurihara teaches or suggests this limitation under the alternative construction for the same reasons set forth above. *See* Part III.F.2.d).

In addition, on this record, and for purposes of this Decision, we agree that

a POSITA would find it obvious, in view of Kurihara’s bolt-reduction teaching, to attach Noguchi’s reflective sheet 4 to the frame using double-sided adhesive tape in order to add stability to the configuration particularly in view of Noguchi’s express teaching that leaving the ends of the reflecting and diffusion sheet free (i.e., not fastened) may result in the sheets tearing off the light conductor plate and allowing dust to enter the system. *See* Ex. 1005 at 2:1–15. Attaching sheets in optical systems to the frame and/or a light conductive plate was well known to a POSITA, and a POSITA would understand that attaching to both the frame and light conductive plate adds greater stability. Ex. 1003 at ¶¶ 194-197.

Pet. 38.

Based on Petitioner’s argument and evidence (*see* Pet. 38–39), we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi in combination with Kurihara teaches or suggests the

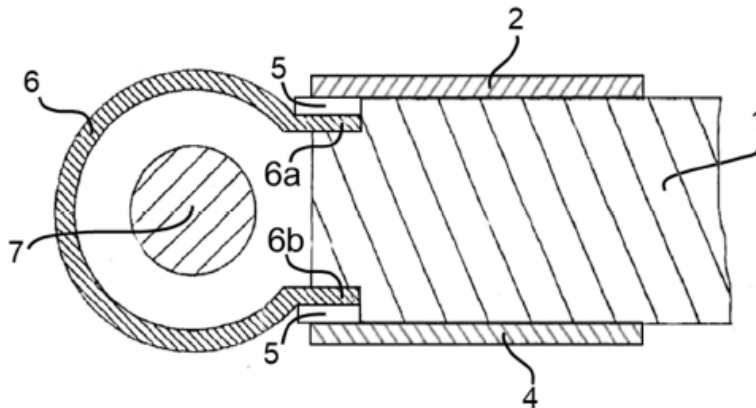
“light reflective sheet” of limitation [1d] arranged as recited in claim 1 under the alternative interpretation proffered by Petitioner.

f) Limitation [1e] “wherein the diffusion sheet and the light reflective sheet cooperate . . .”

Claim 1 recites “wherein the diffusion sheet and the light reflective sheet cooperate to fasten the light conductive plate within the frame.”

Ex. 1001, 6:18–20. Noguchi discloses this limitation. *See* Part III.E.2.f).

Under an alternative claim interpretation proffered by Petitioner (*see* Pet. 39), and to the extent that claim 1 may be construed during trial to require that a diffusion sheet be disposed on an outward face of a frame, we find that Noguchi in combination with Kurihara teaches or suggests this limitation under the alternative construction for the same reasons set forth above. *See* Part III.F.2.d. A portion of the modified design of Noguchi presented above follows:



Modified Noguchi Design

The modified Noguchi design depicted above shows that Noguchi’s diffusion sheet 2 and reflective sheet 4 “cooperate” to fasten light transmitter 1 (light conductive plate) within frame 6 using adhesive 5. *See* Pet. 39.

Based on Petitioner’s argument and evidence (*see* Pet. 39–40), and lacking any specific claim construction of the term “cooperate” by Patent Owner, we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi in combination with Kurihara teaches or suggests “the diffusion sheet and the light reflective sheet cooperate to fasten the light conductive plate within the frame” as recited in claim 1, limitation [1e].

g) Dependent Claim 11

Claim 11 depends from claim 1 and recites “wherein a pressure-sensitive adhesive double-coated tape fastens the diffusion sheet to the first surface of the frame.” Ex. 1001, 6:49–51. For this limitation, Petitioner asserts that, in the modified Noguchi design (shown above), “diffusion sheet 2 is attached with double-sided adhesive tape 5 to the first surface of the frame (frame collar 6a) and the reflection sheet 4 is attached similarly to the second surface of the frame (frame collar 6b).” Pet. 46.

Petitioner explains that “[u]sing double-sided adhesive tape to attach components in optical systems was well known to a POSITA.” Pet. 47, citing Ex. 1003 ¶¶ 110–116. Petitioner further points out that Noguchi acknowledges the use of double-adhesive tape is conventionally known in optical systems to affix diffusion and reflecting sheets. *Id.* (citing Ex. 1005, 1:19–25, 5:12–16).

Based on Petitioner’s argument and evidence, we are persuaded that Petitioner has shown sufficiently for purposes of this Decision that Noguchi discloses the “pressure-sensitive adhesive double-coated tape” of limitation [11a] arranged as recited in claim 11.

3. *Summary*

In view of the foregoing, we determine that Petitioner has demonstrated a reasonable likelihood of showing that Noguchi in combination with Kurihara teaches or suggests all limitations of claims 1 and 11 and that these claims would have been obvious over the combination because we find a person of ordinary skill in the art would have been motivated to combine Noguchi's optical unit configuration, using a bolt for assembly, with Kurihara's teaching of optical unit assembly without the use of bolts in order to reduce the thickness of the optical unit.

Additionally, claims 2–8 and 12 depend from claim 1. Having reviewed Petitioner's arguments asserting that claims 2–8 and 12 are obvious over Noguchi and Kurihara (*see* Pet. 40–48), we also determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertions as to these dependent claims.

F. Ground 3: Obviousness over Noguchi and Oda

Petitioner contends that the subject matter of claims 9 and 10 would have been obvious over Noguchi (Ex. 1005) in combination with Oda (Ex. 1007). Pet. 48–50.

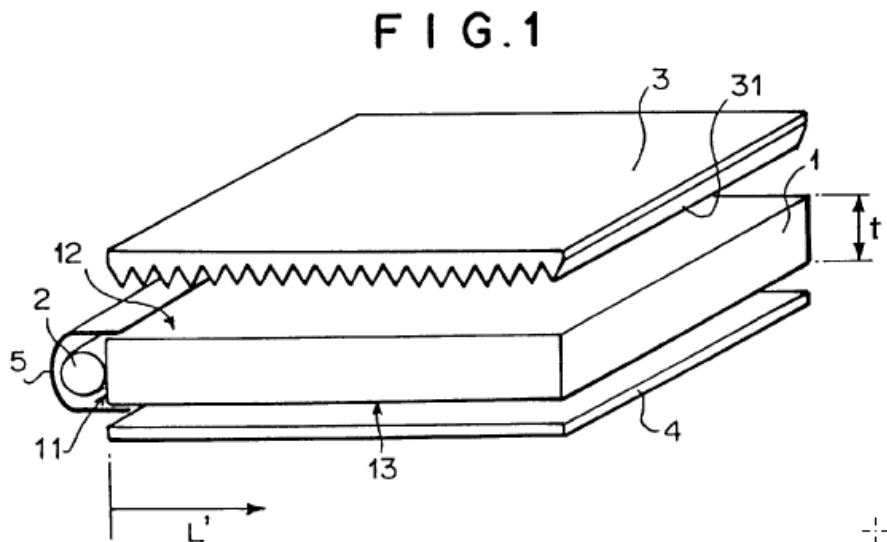
We have considered Petitioner's arguments and the evidence presented at this stage, and we address them in the context of representative claim 9. For the reasons explained below, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that the subject matter of claim 9 would have been obvious over the combination of Noguchi and Oda.

Noguchi is described above. *See supra* Part III.E.1.

1. *Oda (Ex. 1007)*

Oda describes “a surface light source device for a display apparatus such as a liquid crystal display device for use in a portable personal computer, a liquid crystal television or the like.” Ex. 1007, 1:7–11. More particularly, Oda describes “a surface light source element for emitting light which has high brightness and a uniform brightness distribution on a light emitting plane without performing any uniformity enhancing processing such as treatment with a spot pattern or the like.” *Id.* at 1:16–21.

Figure 1 of Oda is provided below for an aid in understanding Petitioner’s challenge.



Oda Fig. 1

“Fig 1 shows an edge-lit BLU with sheet 3 on top of the light guide. Oda describes element 3 as ‘a light angle varying sheet 3 comprising a lens sheet [] such as prism sheet mounted on the light emitting face 12 of the light conductor 1.’” Ex. 1003 ¶ 213, citing Ex. 1007 at 5:44–46.

As described in Oda, Figure 1 illustrates an embodiment of a surface light source device that includes light conductor 1 having a thickness “t”,

light emitting face 12 and back surface 13, and which includes at least one light incident face 11 confronting elongated light source 2 whereby light emitting face 12 is substantially perpendicular to light incident face 11. Light angle varying sheet 3, such as a prism sheet, is mounted on light emitting face 12 of light conductor 1. Lens arrays 31 are disposed parallel to light source 1. We note reference number 4 is undefined in Oda. *See* Ex. 5:37–53, 6:65–67, 14:4–12.

2. *Analysis*

We discuss dependent claim 9 in detail. Claim 9 depends from claim 1, and recites “wherein a lens sheet is squeezed between the diffusion sheet and the first surface of the light conductive plate.” Ex. 1001, 6:43–45. For this limitation, Petitioner asserts that “Noguchi in view of Oda renders this limitation obvious,” because “[i]ncluding lens sheets in optical units has been well known for a very long time.” Pet. 48 (citing Ex. 1003 ¶¶ 210–218). Petitioner further points out that the ’070 Patent acknowledges the use of a lens sheet in combination with a diffusion sheet was known in the art. *Id.* (citing Ex. 1001, 1:43–47).

We note from our review that Oda’s lens sheet does not appear to be “squeezed between the diffusion sheet and the first surface of the light conductive plate,” as claimed.

However, Petitioner further asserts “[a] POSITA at the time would have known that one or more diffusion sheets and one or more lens sheets could be used in various orientations and combinations. This understanding would include a lens sheet located between the light guide and a diffusion sheet.” Ex. 1003 ¶ 216. As a result, Petitioner contends “the combination of Noguchi and Oda teaches the optical unit as claimed in claim 1, wherein a

lens sheet is squeezed between the diffusion sheet and the first surface of the light conductive plate.” *Id.* ¶ 217.

With respect to the motivation of a person with skill in the art to combine Noguchi with Oda, Petitioner asserts “[a] POSITA would be motivated . . . to modify the Noguchi design to include a lens sheet on either side of the diffusion sheet” to “aid[] in providing a high uniformity of brightness in a liquid crystal display.” Pet. 48.

We find that Petitioner has provided, sufficient for institution purposes, “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” as required under our case law. *See Kahn*, 441 F.3d at 988 (cited with approval in *KSR*, 550 U.S. at 418).

3. *Summary*

Based on this record, and lacking any Patent Owner rebuttal, we are persuaded that Petitioner has shown a reasonable likelihood that it would prevail in establishing that the subject matter of claim 9 would have been obvious over Noguchi and Oda.

Additionally, claim 10 depends from claim 9. Having reviewed Petitioner’s arguments asserting that claim 10 would have been obvious over Noguchi and Oda (*see* Pet. 49–50), we also determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertions as to this dependent claim.

IV. CONCLUSION

As discussed above, Petitioner has demonstrated a reasonable likelihood that it will prevail on its asserted ground of anticipation by Noguchi, its asserted ground of obviousness over Noguchi in combination

with Kurihara, as well as its asserted ground of obviousness over Noguchi in combination with Oda. *See supra* Parts III.E, III.F, III.G. Accordingly, we institute trial on all challenged claims and all asserted grounds of unpatentability. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) (holding that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition); Patent Trial and Appeal Board, Consolidated Trial Practice Guide, 5 (Nov. 2019), available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf> (“In instituting a trial, the Board will either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution. The Board will not institute on fewer than all claims or all challenges in a petition.”).

As explained above, we determine that Petitioner has established a reasonable likelihood of prevailing in its challenge to at least one claim of the '070 patent. Thus, we institute an *inter partes* review of all challenged claims on all asserted grounds presented in the Petition.

Our factual findings, conclusions of law, and determinations at this stage of the proceeding are preliminary, and based on the evidentiary record developed thus far. Our final decision as to the patentability of challenged claims will be based on the record developed during trial, including any response timely filed by Patent Owner. Any arguments not raised by Patent Owner in a timely-filed response may be deemed waived.

V. ORDER

For the reasons given, it is:

ORDERED that *inter partes* review is instituted on all challenged claims 1–12 of the '070 patent, on all corresponding grounds of unpatentability as specified in the Petition:

- A. Anticipation under 35 U.S.C. § 102 of claims 1, 2, 4–8, and 12 by Noguchi;
- B. Obviousness under 35 U.S.C. § 103 of claims 1–8, 11, and 12 over the combination of Noguchi and Kurihara; and
- C. Obviousness under 35 U.S.C. § 103 of claims 9, 10 over the combination of Noguchi and Oda; and it is

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '070 patent shall commence on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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Patent 7,593,070 B2

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