

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIANMA MICROELECTRONICS CO. LTD.,
Petitioner,

v.

JAPAN DISPLAY INC.,
Patent Owner.

IPR2021-01029
Patent 9,310,654 B2

Before JO-ANNE M. KOKOSKI, KRISTINA M. KALAN, and
ELIZABETH M. ROESEL, *Administrative Patent Judges*.

KOKOSKI, *Administrative Patent Judge*.

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

I. INTRODUCTION

Tianma Microelectronics Co. Ltd. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–7 and 12–14 (the “challenged claims”) of U.S. Patent No. 9,310,654 B2 (“the ’654 patent,” Ex. 1001). Paper 2 (“Pet.”). Japan Display Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). With Board authorization, Petitioner filed a Reply to the Preliminary Response (“Reply,” Paper 7), and Patent Owner filed a Sur-reply to Petitioner’s Reply (“Sur-reply,” Paper 9).

Institution of an *inter partes* review is authorized by statute when “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 1 of the claims challenged in the petition.” 35 U.S.C. § 314 (2018); *see also* 37 C.F.R. § 42.4 (2021). Upon consideration of the Petition, the Preliminary Response, the Reply, the Sur-reply, and the evidence of record, we determine that Petitioner has established a reasonable likelihood of prevailing with respect to the unpatentability of at least one claim of the ’654 patent, and we decline to exercise our discretion to deny institution. Accordingly, for the reasons that follow, we institute an *inter partes* review of claims 1–7 and 12–14 of the ’654 patent.

A. *Real Parties-in-Interest*

Each party identifies itself as the real party-in-interest. Pet. 64; Paper 4, 3.

B. *Related Proceedings*

The parties indicate that, pursuant to the district court’s order (Ex. 1016), the ’654 patent is no longer at issue in *Japan Display Inc. v. Tianma Microelectronics Co. Ltd.*, No. 2:20-cv-00284 (E.D. Tex.) (the “District Court Action”). Paper 11, 1; Paper 13, 3; Ex. 1017.

C. The '654 Patent

The '654 patent, titled “Liquid Crystal Device and Electronic Apparatus,” is directed to “a liquid crystal device having a high pixel aperture ratio, a high display luminance and a wide viewing angle and an electronic apparatus using the liquid crystal device.” Ex. 1001, 2:48–51. The liquid crystal device includes: (1) a first substrate and a second substrate with a liquid crystal layer sandwiched in between; (2) a first electrode on the liquid crystal layer side of the first substrate; (3) an insulating layer on the liquid crystal layer side of the first electrode; and (4) a second electrode on the liquid crystal layer side of the insulating layer. *Id.* at 2:53–60. The first substrate has a plurality of intersecting data lines and scan lines formed thereon, with sub-pixels formed at regions surrounded by data lines and scan lines. *Id.* at 2:61–64. The second electrode has a plurality of linear electrodes disposed with a gap in between, each linear electrode extending in a long-axis direction of the sub-pixels, and has at least one bent portion. *Id.* at 2:64–67. The bent portion is shaped such “that both sides thereof are inclined in opposite directions with respect to the long-axis direction of the sub-pixels; and the data lines or scan lines are bent in an extending direction of the linear electrodes having the bent portion.” *Id.* at 2:67–3:5.

The '654 patent explains that, because each of the linear electrodes constituting the second electrode is generally arranged to extend in the long-axis direction of the sub-pixels and includes at least one bent portion, and the bent portion has such a shape that both sides thereof are inclined in opposite directions with respect to the long-axis direction of the sub-pixels, a multi-domain structure is formed, and thus, it is possible to achieve a wide viewing angle. Moreover, since the data line is bent in the extending direction of the linear electrodes having the bent portion, it is possible to suppress dead spaces which do not contribute to display from generating

along the longer sides of the sub-pixel, and thus, a high aperture ratio can be maintained.

Id. at 3:10–23. The '654 patent also teaches that the first electrode may be a pixel electrode and the second electrode may be a common electrode, and because the insulating layer is formed on the pixel electrode and the common electrode is formed on the surface of the insulating layer so as to cover the entire sub-pixels, “it is possible to maximize the aperture ratio of the sub-pixels.” *Id.* at 3:24–32.

D. Illustrative Claim

Petitioner challenges claims 1–7 and 12–14 of the '654 patent. Pet. 19. Claims 1 and 14 are independent. Claim 1 is illustrative of the claimed subject matter, and is reproduced below.

1. A liquid crystal device, comprising:
 - [1.1] a first substrate and a second substrate that are disposed to face each other, the first substrate including a plurality of data lines and a plurality of scan lines which intersect each other;
 - [1.2] a liquid crystal layer that is sandwiched between the first substrate and the second substrate;
 - [1.3] a first electrode that is provided on a liquid crystal layer side of the first substrate;
 - [1.4] an insulating layer that is provided on the liquid crystal layer side of the first electrode;
 - [1.5] a second electrode that is provided on the liquid crystal layer side of the insulating layer; and
 - [1.6] a light shielding film configured to overlap with at least one of the scan lines which is at least bent in plan view, the light shielding film being provided on the second substrate

wherein:

- [1.7] sub-pixels are formed at regions surrounded by the data lines and the scan lines;
- [1.8] the second electrode has a plurality of linear electrodes that are disposed with gaps therebetween;
- [1.9] each of the plurality of linear electrodes extends in a long-axis direction of the sub-pixels, and at least one of the linear electrodes or at least one of the gaps has at least one bent portion, the bent portion provided in a central portion of the respective sub-pixels;
- [1.10] the bent portion has such a shape that both sides thereof are inclined in opposite directions with respect to the long-axis direction of the sub-pixels; and
- [1.11] the data lines or the scan lines are bent in an extending direction of the linear electrodes having the bent portion,
- [1.12] wherein the first and second electrodes are a combination of either
 - [1.12.a] a pixel electrode as the second electrode including the linear electrodes and gaps, and that is provided over a common electrode as the first electrode, or
 - [1.12.b] a common electrode as the second electrode including the linear electrodes and gaps, and that is provided over a pixel electrode as the first electrode, and
- [1.13] wherein the light shielding film is configured to overlap with the second electrode which is bent in plan view.

Ex. 1001, 15:36–16:10 (bracketed material added).

E. Asserted Ground

Petitioner asserts that claims 1–7 and 12–14 of the '654 patent are unpatentable under post-AIA¹ 35 U.S.C. § 102 as anticipated by Atarashiya.² Pet. 14, 19. Atarashiya is the publication of the parent application to which the '654 patent claims the benefit as a continuation. Pet. 2; Ex. 1001, code (63); Ex. 1004, code (21). As further discussed below, Petitioner contends that the challenged claims are anticipated by Atarashiya, but not supported by its written description, because Atarashiya discloses only one of two alternatives recited in the claims. Pet. 1–3. Petitioner relies on the Declaration of E. Fred Schubert, Ph.D. (“Schubert Declaration,” Ex. 1002) in support of its contentions. Patent Owner submits the Declaration of Thomas L. Credelle (“Credelle Declaration,” Ex. 2003) in support of its Preliminary Response.

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner contends that a person having ordinary skill in the art would have had “at least a four-year undergraduate degree in electrical engineering or physics or a closely related field and four years of experience in the design and implementation of flat panel display devices or components thereof.” Pet.18 (citing Ex. 1002 ¶ 59). Patent Owner’s declarant, Mr. Credelle, testifies that a person having ordinary skill in the art “would have had the equivalent of an undergraduate degree in electrical engineering,

¹ Petitioner relies on the version of 35 U.S.C. § 102 that applies as of the March 16, 2013, effective date of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011).

² US Patent App. Pub. No. 2009/0225267 A1, published Sep. 10, 2009 (Ex. 1004).

materials science, physics, or a related field and at least two years of work experience (or a graduate degree) in LCD display technology.” Ex. 2010 ¶ 32. Mr. Credelle also states that, although he disagrees with Petitioner’s proposed level of ordinary skill in the art, his opinions “apply equally under either proposed level.” *Id.* ¶ 34.

We agree with the parties that a person of ordinary skill in the art would have had the equivalent of a four-year undergraduate degree in electrical engineering or a similar field, and experience in the field of flat panel displays or liquid crystal display technology, which appears to be consistent with the level of skill in the art at the time of the invention as reflected in the prior art in this proceeding. Our determination regarding Petitioner’s challenge does not turn on the differences between Petitioner’s and Patent Owner’s definitions, and we note that our conclusion would be the same under either definition.

B. Claim Construction

We construe each claim “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). Under this standard, claim terms are generally given their plain and ordinary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). Only those terms in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Neither party proposes an explicit construction for any claim term. *See* Pet. 18; *see generally* Prelim. Resp. For purposes of this Decision, based on the record before us, we determine that no claim term requires an explicit construction.

C. Earliest Effective Filing Date of the '654 Patent

The '654 patent issued from U.S. Patent Application No. 14/549,189 (“the '189 application”), which was filed on November 20, 2014 as a continuation of Application No. 12/397,408 (“the Parent Application”), which was filed on March 4, 2009. Ex. 1001, codes (63), (65). The Parent Application was published as *Atarashiya* on September 10, 2009. Ex. 1004, codes (21), (43); *see also* Pet. 14 (“*Atarashiya* is the publication of, and thus contains the same disclosures as, the Parent Application.”). Petitioner contends that the challenged claims are not entitled to the priority date of the Parent Application “because the subject matter of the challenged claims was not disclosed in the manner required by 35 U.S.C. § 112 in the Patent Application.” *Id.* at 8. Therefore, Petitioner contends, “the challenged claims are not entitled to a filing date earlier than the November 20, 2014 filing date of” the '189 application.” *Id.*

“It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008) (citations omitted); *see also Research Corps. Techs. v. Microsoft Corp.*, 627 F.3d 859, 871–72 (Fed. Cir. 2010) (holding the later-filed application, with claims that were not limited to a “blue noise mask,” was not entitled to the priority filing date of the parent application, which was “limited to a blue noise mask”); *ICU*

Med., Inc. v. Alaris Med. Sys., 558 F.3d 1368, 1377–78 (Fed. Cir. 2009) (holding that “spikeless” claims “added years later during prosecution” were not supported by the specification which “describe[d] only medical valves with spikes”); *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158–60 (Fed. Cir. 1998) (holding the generic shaped cup claims of the later-filed child application were not entitled to the filing date of the parent application that “disclosed only a trapezoidal cup and nothing more”). “To satisfy the written description requirement the disclosure of the prior application must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was in possession of the invention.” *PowerOasis*, 522 F.3d at 1306 (citations omitted). The sufficiency of written description support is based on “an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

“In an *inter partes* review, the burden of persuasion is on the petitioner to prove ‘unpatentability by a preponderance of the evidence,’ . . . and that burden never shifts to the patentee.” *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (quoting 35 U.S.C. § 316(e)). The burden of production can shift to the patent owner, however. *See id.* at 1379. This shift happens where it is “warranted because the patentee affirmatively seeks to establish a proposition not relied on by the patent challenger and not a necessary predicate for the unpatentability claim asserted—effectively an affirmative defense.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016).

Here, Petitioner asserts that (1) Atarashiya discloses each limitation of claims 1–7 and 12–14, and (2) Atarashiya qualifies as prior art because the

Parent Application does not provide written description support for those same claims. Petitioner ultimately has the burden of persuasion, based on all of the evidence, on both of these assertions. *See Dynamic Drinkware*, 800 F.3d at 1378. At this stage of the proceeding, we assess whether Petitioner has presented evidence and argument sufficient to show that it is reasonably likely to prevail on its contentions.

Petitioner's contentions regarding lack of written description are focused on limitations [1.12] and [1.13] of independent claim 1, which recite a liquid crystal device:

[1.12] wherein the first and second electrodes are a combination of either

[1.12.a] a pixel electrode as the second electrode including the linear electrodes and gaps, and that is provided over a common electrode as the first electrode, or

[1.12.b] a common electrode as the second electrode including the linear electrodes and gaps, and that is provided over a pixel electrode as the first electrode, and

[1.13] wherein the light shielding film is configured to overlap with the second electrode which is bent in plan view.

Ex. 1001, 16:1–10 (bracketed material added). Independent claim 14 includes similar limitations. *Id.* at 18:8–16. Petitioner asserts that “when these recitations are read together, the claims recite two alternatives with respect to the” first and second electrodes (Alternatives A and B). Pet. 2. More particularly, Petitioner defines these two alternatives as:

[Alternative A] *a pixel electrode . . . including the linear electrodes and gaps . . . provided over a common electrode . . . , wherein the light shielding film is configured to overlap with the pixel electrode which is bent in plan view.*

[Alternative B] *a common electrode . . . including the linear electrodes and gaps . . . provided over a pixel electrode . . . , wherein the light shielding film is configured to overlap with the common electrode which is bent in plan view.*

Id. Petitioner contends that, “[t]o benefit from an earlier priority date, the priority document must disclose both alternatives,” and the Parent Application does not provide support for a liquid crystal device where the second electrode is a pixel electrode and the first electrode is a common electrode (“Alternative A”) that also includes the “light shielding film being provided on the second substrate” additionally recited by the independent claims. Pet. 1, 10–12.

Petitioner acknowledges that the Parent Application discloses, in Embodiments 1–3, a pixel electrode including linear electrodes and gaps provided over a common electrode, but contends that Embodiments 1–3 “do not discuss any ‘light shielding film,’ let alone a ‘light shielding film . . . configured to overlap with the pixel electrode which is bent in plan view,’ as required by Alternative A.” Pet. 10–11 (citing Ex. 1006 ¶¶ 37–60).

Therefore, Petitioner contends, “Embodiments 1–3 do not disclose Alternative A.” *Id.* at 11 (citing Ex. 1002 ¶ 44). Petitioner contends that “Embodiment 4 discloses an arrangement of pixel and common electrode opposite of Alternative A, such that a common electrode with linear electrodes and gaps (‘slits’) is provided over the pixel electrode, as required by Alternative B.” *Id.* (citing Ex. 1006 ¶ 62). Petitioner further contends that the Parent Application “specifically discloses that, in Embodiment 4, ‘the common electrode 67 overlaps with the black matrix 73 as viewed in plan view.’” *Id.* (citing Ex. 1006 ¶ 72). Because black matrix 73 is a light shielding film that overlaps with the common electrode, Petitioner contends that the Parent Application discloses Alternative B. *Id.*; Ex. 1002 ¶ 45.

Petitioner asserts that the fifth embodiment described by the Parent Application, which Petitioner calls “Embodiment M,” “discloses the same pixel electrode and common electrode disposition as Embodiment 4.” Pet. 12 (citing Ex. 1006 ¶ 75). Petitioner contends that, because “Embodiment M does not meet the requirement of ‘light shielding film being provided on the second substrate’” that is required by the challenged claims, “it does not correspond to either Alternative A or Alternative B of the ’654 patent claims.” *Id.* (citing Ex. 1002 ¶ 45). Accordingly, Petitioner contends, “the Parent Application discloses Alternative B (in Embodiment 4), but not Alternative A.” *Id.* (citing Ex. 1002 ¶¶ 47, 56).

Patent Owner responds that “the narrow issue before the Board is whether the disclosure of the Parent Application reasonably conveys to those skilled in the art that the inventor had possession of a liquid crystal device with a light shielding film configured to overlap with the pixel electrode which is bent in plan view.” Prelim. Resp. 18. Patent Owner argues that “the Parent Application’s original claims disclose a ‘light shielding film’ used in conjunction with a pixel electrode in the second electrode configuration.” *Id.* at 22. In that regard, Patent Owner argues that, “like claim 1 of the ’654 patent, original claim 1 of the Parent Application discloses a ‘second electrode’ that is provided over the ‘first electrode’ (with an insulating layer in between),” and “the Parent Application also discloses that the ‘first electrode’ and ‘second electrode’ terms can be either a ‘pixel electrode’ and ‘common electrode,’ respectively, or vice versa.” *Id.* at 19 (citing Ex. 1004 ¶¶ 41, 50, 64, claim 1; Ex. 1006, 46–53).

Patent Owner then points to original claim 10, which recites: “The liquid crystal device according to Claim 1, further comprising a light shielding film configured to overlap with the data line (or the scan line)

which is at least bent in plan view, the light shielding film being provided on the second substrate.” *Id.* (quoting Ex. 1006, 56). Patent Owner argues that, “[t]aken together, original claims 1 and 10 show that the Parent Application discloses a ‘light shielding film’ formed on the second substrate (as illustrated in Fig. 7) used in conjunction with a ‘pixel electrode’ in the ‘second electrode’ configuration (as disclosed in Embodiments 1–3).” *Id.* at 20 (citing Ex. 2003 ¶¶ 43–44). According to Patent Owner, “while the portions of the Parent Application’s specification describing Embodiments 1–3 may not specifically discuss a ‘light shielding film,’ the original claims of the Parent Application do, in fact, disclose a ‘light shielding film’ used with the electrode configuration disclosed in the those embodiments.” *Id.* (citing Ex. 2003 ¶ 48).

Patent Owner also argues that “[t]he Parent Application’s specification also discloses how the light shielding film can be formed on either the first or second substrates (without regard to whether the pixel electrode or common electrode is on top) and the benefits related to doing so.” Prelim. Resp. 22–23 (citing Ex. 1006 ¶¶ 23–25). Patent Owner argues that the Parent Application also details how the light shielding film (also called a “black matrix”) is formed on the counter substrate, and “discloses the relationship between the ‘common electrode 67 and the black matrix 73,’ including how the ‘black matrix’ overlaps with the ‘common electrode,’ but not the ‘slits’ of the common electrode,’ and the rationale for doing so.” *Id.* at 23 (citing Ex. 1006 ¶¶ 69, 74–75). Patent Owner further argues that the Parent Application “discloses in detail how to form the ‘black matrix’ on the ‘element substrate 68’ (i.e., the ‘first substrate’) and the advantages related to that configuration.” *Id.* (citing Ex. 1006 ¶¶ 78, 81–82). Patent Owner argues that, “[t]aken together, these disclosures demonstrate how, where,

and for what purposes the ‘light shielding layer’ is formed and reasonably convey an understanding of the claimed invention to a person of skill in the art.” *Id.* (citing Ex. 2003 ¶ 45).

Upon review of the disclosures in the Parent Application, and based on the current record, we find that Petitioner has sufficiently met its burden to show, for purposes of institution, that the Parent Application does not reasonably convey to a person of ordinary skill in the art that the inventor was in possession of a liquid crystal device that has both (1) a pixel electrode as the second electrode and a common electrode as the first electrode, and (2) a light shielding film configured to overlap with the second electrode (i.e., the pixel electrode) which is bent in plan view, as required by independent claims 1 and 14.

Our reading of the Parent Application leads us to find, preliminarily, that its description of the use of a light shielding film in a liquid crystal device is limited to the configuration in which the pixel electrode is the first electrode and the common electrode is the second electrode. Ex. 1004³ ¶¶ 12, 23–25, 63–64, 69, 74, 77–78. For example, the Summary section of the Parent Application describes a liquid crystal display device where “the first electrode may be a pixel electrode and the second electrode may be a common electrode.” Ex. 1004 ¶¶ 11–12. It goes on to state that “[t]he liquid crystal device according to the above aspect may further include a light shielding film configured to overlap with the data line (or the scan line) which is at least bent in plan view, the light shielding film being provided on

³ Atarashiya (Ex. 1004) is the published version of the Parent Application (Ex. 1006), therefore, the disclosures are the same. Because Patent Owner cites to Atarashiya when discussing whether the challenged claims have written description support, we do as well.

the first substrate.” *Id.* ¶ 23. The Summary, however, does not state that the first electrode may be a common electrode and the second electrode may be pixel electrode. *See id.* ¶¶ 9–26.

The Parent Application does not mention a light shielding film again until it describes Embodiment 4, which describes a liquid crystal device where the pixel electrode is the first electrode and the common electrode is the second electrode. Ex. 1004 ¶¶ 64, 69. The Parent Application describes the relationship between “the common electrode 67 and the black matrix 73,” and states that “the common electrode 67 overlaps with the black matrix 73 as viewed in plan view.” *Id.* ¶ 74. Embodiment M similarly describes a liquid crystal display with a light shielding film where the pixel electrode is the first electrode and the common electrode is the second electrode. *Id.* ¶ 77–78. Embodiments 1–3, in contrast, disclose liquid crystal devices where the pixel electrode is the second electrode and the common electrode is the first electrode, but the Parent Application does not explicitly state that a light shielding film is part of the configuration of Embodiments 1–3. Ex. 1004 ¶¶ 39–62.

The Parent Application, therefore, discloses liquid crystal display devices that include (1) a pixel electrode as the second electrode and the common electrode as the first electrode (Ex. 1004 ¶¶ 39–62), and (2) a common electrode as the second electrode and the pixel electrode as the first electrode (*id.* ¶¶ 63–75). That the Parent Application describes using a light shielding film when the pixel electrode is the first electrode, but does not describe a light shielding film when the pixel electrode is the second electrode, indicates that the inventors were not in possession of a liquid crystal device where the common electrode is the first electrode, the pixel electrode is the second electrode, and a light shielding film is configured to

overlap with the second (pixel) electrode which is bent in plan view as required by claims 1 and 14.

Patent Owner argues that “a person of ordinary skill in the art would have no difficulty discerning a limitation regarding the ‘overlap’ of the light shielding film for an electrode configuration with the pixel electrode on top, when the same ‘overlap’ is explained with regard to an electrode configuration with the counter electrode on top.” Prelim. Resp. 21. Similarly, Mr. Credelle testifies that the Parent Application’s disclosure of “a light shielding film overlapping the common electrode (configured as the upper electrode) is sufficient to reasonably convey to a [person of ordinary skill in the art] that the inventor had possession of the invention when the pixel electrode is used as the upper electrode.” Ex. 2003 ¶ 46. However, neither Patent Owner nor Mr. Credelle adequately explain, on this record, why disclosure of a light shielding film in one configuration is sufficient to show possession of a light shielding film in the other configuration, particularly in light of the fact that the Parent Application discloses embodiments of both configurations. Moreover, Patent Owner appears to be arguing that a person of ordinary skill in the art would have found it obvious to configure a liquid crystal device with a pixel electrode as the second electrode and a light shielding film configured to overlap with the pixel electrode, based on the disclosure of a liquid crystal device with a common electrode as the second electrode and a light shielding film configured to overlap with the common electrode. Although the written description requirement does not require “that the specification recite the claimed invention *in haec verba*, a description that merely renders the invention obvious does not satisfy the requirement.” *Ariad Pharms., Inc. v. Eli Lilly*

and Co., 598 F.3d 1336, 1352 (Fed. Cir. 2010) (citing *Lockwood v. Am. Airlines*, 107 F.3d 1565, 1571–1572 (Fed. Cir. 1997)).

We have also considered Patent Owner’s argument that original claims 1 and 10 as filed with the Parent Application “disclose a ‘light shielding film’ used in conjunction with a pixel electrode in the second electrode configuration.” Prelim. Resp. 22. Original claim 1 recites a first electrode and a second electrode, but does not include limitations directed to the alternative configurations of the pixel electrode and the common electrode that appear in limitations [1.12] and [1.13] of the ’654 patent. Ex. 1004, 43–45. Original claim 10 depends from original claim 1 and further recites a light shielding film configured to overlap with the data line (or the scan line) provided on the second substrate, but, like claim 1, does not identify the configuration of the pixel electrode and common electrode. *Id.* at 46. “While it is true that original claims are part of the original specification, *In re Gardner*, 480 F.2d 879, 879 (CCPA 1974), that truism fails to address the question whether the original claim language necessarily discloses the subject matter that it claims.” *Ariad*, 598 F.3d at 1349. The written description requirement, therefore, applies to all claims, and requires that the specification demonstrate that the inventors were in possession of the claimed subject matter. *Id.* Original claims 1 and 10 do not include limitations directed to the configuration of the pixel electrode, the common electrode, and the light shielding film, and, as discussed above, the specification of the Parent Application only describes a light shielding film configured to overlap with the second electrode when the common electrode is the second electrode. As a result, we cannot say, on this record, that original claims 1 and 10 show that the inventors recognized and were claiming a liquid crystal device where the pixel electrode is the second

electrode, the common electrode is the first electrode, and the light shielding film is configured to overlap with the second (pixel) electrode as recited in one of the alternatives of claims 1 and 14 of the '654 patent. *See Mentor Graphics Corp. Eve-USA, Inc.*, 851 F.3d 1275, 1296–1297 (Fed. Cir. 2017).

On the present record, we are persuaded that Petitioner has made a sufficient threshold showing that limitations [1.12] and [1.13] in independent claim 1 (and the similar limitations in independent claim 14) lack written description support in the Parent Application. Accordingly, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that the challenged claims in the '654 patent are not entitled to the benefit of the March 4, 2009 filing date of the Parent Application. This determination is preliminary in nature and based on the record at this stage of the proceeding. We invite the parties to develop these arguments further at trial, to the extent permitted under our rules.

D. Anticipation by Atarashiya

Petitioner contends that claims 1–7 and 12–14 are unpatentable under 35 U.S.C. § 102 as anticipated by Atarashiya. Pet. 14, 26–64. Atarashiya published on September 10, 2009. Ex. 1004, code (43). As set forth above, we determine that Petitioner establishes a reasonable likelihood of prevailing in showing that the '654 patent is not entitled to the March 4, 2009 filing date of the Parent Application. Accordingly, on the present record, there appears to be a reasonable likelihood that Atarashiya qualifies as prior art because it was published more than one year before the November 20, 2014 filing date of the '654 patent. *See* Ex. 1001, code (22).

Aside from the claims, the content of Atarashiya is substantially the same as the content of the '654 patent. Pet. 26; *see also* Ex. 1005 (redline comparison between the specifications of Atarashiya and the '654 patent).

Petitioner asserts that Atarashiya discloses all of the elements of independent claim 1 because it discloses a liquid crystal device comprising all of the elements of independent claims 1 and 14 when the common electrode is the second electrode and the pixel electrode is the first electrode (i.e., Alternative B). Petitioner argues, as set forth above, that Atarashiya does not disclose Alternative A of independent claims 1 and 14, and that Atarashiya's disclosure of Alternative B is sufficient to anticipate the challenged claims because "[a] prior art reference discloses a claim if it discloses one of the alternative limitations recited by the claim." *Id.* at 26 (citing *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001)); *see also id.* at 27–45 (discussing claim 1), 56–64 (discussing claim 14).

At this stage of the proceeding, Patent Owner does not dispute that, if Atarashiya qualifies as prior art to the '654 patent, then it anticipates the challenged claims. *See generally* Prelim. Resp. Having reviewed all of Petitioner's assertions regarding independent claims 1 and 14, as well as the supporting evidence, we determine on this record that Petitioner has shown a reasonable likelihood of establishing that claims 1 and 14 are anticipated by Atarashiya. Pet. 27–45, 46–64. We have also reviewed Petitioner's arguments and evidence with respect to claims 2–7, 12, and 13 that depend, directly or indirectly, from claim 1. *Id.* at 45–56. Based on the record before us, we also find Petitioner's arguments and evidence are sufficient to show a reasonable likelihood that Petitioner would prevail in proving the unpatentability of those claims as well.

E. Discretionary Denial Under 35 U.S.C. § 314(a)

Patent Owner argues that we should exercise our discretion to deny institution under 35 U.S.C. § 314(a) because the '654 patent is "asserted in a pending district court litigation between the same parties" that "is scheduled

to be completed nearly ten months before a final written description would be due.” Prelim. Resp. 2; *see Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 11 (PTAB May 13, 2020) (informative) (“[A] parallel proceeding in an advanced state implicates considerations of efficiency and fairness, which can serve as an independent reason to apply discretion to deny institution.”); *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 19–20 (PTAB Sept. 12, 2018) (precedential) (denying institution relying, in part, on § 314(a) because the parallel district court proceeding was scheduled to finish before the Board reached a final decision). Subsequent to the filing of its Preliminary Response, however, Patent Owner narrowed the number of patents and claims asserted in the parallel District Court Action pursuant to a court order (Ex. 1016, 2–3), and elected not to continue asserting any claims in the ’654 patent (Ex. 1017, 1). *See also* Paper 11, 1 (Petitioner’s updated mandatory notice indicating that “Patent Owner has withdrawn the ’654 patent from” the District Court Action); Paper 13, 3 (Patent Owner’s updated mandatory notice indicating that the ’654 patent “is no longer at issue in the” District Court Action). Because the ’654 patent is no longer asserted in the District Court Action, there is not a “parallel proceeding” that could “serve as an independent reason to apply discretion to deny institution,” and, thus, we decline to exercise our discretion under 35 U.S.C. § 314(a) to deny the Petition. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential).

III. CONCLUSION

Based on the arguments in the Petition, Preliminary Response, Reply, and Sur-reply, and the evidence of record, we determine that Petitioner establishes a reasonable likelihood that it will prevail on its challenge to at

least one claim of the '654 patent. Additionally, we decline to exercise our discretion under 35 U.S.C. §§ 314(a) to deny institution. Accordingly, we institute an *inter partes* review of all the challenged claims on the ground presented in the Petition.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that an *inter partes* review is instituted with respect to the ground asserted in the Petition; and

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

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