

Appeal No. 2022-1704

***UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT***

NICHIA CORPORATION,

Appellant,

v.

DSS, INC. fka DOCUMENT SECURITY SYSTEMS, INC.,

Appellee.

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in IPR No. IPR2020-00908

**COMBINED PETITION OF APPELLANT NICHIA CORPORATION
FOR PANEL REHEARING OR REHEARING *EN BANC***

November 30, 2023

Thomas R. Makin
Eric S. Lucas
David J. Cooperberg

SHEARMAN & STERLING LLP
599 Lexington Avenue
New York, New York
Tel: 212-848-40000

*Attorneys for petitioner
Nichia Corporation*

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

CERTIFICATE OF INTEREST

Case Number 2022-1704

Short Case Caption Nichia Corporation v. DSS, Inc.

Filing Party/Entity Nichia Corporation

Instructions:

1. Complete each section of the form and select none or N/A if appropriate.
2. Please enter only one item per box; attach additional pages as needed, and check the box to indicate such pages are attached.
3. In answering Sections 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance.
4. Please do not duplicate entries within Section 5.
5. Counsel must file an amended Certificate of Interest within seven days after any information on this form changes. Fed. Cir. R. 47.4(c).

I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: 11/30/2023

Signature: /s/ Eric S. Lucas

Name: Eric S. Lucas

<p>1. Represented Entities. Fed. Cir. R. 47.4(a)(1).</p>	<p>2. Real Party in Interest. Fed. Cir. R. 47.4(a)(2).</p>	<p>3. Parent Corporations and Stockholders. Fed. Cir. R. 47.4(a)(3).</p>
<p>Provide the full names of all entities represented by undersigned counsel in this case.</p>	<p>Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.</p> <p><input checked="" type="checkbox"/> None/Not Applicable</p>	<p>Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.</p> <p><input checked="" type="checkbox"/> None/Not Applicable</p>
<p>Nichia Corporation</p>		

Additional pages attached

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

None/Not Applicable Additional pages attached

5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court’s decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). See also Fed. Cir. R. 47.5(b).

None/Not Applicable Additional pages attached

Document Security Systems, Inc. v. Nichia Corporation, No. 2:19-cv-08172 (C.D. Cal.)		

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

None/Not Applicable Additional pages attached

TABLE OF CONTENTS

STATEMENT OF COUNSEL 1

INTRODUCTION 2

REASONS FOR GRANTING PANEL REHEARING 4

 I. The Board’s FWD Does Not Rest Solely on a Determination that
 the Claimed “Mounting Surface” Does Not Encompass a Single
 Planar Surface..... 4

 A. After IPR Institution, DSS Proposed a New Construction of
 “Mounting Surface,” which the Board Accepted 4

 B. In its IPR Reply, Nichia Alternatively Argued that the Prior
 Art Renders Unpatentable the Challenged Claims even
 under DSS’s Non-Planar “Mounting Surface” 7

 C. The Board Analyzed Nichia’s Alternative IPR Reply
 Arguments and Found Only that “Offsets” Were Not
 Disclosed by the Prior Art..... 9

 D. Nichia Challenged the Board’s Rejection of Nichia’s
 Alternative IPR Reply Arguments on Appeal 10

 II. These Oversights Led the Panel to Issue an Opinion that Fails to
 Address Nichia’s Non-Planar Mounting Surface Arguments, and,
 as a Result, the Board’s “Offsets” Decision..... 12

REASONS FOR GRANTING REHEARING *EN BANC* 14

TABLE OF AUTHORITIES

Page(s)

Cases

Axonics, Inc. v. Medtronic, Inc.,
75 F.4th 1374 (Fed. Cir. 2023)3, 14

STATEMENT OF COUNSEL

Based on my professional judgment, I believe the panel decision is contrary to the following precedent of this Court: *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374 (Fed. Cir. 2023).

By: /s/ Eric S. Lucas

Thomas R. Makin

Eric S. Lucas

David J. Cooperberg

Shearman & Sterling LLP

599 Lexington Avenue

New York, NY 10002

212.848.4000

*Attorneys for Appellant Nichia
Corporation*

INTRODUCTION

The panel's decision, affirming the Board's rejection of Nichia's originally proposed planar construction of "mounting surface" (and, solely on that basis, the final written decision ("FWD")), overlooks the alternative arguments made in Nichia's IPR Reply that the prior art also discloses a "mounting surface" under the non-planar construction adopted in the FWD. Because of that oversight, and the fact that the FWD does not dispute Nichia's identification of a non-planar "mounting surface" in the prior art, the panel improperly fails to address the only limitation on which the Board based its rejection of Nichia's alternative IPR Reply arguments, "offsets."

Specifically, the panel's decision overlooks that: (i) DSS proposed a non-planar construction of "mounting surface" in its Patent Owner's Response that was different from the planar construction proposed in Nichia's Petition; (ii) Nichia explained in its IPR Reply how the same prior art embodiments rendered unpatentable the challenged claims even under DSS's non-planar "mounting surface" construction; (iii) the Board adopted DSS's proposed non-planar construction of "mounting surface"; (iv) the Board considered Nichia's IPR Reply arguments for unpatentability under DSS's non-planar construction of "mounting surface"; and (v) the Board never disputed the presence of a non-planar "mounting

surface” in the prior art under this new construction, and instead found only that the prior art lacked “offsets.”

The panel therefore should not have concluded that “DSS did not provide a construction for ‘mounting surface’” (slip op. 3) or that, “[t]o resolve this matter, the Board only needed to determine [that] the claimed mounting surface [did not] encompass[] a single planar surface” (slip op. 6).

Panel rehearing should be granted in order to review the Board’s disposition of Nichia’s IPR Reply arguments that were based on the non-planar construction of “mounting surface” proposed by DSS and ultimately adopted by the Board.

However, if the panel did not overlook Nichia’s alternative IPR Reply arguments made in response to DSS’s post-institution construction of “mounting surface,” but rather held that it did not need to reach them, such a position conflicts with this Court’s precedential decision *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374 (Fed. Cir. 2023) and Nichia petitions for rehearing *en banc*.

REASONS FOR GRANTING PANEL REHEARING

I. The Board’s FWD Does Not Rest Solely on a Determination that the Claimed “Mounting Surface” Does Not Encompass a Single Planar Surface

The panel overlooked that the Board’s FWD does not rest solely on a determination that the claimed “mounting surface” does not encompass a single planar surface, but also on a determination that the prior art failed to disclose “offsets” under the Board’s non-planar construction of “mounting surface.”

A. After IPR Institution, DSS Proposed a New Construction of “Mounting Surface,” which the Board Accepted

Nichia’s IPR Petition set forth a planar construction of “mounting surface” under which the mounting surface “does not follow the contours of its recesses.” Opening Br. at 22 (citing Appx0115) (emphasis altered). The Board instituted Nichia’s IPR, finding, *inter alia*, that Nichia’s “mounting surface” construction was sufficiently supported. Opening Br. at 23–24 (citing Appx0672-0674). However, in light of (i) the potential indefiniteness issue that Nichia raised in its IPR Petition and (ii) DSS’s decision not to submit a pre-institution Preliminary Response, the Board encouraged the parties, during trial, to address the construction of “mounting surface” and “the related issue of how (1) the mounting surface has ‘recesses’ to which portions of the ‘electrical contacts’ conform yet (2) the mounting surface is spaced apart from those contacts by ‘offsets.’” Opening Br. at 24 (citing Appx0674).

In its post-Institution Patent Owner’s Response, DSS, relying on the testimony of its expert, Dr. Baker, proposed the following non-planar construction for the claim phrase “the mounting surface having a plurality of recesses”: “the mounting surface having indentations or clefts that provide room for solder to mount the device.” Appx0705; *see also* Opening Br. at 24; Appx0748. Critically, DSS and Dr. Baker further explained that, under that construction, the “mounting surface” ***does*** “follow the contours of the recesses,” *i.e.*, it is non-planar. Opening Br. at 24; *see also id.* at 40, 53; Appx0705 (“Thus, under the plain language of claim 1, the mounting surface has ‘recesses at side edges’ and thus, does follow the contours of the recesses contrary to Dr. Shealy’s construction. Ex. 2001, Baker Decl., ¶40. [Appx0747]”); Appx1182 (“Unlike Patent Owner’s Construction: (1) Petitioner’s proposed mounting surface ... is ‘planar’ and ... ‘does not follow the contours of the recesses.’”).

The Board acknowledged, and ultimately adopted, DSS’s construction of “mounting surface” as a surface that “follow(s) the contours of its recesses.” Opening Br. at 41; Reply Br. at 2. For example, the FWD states:

In its Response, Patent Owner disputes only Petitioner’s proposed construction of “mounting surface.” In particular, ***Patent Owner argues that “the mounting surface having a plurality of recesses” should be construed as “the mounting surface having indentations or clefts that provide room for solder to mount the device.”*** According to Patent Owner, the mounting surface must “follow the contours of the recesses.”

....[W]e agree with Patent Owner that “the mounting surface having a plurality of recesses,” as recited in claim 1, means that the recesses are in the mounting surface itself.

Appx0009-10 (citations omitted; emphases added).

As is evident from the above, the panel’s decision incorrectly concludes that “DSS did not provide a construction for ‘mounting surface.’” Slip op. 3. To the contrary, DSS’s Patent Owner’s Response proposed construing “mounting surface” to be a non-planar surface that follows the contours of its recesses.

The panel’s oversight may have stemmed from its over reliance on a footnote in DSS’s IPR sur-reply that is cited in the panel’s decision. That footnote states, “Patent Owner’s construction is for the term ‘the mounting surface having a plurality of recesses at side edges, of the body.’ Patent Owner has not offered a construction for ‘mounting surface.’” Appx1182 n.1. But, of course, the fact that DSS construed a longer phrase does not diminish the fact that DSS imposed a “follow the contours of its recess” non-planarity requirement on the “mounting surface” that is materially at odds with the planar construction presented in Nichia’s IPR Petition. In fact, the cited footnote itself hangs off DSS’s own admission that the parties offered “competing constructions” with respect to “mounting surface,” Nichia’s construction being “planar” and DSS’s being non-planar. Appx1181-82.

B. In its IPR Reply, Nichia Alternatively Argued that the Prior Art Renders Unpatentable the Challenged Claims even under DSS’s Non-Planar “Mounting Surface”

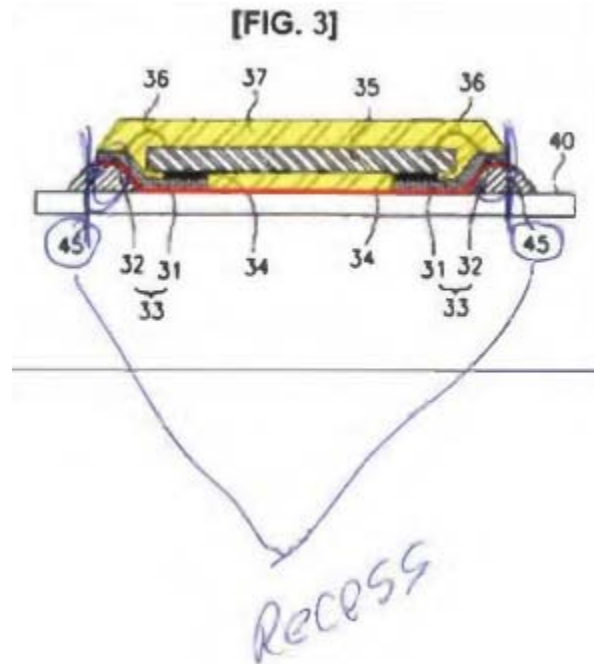
In its IPR Reply, Nichia responded to DSS’s (and Dr. Baker’s) new non-planar “mounting surface” claim construction by explaining that, even under that construction, each of the asserted prior art references renders the challenged claims unpatentable. Opening Br. at 26–28 (citing Appx0931-0939); Reply Br. at 20.

For example, with respect to the Kim prior art, Nichia’s IPR Reply states:

Petitioner understands DSS’s objection to [Petitioner’s planar “mounting surface” identification to] mean that, as discussed in §II.B, the “mounting surface” must allegedly follow the contours of its recesses—a requirement Petitioner rejected for reasons previously explained. Petition, 14-18 [Appx0111-0115]. **Even if “mounting surface” were so construed, Kim discloses it.** For example, Dr. Baker admitted that the red-line annotation in Kim’s Figure 3 below discloses his interpretation of the “mounting surface having a plurality of recesses at side edges of the body” (assuming the yellow shading correctly identifies body part 37). EX1025, 108:19-109:21 [Appx1068-1069].

Appx0933 (emphasis added); *see also, e.g.*, Appx0932 (Kim discloses “‘a plurality of recesses’—the depressions or indentations in molded resin package body 37, including grooves 38 under internal leads 32—at ‘side edges of [that] body.’ Even imposing DSS’s improper ‘solder’ requirement, these constitute a ‘plurality of recesses.’”) (citations omitted).

The above-referenced annotation of Kim’s Figure 3 is reproduced below and shows (as a red line) a non-planar mounting surface that follows the contours of its recesses:



Opening Br. at 27 (citing Appx0934 and reproducing an excerpt from Appx1160).

Nichia further explained in its IPR Reply that, using DSS’s non-planar construction of “mounting surface,” each of the asserted prior art references still discloses “offsets between said mounting surface and said electrical contacts.”

Opening Br. at 28 (citing Appx0934 n. 5); Reply Br. at 21.

For example, with respect to the Kim prior art, Nichia’s IPR Reply states:

Further, applying Dr. Baker’s method of identifying claim 1’s “offsets” (see §II.B) as a distance in a y-direction between the bottom of the electrical contact in the recess and a lower portion of the mounting surface at a different

location, Kim discloses “offsets between said mounting surface and said electrical contacts.”

Appx0934 n. 5.

C. The Board Analyzed Nichia’s Alternative IPR Reply Arguments and Found Only that “Offsets” Were Not Disclosed by the Prior Art

As explained above, the Board’s FWD accepted DSS’s and Dr. Baker’s proposed non-planar claim construction for “the mounting surface having a plurality of recesses” and disposed of Nichia’s original invalidity arguments in which the claimed “mounting surface” was presumed to refer to the planar surface at which the device was mounted. Opening Br. at 31 [citing Appx0010]; Reply Br. at 21 [citing Appx0017].

The Board’s FWD next considered the alternative invalidity arguments presented in Nichia’s IPR Reply in which the claimed “mounting surface” was presumed to be non-planar. Appx0017 (“Petitioner argues that, even under Dr. Baker’s analysis, Kim discloses the claimed mounting surface.”) (citing Appx0933-34); *see also* Reply Br. at 21.

The Board ultimately rejected Nichia’s alternative invalidity arguments, but not because the prior art lacked a non-planar “mounting surface.” Rather, the Board found only the claimed “offsets between said mounting surface and said electrical contacts” to be absent from the prior art:

Contrary to the claim’s requirement that the device itself comprise a mounting surface with “recesses and electrical

contacts [that] are sized to provide *offsets between said mounting surface and said electrical contacts,*” both Kim’s device and the Figure 4A embodiment show recesses between *the device and a flat surface on which the device is mounted. Compare* [Appx0486 (Figs. 1, 3)], *with* [Appx0078, Appx0087 (Fig. 4A, 5:11-14)].

Opening Br. at 34 (citing, *e.g.*, Appx0018) (emphasis in original FWD); Appx0018-0021 (re: Adachi); Appx0021-0023(re: Nagayama); Appx0023-0025 (re: Okazaki).

In other words, as Nichia articulated in its appellate Reply brief:

The Board considered and improperly rejected these arguments *not* because Nichia failed to identify the recited “mounting surface” [under DSS’s construction of the term]—even DSS’s expert admitted that the prior art does disclose this “mounting surface” (Appx1068-1069 (Baker Tr., 108:19-109:21))—but because the Board rejected Nichia’s (and Dr. Baker’s) identification of “*offsets between said mounting surface and said electrical contacts*” (Appx0018 (emphasis in original)), a claim limitation that the Board admitted it did not understand

Reply Br. at 21–22 (emphasis in original).

D. Nichia Challenged the Board’s Rejection of Nichia’s Alternative IPR Reply Arguments on Appeal

Nichia appealed from the FWD specifically with respect to the Board’s rejection of Nichia’s alternative IPR Reply arguments, because the Board refused to provide a construction of “offsets”—the only limitation the Board found missing under these alternative arguments—consistent with the intrinsic evidence, including Figure 4A, and because it appeared from the evidence and the Board’s opinion that such a construction was impossible.

For example, Nichia argued on appeal:

[T]he Board found the Challenged Claims not unpatentable because—under DSS’s and the Board’s construction of “mounting surface”...—no “offsets” are logically possible in the prior art.

* * *

The Board used that impossibility both to reject Nichia’s Figure 4A-based proposed construction and to find that the prior art lacks “offsets” in view of DSS’s and the Board’s construction [of “mounting surface”]. The Board should have declined to reach a determination as to patentability in its FWD, such that estoppel does not apply to Nichia. Or ... the Board should have construed “mounting surface having a plurality of recesses at side edges of the body”—and related claim terms including “offsets”—based on the patent figures and the related prosecution history, as the parties below urged.

Opening Brief at 42–44 (citations omitted).

Nichia’s Reply reiterated these points:

[B]oth parties agree that, if analyzed at all, the prior art should have been analyzed using a construction of claim 1 that reads on at least the Figure 4A embodiment, *e.g.*, by measuring “offsets” between the contacts and a planar mounting surface or a planar projection of the mounting surface. Had the Board done so, it necessarily would have concluded, at a minimum, that the prior art discloses these same “offsets,” which was the only deficiency noted by the Board in rejecting Nichia’s proposed grounds of unpatentability under the Board’s construction of “mounting surface.”

Reply Br. at 19 (emphases in original; citations omitted); *see also id.* at 3, 15, 21.

Accordingly, on appeal, Nichia asked:

[D]id the Board err by failing to construe “mounting surface having a plurality of recesses at side edges of the body” and “offsets between said mounting surface and said electrical contacts” based on the patent figures and the related prosecution history, as both parties below urged, and therefore finding the claims not unpatentable?

Opening Br. at 2; *see also id.* (“[W]as it error for the Board to have proceeded to compare the claims to the prior art and to have found the art distinguishable due to the impossibility of having ‘offsets’ between the ‘mounting surface’ and the ‘contacts’?”).

II. These Oversights Led the Panel to Issue an Opinion that Fails to Address Nichia’s Non-Planar Mounting Surface Arguments, and, as a Result, the Board’s “Offsets” Decision

Notwithstanding the above explanation and arguments in Nichia’s appellate briefing, the panel’s decision ignores the Board’s analysis of the alternative invalidity arguments presented in Nichia’s IPR Reply, *i.e.*, the arguments that applied the non-planar construction of “mounting surface” proposed by DSS post-institution and ultimately adopted by the Board. Instead, the panel’s decision acknowledges only Nichia’s original invalidity arguments based on a planar mounting surface:

For each ground, *Nichia relied on a prior art reference’s disclosure of a single planar surface as teaching the claimed mounting surface.* *See* J.A. 137–41 (Kim), J.A. 157–60 (Adachi), J.A. 170–73 (Nagayama), J.A. 181–84 (Okazaki). Nichia also relied on Figure 4A of the ’040 patent to demonstrate the prior art references teach the claimed mounting surface. *Decision*, at *6–9. *To resolve*

this matter, the Board only needed to determine whether the claimed mounting surface encompassed a single planar surface. See *Decision*, at *6–9; see also J.A. 1287 (Board explaining it need not “determine . . . the precise relationship between the recited ‘mounting surface’ and the contacts”). As discussed above, **the Board properly concluded it does not.**

Slip Op. at 6 (emphases added).

If the panel had not overlooked the alternative invalidity arguments presented in Nichia’s IPR Reply, and the Board’s analysis thereof, the panel would not have concluded that the Board “only needed to determine whether the claimed mounting surface encompassed a single planar surface” to resolve the IPR. *Id.* That is because, as explained above and in Nichia’s appellate briefing, Nichia’s IPR Reply included permissible alternative invalidity arguments relying on the prior art references’ additional disclosures of a **non-planar** surface that would constitute the “mounting surface” under the Board’s construction of that term.

Further, had the panel considered Nichia’s alternative invalidity arguments—which the Board rejected solely on the basis that the Board failed to identify “offsets” in the prior art—it would have had to address the proper construction of the “offsets” limitation. In particular, as requested by Nichia on appeal, the panel would have had to grapple with the impossibility issue with respect to the “offsets” limitation, and the impropriety of the Board resting its patentability determination on the absence of a limitation—“offsets between said mounting surface and said electrical

contacts”—that it professed seemed impossible to practice. Opening Br. at 32–33 (citing Appx0014-0015); *Id.* at 42–44, 56–74.

REASONS FOR GRANTING REHEARING *EN BANC*

To the extent that the panel did not simply overlook Nichia’s IPR Reply arguments, but rather intentionally ignored them because the panel found that the arguments were improperly raised in Nichia’s IPR Reply, the panel’s decision is in conflict with this Court’s precedential decision *Axonics, Inc.*, 75 F.4th 1374.

In *Axonics*, this Court examined “whether, where a patent owner offers a new claim construction for the first time in its response after the institution decision, a petitioner may introduce new arguments and evidence in reply under the newly proposed claim construction.” *Id.* at 1380.

This Court held as follows:

We hold that where a patent owner in an IPR first proposes a claim construction in a patent owner response, a petitioner must be given the opportunity in its reply to argue and present evidence of anticipation or obviousness under the new construction, at least where it relies on the same embodiments for each invalidity ground as were relied on in the petition.

Id. at 1384.

That is precisely what Nichia did in the IPR. DSS raised a new claim construction for the “mounting surface” phrase, and Nichia in its IPR Reply explained—using the same prior art embodiments as in the Petition—that the prior art invalidated the claims even under DSS’s construction.

If the panel ignored Nichia’s non-planar “mounting surface” arguments because it found that the arguments were improperly raised in Nichia’s IPR Reply, then Nichia petitions for *en banc* rehearing.

Dated: November 30, 2023

Respectfully submitted,

SHEARMAN & STERLING LLP

By: /s/ Eric S. Lucas

Thomas R. Makin

Eric S. Lucas

David J. Cooperberg

Shearman & Sterling LLP

599 Lexington Avenue

New York, NY 10002

212.848.4000

*Attorneys for Appellant Nichia
Corporation*

ADDENDUM

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

NICHIA CORPORATION,
Appellant

v.

**DSS, INC., FKA DOCUMENT SECURITY SYSTEMS,
INC.,**
Appellee

2022-1704

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2020-
00908.

Decided: November 2, 2023

ERIC SEBASTIAN LUCAS, Shearman & Sterling LLP,
New York, NY, argued for appellant. Also represented by
DAVID JEFFREY COOPERBERG, THOMAS R. MAKIN.

MATTHEW J. SMITH, Remenick PLLC, Washington, DC,
argued for appellee. Also represented by JAMES REMENICK;
PAUL ANTHONY KROEGER, BRIAN DAVID LEDAHL, Russ Au-
gust & Kabat, Los Angeles, CA.

Before MOORE, *Chief Judge*, STOLL and CUNNINGHAM, *Circuit Judges*.

MOORE, *Chief Judge*.

Nichia Corporation appeals a Patent Trial and Appeal Board final written decision holding claims 1–4, 8, and 11 of the U.S. Patent No. 6,879,040 are not unpatentable. We affirm.

BACKGROUND

The '040 patent, which is owned by DSS, Inc., relates to improvements in surface mount technology, wherein devices are mounted directly on a surface without being plugged into it. '040 patent at 1:10–12. The patent addresses the need for surface mounted opto-electronics, such as light emitting diodes (LEDs), to have a small footprint, while maintaining low thermal resistance. *Id.* at 2:48–53. The '040 patent solves this problem by disclosing surface mountable electronic devices with electrical connections in recesses to allow solder to connect the device to the surface. *Id.* at 1:4–7. The disclosed surface mountable device includes at least two electrically conductive members in the underside that bend upwards at an angle to form a recess. *Id.* at 3:40–59.

Claim 1 is the sole independent claim at issue and recites:

1. A surface mountable electronic device, comprising:

a packaged body having *a mounting surface, the mounting surface having a plurality of recesses at side edges of the body* and

a plurality of electrical contacts, each of which extends from an interior portion of the mounting surface and terminates in one of said recesses, and each of which conforms to one of said recesses, wherein said recesses and electrical contacts are

sized to provide offsets between said mounting surface and said electrical contacts.

Id. at claim 1 (emphases added).

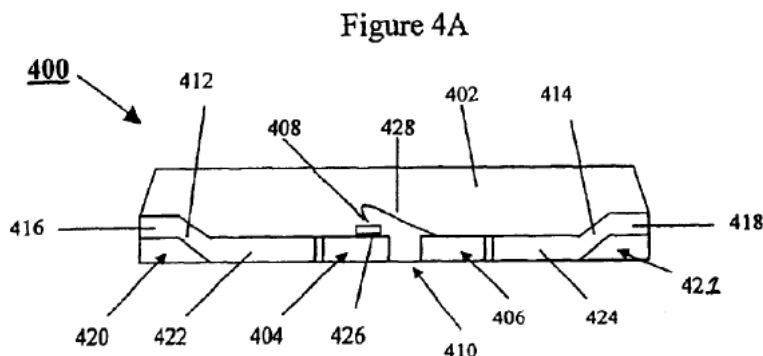
Nichia filed a petition for *inter partes* review challenging claims 1–4, 8, and 11 of the '040 patent. In its petition, Nichia proposed constructions for several terms, including “mounting surface” to mean “planar surface at which the device is mounted, which surface is essentially co-planar with the planar bottom surface of the body, and which surface does not follow the contours of its recesses.” J.A. 115. The Board instituted the petition and requested the parties address “the proper construction of the claim terms ‘mounting surface’ and ‘recesses.’” J.A. 674. DSS did not provide a construction for “mounting surface.” J.A. 1182 n.1. The Board issued a final written decision holding Nichia had not met its burden to show the challenged claims were unpatentable. *Nichia Corp. v. Document Security Systems, Inc.*, IPR2020-00908, 2021 WL 6335708 (P.T.A.B. Nov. 16, 2021) (*Decision*). In reaching its conclusion, the Board construed “mounting surface” as including the recesses in the mounting surface itself such that a single planar surface cannot satisfy the limitation. *Id.* at *4. The Board also concluded the embodiment shown in Figure 4A does not fall within the scope of claim 1. *Id.* Nichia appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

We review the Board’s claim construction de novo and review any necessary subsidiary factual findings based on extrinsic evidence for substantial evidence. *HTC Corp. v. Cellular Commc’ns Equip., LLC*, 877 F.3d 1361, 1367 (Fed. Cir. 2017). Claim terms are generally given their plain and ordinary meaning, i.e., the meaning the terms would have to a person of ordinary skill in the art when read in the context of the claim, specification, and prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

The Board construed “mounting surface” to mean a mounting surface with recesses in the surface itself and concluded the claim term does not encompass a single planar surface. *Decision*, at *4. Nichia appealed arguing that the Board’s partial construction creates a logical impossibility such that the claims cannot be compared to the prior art. We do not agree. The claim language and written description support the Board’s construction requiring a mounting surface having recesses. Claim 1 expressly requires “the mounting surface *having a plurality of recesses* at the side edges of the body.” ’040 patent at claim 1 (emphasis added). Additionally, the ’040 patent repeatedly describes the invention as having a mounting surface with recessed portions in it. For example, the patent describes a surface mountable electronic device with “a body with a first, mounting surface,” wherein the “first surface is recessed with recessed portions in it.” *Id.* at 3:60–67; *see also id.* at 2:54–57, 5:1–15, 5:48–65, 8:24–33.

The written description, specifically Figure 4A, also supports the Board’s conclusion that the claimed mounting surface does not encompass a single planar surface. Figure 4A illustrates an embodiment of the invention:



As shown in Figure 4A, the surface mountable optoelectronic device 400 includes an optically transparent body 402, two electrical contacts, 404, 406, and a LED 408. *Id.* at 4:60–63. The two electrical contacts are mounted in the

underside 410, which is the mounting surface of the device. *Id.* at 5:1–4. Each electrical contact includes a first portion containing a diagonally upward extending portion 412, 414 and a horizontal portion 416, 418. *Id.* at 5:7–11. Recesses 420, 421 are formed between the first portions of the electrical contacts and a flat surface on which the device is mounted. *Id.* at 5:11–15.

As the Board explained, the embodiment in Figure 4A describes both a mounting surface and a separate flat surface on which the device is mounted. *Decision*, at *4 (citing '040 patent at 5:3–14). The electrical contacts are mounted in the underside of the device—i.e., the mounting surface—and follow a zigzag configuration that creates recesses between the contacts and “a flat surface on which the device is mounted.” '040 patent at 5:3–14; *see also Decision*, at *4–5. Because Figure 4A includes *both* a non-planar mounting surface and a separate planar surface on which the device is mounted, the claimed mounting surface cannot be a single planar surface. *Decision*, at *4–6; *see also J.A.* 1287–89 (explaining why Figure 4A cannot support Nichia's contention that mounting surface should be construed as a plane). Therefore, the Board's construction follows the ordinary meaning of “mounting surface” in light of the intrinsic evidence as would have been understood by a skilled artisan.

Nichia argues the Board's construction is incomplete as it fails to resolve an apparent logical impossibility in claim 1 requiring the electrical contacts to both conform to the recesses in the mounting surface and be offset from the mounting surface. Appellant's Br. at 56–63. According to Nichia, the Board erroneously relied on this requirement to find the prior art lacks an element of the claim. *Id.* at 62–63. We do not agree.

First, the Board is required to construe “only those terms . . . that are in controversy, and *only to the extent necessary* to resolve the controversy.” *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)

(emphasis added). This is exactly what the Board did. Nichia’s petition asserted five different grounds of unpatentability. *Decision*, at *2. For each ground, Nichia relied on a prior art reference’s disclosure of a single planar surface as teaching the claimed mounting surface. *See* J.A. 137–41 (Kim), J.A. 157–60 (Adachi), J.A. 170–73 (Nagayama), J.A. 181–84 (Okazaki). Nichia also relied on Figure 4A of the ’040 patent to demonstrate the prior art references teach the claimed mounting surface. *Decision*, at *6–9. To resolve this matter, the Board only needed to determine whether the claimed mounting surface encompassed a single planar surface. *See Decision*, at *6–9; *see also* J.A. 1287 (Board explaining it need not “determine . . . the precise relationship between the recited ‘mounting surface’ and the contacts”). As discussed above, the Board properly concluded it does not.

Second, we have held the Board can render prior art patentability determinations even if claims are indefinite. *Samsung Elecs. Am. Inc. v. Priusa Eng’g Corp.*, 948 F.3d 1342, 1355 (Fed. Cir. 2020) (explaining indefiniteness does not “necessarily preclude the Board from addressing patentability” on other grounds). In *Intel Corp. v. Qualcomm Inc.*, we explained “indefiniteness of a limitation . . . precludes a patentability determination *only when* the indefiniteness renders it logically impossible for the Board to reach such a decision.” 21 F.4th 801, 813 (Fed. Cir. 2021) (emphasis added). We further explained that “it is not always impossible to adjudicate a prior-art challenge” because of alleged indefiniteness of one limitation. *Id.* Here, the Board properly rendered a patentability determination because it did not conclude such determination was logically impossible based on any alleged indefiniteness.

The Board proceeded exactly as our case law prescribes—deciding only the issues necessary to resolve the dispute before it. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (affirming the Board’s decision not to construe the

NICHIA CORPORATION v. DSS, INC.

7

preamble because it was not material to the dispute). The Board was not required to reach Nichia’s arguments about any alleged indefiniteness because its construction was sufficient to apply the asserted prior art in this dispute. The Board was also correct in rendering its patentability determination because it was not impossible to do so. We affirm the Board’s construction of “mounting surface” and its final written decision on patentability.

CONCLUSION

For the reasons given, we affirm the Board’s conclusion that Nichia did not meet its burden to show claims 1–4, 8, and 11 are unpatentable.

AFFIRMED

CERTIFICATE OF COMPLIANCE

The foregoing filing complies with the type-volume limitations of the Federal Rules of Appellate Procedure and Federal Circuit Rules. The brief contains 2,888 words (as calculated using Microsoft Word's Word Count feature), excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and Federal Circuit Rule 32(b).

This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). The brief has been prepared in a proportionally-spaced typeface using Microsoft Word for Office 365 in Times New Roman 14-point type.

Dated: November 30, 2023

/s/ Eric S. Lucas

Eric S. Lucas
Shearman & Sterling LLP
599 Lexington Avenue
New York, NY 10002
212.848.4000

*Attorneys for Appellant Nichia
Corporation*