

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MAXLITE, INC.,
Petitioner,

v.

JIAXING SUPER LIGHTING ELECTRIC APPLIANCE CO., LTD.,
Patent Owner.

IPR2020-00181
Patent 9,723,662 B2

Before BRYAN F. MOORE, JENNIFER S. BISK, and
JULIET MITCHELL DIRBA, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

MaxLite, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1, 2, 5–7, 9, 10, 15–18, 21, 23, 24, 29–32, 34–39, 41, and

42 (the “challenged claims”) of U.S. Patent No. 9,723,662 B2 (Ex. 1001, the “’662 patent”). Paper 1 (“Pet.”). Jiaxing Super Lighting Electric Appliance Co., Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

The standard for institution is set forth in 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary 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(a) (2019) (“The Board institutes the trial on behalf of the Director.”).

For the reasons that follow, we do not institute *inter partes* review of the challenged claims of the ’662 patent.

B. Related Proceedings

The parties identify the following pending district court proceeding involving the ’662 patent: *Jiaxing Super Lighting Electric Appliance Co., Ltd. v. MaxLite, Inc.*, 2:19-cv-04047 (CD Cal.). Pet. 73; Paper 4, 1.

C. Real Parties-in-Interest

Petitioner identifies MaxLite, Inc. as a real party-in-interest. Petitioner identifies CH Lighting Technology Co., Ltd., as a “potential” real party-in-interest. Pet. 73. Patent Owner identifies Jiaxing Super Lighting Electric Appliance Co., Ltd., Obert, Inc., and Zhejiang Super Lighting Electric Appliance Co. Ltd. as the real parties-in-interest. Paper 4, 2.

D. The ’662 Patent

The ’662 patent describes “a power source module for an LED lamp for use in a fluorescent lamp base including a ballast.” Ex. 1001, 2:12–14.

According to the '662 patent, “a starter and a ballast [are used] to drive the traditional fluorescent lamp.” *Id.* at 1:30–31. “The starter is used for heating filaments in the fluorescent lamp and raising a voltage between the two terminals of the fluorescent lamp, so as to ignite the fluorescent lamp to light.” *Id.* at 1:31–34.

According to the '662 patent:

During a pre-heat process executed by the ballast of the fluorescent lamp base, a current flows from one pin to the other pin of the first bi-pin terminal T1 via the first filament-simulating circuit 100, and similarly a current from one pin to the other pin of the second bi-pin terminal T2 via the second filament-simulating circuit 102 respectively.

Ex. 1001, 3:33–41. The filament-simulating unit 10 (which includes filament-simulating circuits 100, 102) is shown in figure 1, reproduced below. Ex. 1001, Fig. 1.

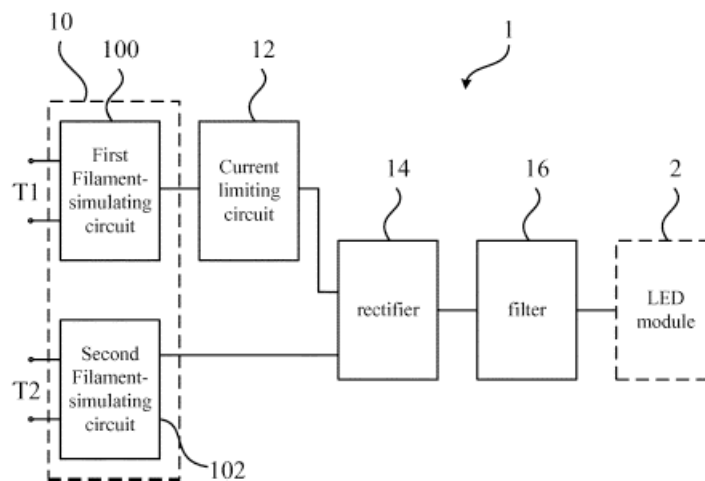


FIG. 1

Figure 1, reproduced above, shows filament-simulating unit 10 along with other components of power source module 1. The '662 patent discloses:

The ballast may execute a pre-heat process to the filaments of the traditional fluorescent lamp for pre-heating the filaments. The filament-simulating unit 10 can simulate a filament of the traditional fluorescent lamp, so as to prevent the ballast from erroneously judging that the filaments are open-circuited or short-circuited during the preheating process of the ballast.

Ex. 1001, 3:55–60. The '662 patent also discloses “a rectifier, a filter, and a discharge circuit. The rectifier [is] electrically connected to the terminals of the LED lamp for receiving a current, the filter is electrically connected between the rectifier and at least one LED of the LED lamp to stor[e] energy for smoothing the current, and the discharging circuit is electrically connected to the filter in parallel for discharging the energy in the filter.” *Id.* at 2:48–55.

The “rectifier” may include two rectifiers, a “first rectifier” and a “second rectifier.” *Id.* at 5:16–20. The rectifier “rectifies the alternating current to be a direct current.” *Id.* at 3:49–51. The “filter” is used to smooth the rectified current. *Id.* at 3:51–54. The '662 patent further discloses “a current limiting circuit” which “is electrically connected to a first terminal of the LED lamp for limiting a [current] from the terminal.” *Id.* at 2:38–40. Specifically, the “current limiting circuit” “protect[s] the LED lamp” by “limiting the current from the first bi-pin terminal T1 to be in a suitable range for driving the LED module 2.” *Id.* at 2:33–35, 3:41–45.

E. Illustrative Claims

The '662 patent has forty-three claims of which six claims are independent. Twenty five claims (1, 2, 5–7, 9, 10, 15–18, 21, 23, 24, 29–32, 34–39, 41, and 42) are challenged in the Petition. *See supra.* Of the

challenged claims, claims 1, 17, 21, 23, 41, and 42 are independent. Claim 1 recites:

1. A power source module for an LED lamp, comprising:
a filament-simulating circuit electrically connected to a first bi-pin terminal and a second bi-pin terminal of the LED lamp,
each of the first bi-pin terminal and the second bi-pin terminal configured to allow a current to flow from one pin to the other pin via the filament-simulating circuit during a pre-heat process executed by a ballast;

a current limiting circuit electrically connected to the filament-simulating circuit and configured to limit a current from the filament-simulating circuit;

a first rectifier electrically connected to the current limiting circuit and configured to rectify the current from the current limiting circuit; and

a filter electrically connected between the first rectifier and at least one LED of the LED lamp and configured to smooth the current from the first rectifier.

Ex. 1001, 6:25–43.

F. References and Other Evidence

The Petition relies on the following references:

1. US 10,045,406, filed Apr. 18, 2014, issued Aug. 7, 2018 (Ex. 1005, “Zhang”), and
2. DE 20 2013 000 880, filed Jan. 29, 2013, issued Apr. 4, 2013 (Ex. 1014, “Osram”).

Pet. 2, 13, 18.

In addition, Petitioner submits the Declaration of Regan Zane, Ph.D. (Ex. 1003, “Zane Decl.”).

G. Asserted Grounds of Unpatentability

Petitioner asserts the challenged claims are unpatentable on the following grounds.

Claims Challenged	35 U.S.C. §	Reference/Basis
1, 2, 5–7, 9, 10, 15–18, 21, 23, 24, 29, 31, 32, 34–39, 41, 42	102	Zhang
21, 23, 24, 30, 36, 37, 39, 41, 42	102	Osram

Pet. 2, 3.

II. PRELIMINARY MATTERS

A. Level of Ordinary Skill

Petitioner contends a person of ordinary skill in the art at the time of the invention would have had a

B.S. degree in electrical engineering, or an equivalent field, as well as at least 2-4 years of academic or industry experience in lighting design, including knowledge of LEDs and related technology for driving LEDs . . . A person of ordinary skill in the art with a higher level of education may have fewer years of academic or industry experience, or vice versa.

Pet. 13 (citing Ex. 1003 ¶ 10). Patent Owner does not contest Petitioner’s articulation of the level of skill in the art. We regard Petitioner’s definition as consistent with the prior art before us. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (prior art itself may reflect an appropriate level of skill). Thus, for the purpose of this Decision, we adopt Petitioner’s proposal.

B. Claim Construction

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) (2019). In this context, claim terms “are

generally given their ordinary and customary meaning” as 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, 1312–13 (Fed. Cir. 2005) (citations omitted) (en banc). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317 (citations omitted).

The parties do not specifically request construction of any claim terms. Patent Owner asserts, however, that “the petition wholly fails to satisfy the claim construction requirement.” Prelim. Resp. 4 (citing 37 C.F.R. § 42.104(b)(3)). For this reason, Patent Owner asserts we should dismiss the Petition for failing to provide a construction of the terms in a challenged claim as required by 37 C.F.R. § 42.104(b)(3). *Id.* at 6 (citing 37 C.F.R. §42.12(a)(1), (b)(8)).

For example, Patent Owner asserts Petitioner fails to construe “limit a current,” yet Petitioner reads that term on frequency blocking. Prelim. Resp. 5. Additionally, Patent Owner asserts Petitioner fails to construe “smooth[ing] the current from the . . . rectifier,” yet Petitioner reads the term on smoothing that occurs after intervening circuit elements between the rectifier and the filter. *Id.* As explained below, we decline to institute based on a failure to show claim limitations other than the two with which Patent

Owner is concerned. Thus, we decline to dismiss the Petition based on an alleged deficiency in claim construction.

We see no need to construe any terms for the purposes of this Decision. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (explaining that only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy).

C. Description of Prior Art References

Petitioner's challenges rely only on Zhang and Osram, each as anticipating references. *See* Pet. 2, 3.

1. Zhang (Exhibit 1005)

Zhang is a patent titled "Solid-State Lighting Apparatus For Use With Fluorescent Ballasts." Ex. 1005, code (54). Zhang discloses "a lighting apparatus including a solid-state lighting circuit [e.g., LEDs] and first and second ballast connection ports configured to be coupled to a ballast." *Id.* at 1:63–65.

2. Osram (Ex. 1014)

Osram is a German patent titled "Circuit arrangement for operating at least one LED and system of a ballast device and a retrofit lamp." Ex. 1014, code (54). Osram discloses an LED "retrofit lamp[] . . . replacement product for existing fluorescent lamps . . . that can be used in the same lamp without requiring changes in the wiring of the lamp [that] shall function for both conventional ballasts . . . and electronic ballasts" *Id.* ¶ 2.

III. ANALYSIS OF THE CHALLENGED CLAIMS

A. Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc., v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987); *see also Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1334 (Fed. Cir. 2008) (to anticipate a patent claim under 35 U.S.C. § 102, “a single prior art reference must expressly or inherently disclose each claim limitation”). Moreover, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *See Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003) (“[T]he dispositive question regarding anticipation [i]s whether one skilled in the art would reasonably understand or infer from the [prior art reference’s] teaching’ that every claim element was disclosed in that single reference.” (quoting *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991))). Additionally, under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates. *MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir.

1999); *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349–50 (Fed. Cir. 2002).

B. Challenge to Claims 1, 2, 5–7, 9, 10, 15–18, 21, 23, 24, 29, 31, 32, 34–39, 41, and 42 Based on Zhang

Petitioner contends claims 1, 2, 5–7, 9, 10, 15–18, 21, 23, 24, 29, 31, 32, 34–39, 41, and 42 are anticipated by Zhang. Pet. 20–54. Petitioner supports this assertion with testimony from its declarant, Dr. Zane. Ex. 1003 ¶¶ 56–126.

1. Claim 1

Petitioner’s element-by-element analysis of independent claim 1 in relation to Zhang appears at pages 20–37 of the Petition. Petitioner supports its analysis with testimony from Dr. Zane. Ex. 1003 ¶¶ 58–93.

Petitioner relies on Zhang to meet the limitation of “each of the first bi-pin terminal and the second bi-pin terminal configured to allow a current to flow from one pin to the other pin via the filament-simulating circuit during a pre-heat process executed by a ballast.” Pet. 24–27. According to Petitioner, a person of ordinary skill in the art at the time of the invention “reading Zhang would have understood that its filament-imitating impedances function for the purpose of providing a path for current to flow between the two pins of each bi-pin terminal during the pre-heat process.” *Id.* at 26 (citing Ex. 1003 ¶ 65).

Petitioner relies on Figures 7 and 10 of Zhang to support its contention as to “pre-heating.” Petitioner asserts “Figures 7 and 10 . . . disclose parallel resistor/capacitor embodiments of the filament-imitating impedance that are equivalent to the filament-imitating impedance of Figure 18.” Pet. 25. Petitioner’s declarant states “in connection with Figures 7 and

10 but applicable to each embodiment including Figure 18—especially since Figures 7 and 10 disclose an embodiment of the filament-imitating impedance with a resistor and capacitor in parallel, equivalent to the embodiment of Figure 18.” Ex. 1003 ¶ 64. Petitioner also asserts “Zhang . . . describes how current flows through a resistive component of one of its filament-imitating impedance embodiments, which a [person of ordinary skill in the art] would understand as describing current flowing during the pre-heat process” with reference to its declarant’s citation of Ex. 1005, 8:8–24, regarding Figure 14. Pet. 27 (citing Ex. 1003 ¶ 68).

Patent Owner argues that the Petition relies on embodiments in Figures 2, 18, and 18A generally but relies on Figures 7, 10, and 14 for the pre-heat limitation. Prelim Resp. 10, 14. Patent Owner also asserts that, although Petitioner says the figures are “equivalent,” Petitioner does not “address the structural differences between the identified filament-imitating impedances of the various figures, such as Figure 7 and 10 containing a single resistor and capacitor whereas Figure 18 contains two resistors and two capacitors, as well as the different arrangement of those components in each figure relative to the ballast connection ports.” *Id.* at 10–11. Patent Owner also asserts Petitioner does not discuss resistor U1, which is in Figure 14 but does not appear in Figure 18. We agree.

For a prior art reference to anticipate a claim, it must disclose all of the limitations of the claim, “arranged or combined in the same way as in the claim.” *Net MoneyIN*, 545 F.3d at 1370. For example, in *Net MoneyIN*, the Federal Circuit held that an “Internet payment system” was not anticipated by a prior art reference that disclosed all the components of the invention, because the reference disclosed two separate payment protocols, each of

which contained only a subset of the components claimed in the patent at issue. *Id.* at 1371. “[T]he [prior art] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.” *Id.* at 1371 (citation omitted).

We determine that Petitioner has not explained sufficiently that Figures 2, 7, 10, 14, 18, and 18A are compatible embodiments such that they teach the limitations of claim 1 arranged in the same way as the ’662 patent without the need to pick and choose disparate disclosures.

Thus, based on the information set forth in the Petition and the testimony of Dr. Zane, we are not persuaded that Petitioner has demonstrated sufficiently a reasonable likelihood of prevailing on this challenge.

2. Claims 2, 5–7, 9, 10, 15, 16, 31, and 32

Claims 2, 5–7, 9, 10, 15, 16, 31, and 32 each depend directly or indirectly from claim 1. Thus, for the same reasons discussed above regarding the pre-heating limitation of claim 1, Petitioner has not shown a reasonable likelihood of success as to these claims.

3. Claims 17, 18, 34, and 35

Independent claim 17 and claims 18, 34, and 35 that depend therefrom each recites “the filament-simulating circuit comprising at least one resistor connected in parallel to at least one capacitor and configured to simulate a filament of a fluorescent lamp *during a preheat process executed by a ballast.*” (emphasis added). Thus, for the same reasons discussed above

regarding the pre-heating limitation of claim 1, Petitioner has not shown a reasonable likelihood of success as to these claims.

4. Claims 21, 23, 24, 29, and 36–39

Independent claims 21 and 23 and claim 36 that depends from claim 21 and claims 24, 29, and 37–39 that depend from claim 23 each recite “during a pre-heat process executed by a ballast.” Petitioner relies on its discussion of claim 1 for these claims. Thus, for the same reasons discussed above regarding the pre-heating limitation of claim 1, Petitioner has not shown a reasonable likelihood of success as to these claims.

5. Claims 41 and 42

Independent claims 41 and 42 each recites “during a pre-heat process executed by a ballast.” Petitioner relies on its discussion of claim 23 for these claims. Thus, for the same reasons discussed above, Petitioner has not shown a reasonable likelihood of success as to these claims.

B. Challenge to Claims 21, 23, 24, 30, 36, 37, 39, 41, and 42 Based on Osram

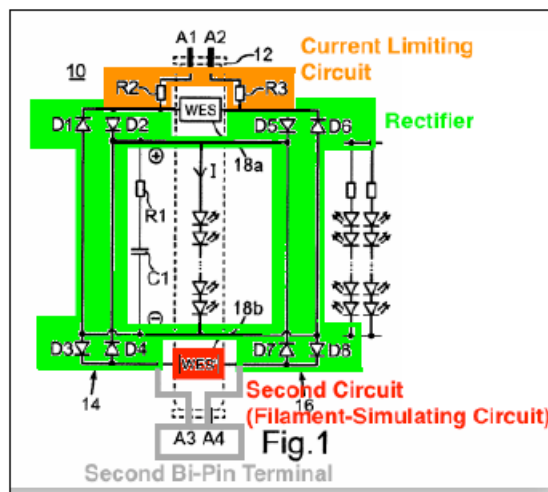
Petitioner contends claims 21, 23, 24, 30, 36, 37, 39, 41, and 42 are anticipated by Osram. Pet. 54–72. Petitioner supports this assertion with testimony from its declarant, Dr. Zane. Ex. 1003 ¶¶ 127–162.

1. Claim 21

Petitioner’s element-by-element analysis of independent claim 21 in relation to Osram appears at pages 54–62 of the Petition. Petitioner supports its analysis with testimony from Dr. Zane. Ex. 1003 ¶¶ 127–40.

Petitioner relies on Osram to meet the limitation of “a rectifier electrically connected between the current limiting circuit and the second circuit and configured to rectify the current from the current limiting circuit and a current from the second bi-pin terminal.” Pet. 59–61. For example,

Petitioner relies on Osram's disclosure of eight diodes D1–D8 in what Osram describes as the “first” and “second” rectifiers. *Id.* at 59 (citing Ex. 1003 ¶ 136). Petitioner further contends that “[t]his rectifier, realized by two full-bridge rectifiers, rectifies the current from both the current limiting circuit R2/R3, and from the second bi-pin terminal with pins A3 and A4 as shown in the annotated figure below.” *Id.* Petitioner's annotated version of Figure 1, reproduced below, shows how Petitioner reads Osram on claim 21. *Id.* at 60.



Petitioner's annotated version of Figure 1 of Osram, reproduced above, shows Petitioner's identification of the following: a rectifier highlighted in green, a current limiting circuit highlighted in orange, a second circuit (filament-simulating circuit) in red, and a second bi-pin terminal highlighted in grey. *Id.*

Petitioner also relies on its declarant's reading of Osram's disclosure to show that “while OSRAM identifies a ‘first rectifier’ 14 and ‘second rectifier’ 16, what is the ‘first’ and ‘second’ rectifier in the language of the

claims of the [']662 patent depends on how one looks at the circuit.” Pet. 60 (citing Ex. 1003 ¶ 136). Petitioner contends

With respect to the manner in which the [']662 patent discusses the rectifier functionality—i.e., in terms of rectifying current from the filament simulating circuits or from the bi-pin terminals—the functionality of the OSRAM rectifier is better understood in terms of which diodes are associated with and rectify that current from the filament simulating circuits or bi-pin terminals. Ex. 1003 ¶ 136. In the embodiment of Figure 1, *the first rectifier is made up of diodes D1, D2, D5, and D6*, whose AC inputs from the current limiting circuit R2/R3 are in parallel with the left- and right-hand-side terminals of the first filament simulating circuit (“WES”, 18a). Ex. 1003 ¶ 137. The *second rectifier is made up of diodes D3, D4, D7, and D8*, whose AC inputs from the second bi-pin terminal A3/A4 are in parallel with the left- and right-hand-side terminals of the second filament simulating circuit (“WES”, 18b).

Pet. 60–61 (citing Ex.1003 ¶ 137) (emphasis added). In other words, Petitioner reads the first and second rectifier on different diodes than Osram does.

Patent Owner responds “OSRAM discloses that ‘by means of eight diodes ... two rectifiers are realized.’” Prelim. Resp. 30 (citing Ex. 1014 ¶ 2). Specifically, Patent Owner asserts correctly that Osram identifies diodes D1 through D4 as the first rectifier and diodes D5 through D8 as the second rectifier. *Id.* (citing Ex. 1014 ¶¶ 2, 24 (identifying “first rectifier 14 and a second rectifier 16”). Patent Owner argues this arrangement does not read on the single rectifier of claim 21. But the Federal Circuit has stated “[t]his court has repeatedly emphasized that an indefinite article ‘a’ or ‘an’ in patent parlance carries the meaning of ‘one or more’ in open-ended claims containing the transitional phrase ‘comprising.’” *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000). Thus, “a rectifier” in

claim 21 can refer to one or more rectifiers such as shown in Figure 1 of Osram.

Although Petitioner contends “[t]he first and second rectifiers together make up the claimed ‘rectifier’” (Pet. at 61), Petitioner appears to rely on its declarant’s description of two rectifiers to meet the claim language of claim 21. *Id.* at 59–61. Petitioner appears to refer back to its declarant’s recasting of Osram for the “the first and second rectifiers.” *Id.* (citing Ex. 1003 ¶¶ 136–37) (identifying the diodes in Osram that make up the “first” and “second” rectifiers).

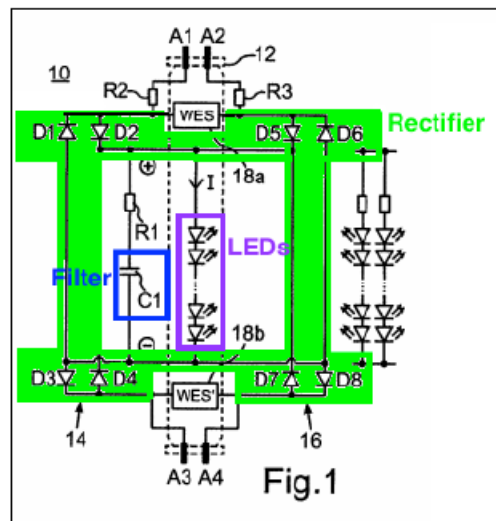
Patent Owner asserts “Petitioner makes no attempt to show how the four diodes D1, D2, D5, and D6 constitute a rectifier—at best, Petitioner merely identifies that these four diodes’ AC inputs ... are in parallel with the left- and right-hand-side terminals of the first filament simulating circuit.” Prelim. Resp. 31 (quoting Pet. 60). Patent Owner argues “Petitioner does not discuss the *outputs* of these four diodes, nor discuss whether or how these four diodes can in conjunction operate to rectify a current, such as showing how a current would travel through D1, D2, D5, and D6 and be converted from AC power to DC power before outputting to the LEDs.” *Id.* We agree that Petitioner does not explicitly support its asserted reading of Osram with sufficient reasoning or evidentiary support.

For anticipation, a “reference need not satisfy an *ipsissimis verbis* test,” i.e., identity of terminology is not required. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009); *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990). Here, however, Petitioner is relying on a reading of Osram that is quite different than (and arguably inconsistent with) Osram’s express disclosure. In such a situation, Petitioner must explain why it would be

proper to read the prior art the way Petitioner suggests. See 37 C.F.R. § 42.104(b)(5) (“The Board may exclude or give no weight to the evidence where a party has failed to state its relevance or to identify specific portions of the evidence that support the challenge.”). A petition must also include “a detailed explanation of the significance of the evidence.” 37 C.F.R. § 42.22(a)(2). Petitioner cannot satisfy its burden of proving unpatentability by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

For the reasons above, we are not persuaded that Petitioner has demonstrated sufficiently a reasonable likelihood of prevailing as to this limitation of claim 21.

Petitioner also relies on its identification of a rectifier in Osram for the limitation of “a filter electrically connected between the rectifier and at least one LED of the LED lamp to store energy from the rectifier and configured to smooth the current from the rectifier,” as recited in claim 21. Pet. 61–62. For example, Petitioner relies on Osram’s disclosure of a filtering capacitor C1 which is connected in parallel with the LEDs, as shown in Petitioner’s annotated Figure 1, reproduced below. *Id.* at 61–62 (citing Ex. 1014 ¶ 2, 24, Fig. 1; Ex. 1003 ¶¶ 138–39).



Petitioner’s annotated Figure 1 of Osram, reproduced above, shows Petitioner’s identification of the following: a rectifier highlighted in green, capacitor C1 (the claimed filter) in a blue box, and LEDs in a purple box which Petitioner asserts places the capacitor C1 between the rectifier and the LEDs.

Patent Owner responds “Petitioner provides no explanation for how the filter could be ‘between’ the surrounding rectifier and the LEDs which are in parallel with the filter. For example, using Petitioner’s reasoning, the LEDs could just as easily be ‘between’ the rectifier and the filter.” Prelim Resp. 35. We agree that Petitioner does not sufficiently support its asserted reading of Osram. Petitioner does not explain how the filter is “between” the LEDs and the rectifier—rather, Petitioner merely asserts that this is so.¹

¹ Although the background section of the Petition redraws Osram’s Figures 1 and 3 to look more like Figure 3 of the ’662 patent (Pet. 19–20 (citing Ex. 1003 ¶ 55)), neither Petitioner nor its declarant provide sufficient explanation of this redrawing or explain how it shows disclosure of this claim limitation.

That the capacitor C1 lies allegedly between the rectifier and the LEDs is not so apparent that it can be stated without explanation.

Under our rules, it is the Petition that must identify where claimed elements are found in the reference(s) and must explain the relevance of those identified portions of the reference(s). *See, e.g.*, 37 C.F.R.

§ 42.104(b)(4) (“The petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon”); *see also* 37 C.F.R. § 42.104(b)(5) (The petition must identify “the relevance of the supporting evidence to the challenge raised, including identifying specific portions of the evidence that support the challenge”). Petitioner’s declarant does not add anything to the contention in the Petition. *See* Ex. 1003 ¶¶ 138–39.

Typically, testimony concerning anticipation must be testimony from one skilled in the art and must identify each claim element, state the witnesses’ interpretation of the claim element, and explain in detail how each claim element is disclosed in the prior art reference. The testimony is insufficient if it is merely conclusory.

Schumer v. Laboratory Computer Systems, Inc., 308 F.3d 1304, 1315–16 (Fed. Cir. 2002) (emphasis added).

Based on the information set forth in the Petition and the testimony of Dr. Zane, we are not persuaded that Petitioner has demonstrated sufficiently a reasonable likelihood of prevailing on this challenge to claim 21.

2. Claim 36

Claim 36 depends from claim 21, and thus, for the same reasons discussed above, Petitioner has not shown a reasonable likelihood of success as to this claim.

3. Claim 23

Claim 23 recites “a first rectifier electrically connected to the current limiting circuit for rectifying the current from the current limiting circuit” and “a filter electrically connected between the first rectifier and at least one LED of the LED lamp for smoothing the current from the first rectifier.” Petitioner relies on its discussion of similar limitations in claim 21, discussed above. As explained above, Petitioner has not shown a reasonable likelihood of showing that Osram discloses “a rectifier” and thus has not shown a “first rectifier” which relies on the same disclosure. Additionally, as explained above, Petitioner has not shown “a filter electrically connected *between* the first rectifier and at least one LED of the LED lamp” (emphasis added).

Thus, based on the information set forth in the Petition and the testimony of Dr. Zane, we are not persuaded that Petitioner has demonstrated sufficiently a reasonable likelihood of prevailing on this challenge to claim 23.

4. Claim 24, 30, 37, and 39

Claims 24, 30, 37, and 39 depend directly or indirectly from claim 23, and thus, for the same reasons discussed above, Petitioner has not shown a reasonable likelihood of success as to these claims.

3. Claims 41 and 42

These independent claims each recite “a first rectifier electrically connected to the current limiting circuit for rectifying the current from the current limiting circuit” and “a filter electrically connected between the first rectifier and at least one LED.” Petitioner relies on its discussion of claim

23 for these claims. Thus, for the same reasons discussed above, Petitioner has not shown a reasonable likelihood of success as to these claims.

IV. CONCLUSION

We determine that Petitioner has not demonstrated a reasonable likelihood of prevailing on its challenges to claims 1, 2, 5–7, 9, 10, 15–18, 21, 23, 24, 29–32, 34–39, 41, and 42 of the '662 patent.

V. ORDER

Upon consideration of the record before us, it is:

ORDERED that the Petition is DENIED and no trial is instituted.

For PETITIONER:

David Radulescu
Jonathan Auerbach
david@radip.com
jonathan@radip.com

For PATENT OWNER:

Matthew Argenti
Michael Rosato
Quincy Lu
margenti@wsgr.com
mrosato@wsgr.com
qalu@wsgr.com