

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG DISPLAY CO., LTD.,  
Petitioner,

v.

PICTIVA DISPLAYS INTERNATIONAL LTD.,  
Patent Owner.

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IPR2024-01187  
Patent 9,257,492 B2

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Before GARTH D. BAER, MICHAEL G. MCMANUS, and  
JASON M. REPKO, *Administrative Patent Judges*.

MCMANUS, *Administrative Patent Judge*.

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

## I. INTRODUCTION

### A. *Summary*

Samsung Display Co., Ltd. (“Petitioner”) filed a Petition (Paper 1) (“Pet.”) requesting *inter partes* review of claims 1–3, 5, 6, 8–11, and 16 of U.S. Patent No. 9,257,492 B2 (Ex. 1001, “the ’492 patent”) pursuant to 35 U.S.C. §§ 311–319. Pictiva Displays International Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). With permission of the Board, Petitioner filed a Preliminary Reply (“Reply”) (Paper 7) and Patent Owner filed a Pre-Institution Sur-reply (“Sur-reply”) (Paper 9) limited to addressing discretionary denial of institution and the construction of one claim term. Ex. 3001.

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Statute provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. §314(a). For the reasons explained below, we determine that Petitioner has shown that there is a reasonable likelihood of prevailing with respect to at least one challenged claim.

### B. *Real Parties in Interest*

Petitioner identifies Samsung Display Co., Ltd., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. as real parties-in-interest. Pet. 2.

Patent Owner identifies Pictiva Displays International Ltd., as “the owner” of the ’492 patent. Paper 3, 1. Patent Owner indicates that Pictiva

Displays International Ltd. is “a subsidiary of Key Patent Innovations Limited.” *Id.* Patent Owner further states that Key Patent Innovations Limited “is a wholly-owned subsidiary of New PP Licensing, LLC.” *Id.*

*C. Related Matters*

The parties indicate that the ’492 patent is at issue in the following matters:

*Pictiva Displays International Ltd. v. Samsung Electronics Co., Ltd.*, Case No. 2:23-cv-00495 (E.D. Tex.). Pet. 2; Paper 3, 1.

*Pictiva Displays International Ltd. et al., v. Samsung Elecs. Co., Ltd. et al.*, No. 2:24-cv-00532 (E.D. Texas). Pet. 2; Paper 3, 1.

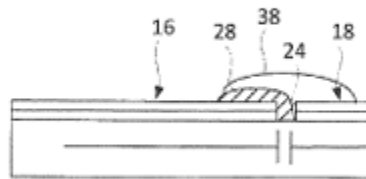
*D. The ’492 Patent*

The ’492 patent is titled “Method for Producing a Passive Electronic Component, Method for Producing an Optoelectronic Assembly and Passive Electronic Component.” Ex. 1001, code (54). The specification of the ’492 patent teaches that, in optoelectronic devices such as organic light emitting diodes (OLEDs), “insulators and/or dielectrics serve, inter alia, to separate and/or electrically insulate two electrode regions from one another.” *Id.* at 1:23–26. The specification further teaches that certain insulators and dielectrics are expensive and complex to apply using processes such as lithography. *Id.* at 1:27–29.

The specification teaches that passive electronic components may be produced in a cost-effective manner by applying certain features of the component in a “structured fashion.” *Id.* at 1:47–65. The specification indicates that “applied in a structured fashion” means “that the desired

structure is already formed during the application of the corresponding layer.” *Id.* at 1:67–2:3. This is shown in Figure 16, a portion of which is reproduced below.

Fig. 16



Ex. 1001, Fig. 16 (excerpt). Figure 16 depicts dielectric 28 (hatched) as well as electrode layer 38 each applied in structured fashion. *Id.* at 14:31–36.

#### *E. Challenged Claims*

The Petition asserts that claims 1–3, 5, 6, 8–11, and 16 of the '425 patent are unpatentable. Pet. 1. Independent claims 1, 10, and 16 are illustrative of the relevant subject matter and are reproduced below.

1. A method for producing a passive electronic component, comprising:  
forming a first electrically conductive layer on a substrate,  
forming a second electrically conductive layer on the first electrically conductive layer,  
forming a first trench in the first and second electrically conductive layers such that the substrate is exposed in the first trench, wherein the first trench separates a first contact region from a second contact region,  
applying a dielectric in a structured fashion to the second electrically conductive layer in the first contact region and at least partly to the substrate in the first trench such that the dielectric electrically insulates the first contact region from the second contact region, and applying an electrically

conductive electrode layer in a structured fashion to the dielectric above the first contact region and to the second contact region.

10. A method for producing an optoelectronic assembly, comprising:

forming a passive electronic component,

the passive electronic component, comprising:

a first electrically conductive layer on a substrate,

a second electrically conductive layer on the first electrically conductive layer,

a first trench formed in the first and second electrically conductive layers,

wherein the first trench separates a first contact region from a second contact region,

a dielectric, which is applied in a structured fashion to the second electrically conductive layer in the first contact region and at least partly on the substrate in the first trench such that the dielectric electrically insulates the first contact region from the second contact region, and an electrically conductive electrode layer, which is applied in a structured fashion to the dielectric above the first contact region and to the second contact region,

applying the dielectric in a structured fashion to the second layer such that the dielectric demarcates a component region for forming an optoelectronic component relative to the second contact region,

forming an optically functional layer in the component region, and

applying the electrode layer in a structured fashion such that a part of the electrode layer covers the optically functional layer.

16. A passive electronic component, comprising:

a first electrically conductive layer on a substrate,  
a second electrically conductive layer on the first electrically conductive layer,  
a first trench formed in the first and second electrically conductive layers, wherein the first trench separates a first contact region from a second contact region,  
a dielectric, which is applied in a structured fashion on the second electrically conductive layer in the first contact region and at least partly on the substrate in the first trench such that the dielectric electrically insulates the first contact region from the second contact region, and  
an electrically conductive electrode layer, which is applied in a structured fashion to the dielectric above the first contact region and at least partly on the second contact region.

Ex. 1001, 20:27–22:42.

*F. Asserted Challenges to Patentability*

The Petition sets forth the following challenges to patentability (Pet. 4).

| Ground | Claim(s)<br>Challenged | 35 U.S.C. § | Reference(s)/Basis                      |
|--------|------------------------|-------------|-----------------------------------------|
| I      | 1, 2, 8–11, 16         | 103         | Ingle <sup>1</sup> , Hasei <sup>2</sup> |
| II     | 1, 2, 8, 16            | 103         | Hanamura <sup>3</sup>                   |
| III    | 3, 5, 6                | 103         | Hanamura, Egitto <sup>4</sup>           |

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<sup>1</sup> Ex. 1004, WO 2011/036089 A1, pub. Mar. 31, 2011 (citations to Ex. 1005 (certified translation)).

<sup>2</sup> Ex. 1006, JP2003-317610, pub. Nov. 7, 2003 (citations to Ex. 1007 (certified translation)).

<sup>3</sup> Ex. 1008, U.S. Pat. No. 5,691,877, iss. Nov. 25, 1997.

<sup>4</sup> Ex. 1013, U.S. Pat. App. 2009/0178271 A1, pub. July 16, 2009.

*G. Declaratory Testimony*

In support of its assertions of unpatentability, Petitioner advances the Declaration of Alex Z. Kattamis, Ph.D. (Ex. 1003). Patent Owner advances the Declaration of P. Morgan Pattison, Ph.D. (Ex. 2001).

II. ANALYSIS

*A. Principles of Law*

*1. Burden*

A petition for *inter partes* review “may be considered only if . . . the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3). Petitioner bears “the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). This burden of persuasion never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). An *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

*2. Discretionary Denial*

*a. Section 314(a)*

We have discretion to deny institution of an *inter partes* review under the provisions of 35 U.S.C. § 314(a) (authorizing institution of an *inter partes* review under particular circumstances, but not requiring institution

under any circumstances). *See Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *SAS Inst. Inc. v. Iancu*, 138 S.Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review . . . .” (emphasis omitted)); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

When determining whether to exercise discretion to deny institution in view of a parallel proceeding, we consider the factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). “These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.*

In *Sotera Wireless, Inc. v. Massimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential), the Board declined to exercise its discretion to deny review under *Fintiv* where the patent owner stipulated “if IPR is instituted, they will not pursue in the District Court Litigation any ground raised or that could have been reasonably raised in an IPR.” *Sotera Wireless*, Paper 12 at 18.

Moreover, on June 21, 2022, the Director of the United States Patent and Trademark Office issued a Memorandum setting forth an “Interim Procedure for Discretionary Denials in AIA Post Grant Proceedings with

Parallel District Court Litigation” (“Guidance Memo”).<sup>5</sup> The Guidance Memo states that “[c]onsistent with *Sotera Wireless, Inc.*, the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” Guidance Memo 3 (footnote and emphasis omitted).

*b. Section 325(d)*

Section 325(d) provides that, in determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). The Board uses a two-part framework in determining whether to exercise its discretion under § 325(d), specifically:

- (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and
- (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

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<sup>5</sup> Available at [https://www.uspto.gov/sites/default/files/documents/interim\\_proc\\_discretionary\\_denials\\_aia\\_parallel\\_district\\_court\\_litigation\\_memo\\_20220621\\_.pdf](https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf).

*Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”).

### 3. *Obviousness*

“Section 103[ ] forbids issuance of a patent when the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (internal quotation marks omitted); *see also* 35 U.S.C. § 103.

Obviousness under Section 103 is resolved based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). An obviousness analysis should additionally “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418.

### 4. *Level of Ordinary Skill in the Art*

Petitioner proposes that a person of ordinary skill in the art (“POSITA”) for the ’492 patent would have the following qualifications:

a bachelor’s degree in Electrical Engineering, Physics, or a comparable field of study, and at least three years of research or industrial experience with semiconductor (organic or inorganic) optoelectronic devices and/or lighting or displays. An

individual with additional education could have less research or industrial experience and vice-versa.

Pet. 9. For purposes of institution, Patent Owner does not dispute Petitioner's proposed definition of a person of ordinary skill in the art. Prelim. Resp. 6 ("Solely for purposes of this Preliminary Response, Pictiva applies the skill level proposed by Petitioner.").

Accordingly, for purposes of institution, we adopt Petitioner's proposed level of ordinary skill in the art.

*B. Discretionary Denial*

*1. Section 314(a)*

The parties indicate that the '492 patent is the subject of a pending district court proceeding. *See supra* § I.C. In its Preliminary Response, Patent Owner presents argument regarding the *Fintiv* factors and urges the Board to exercise its discretion under 35 U.S.C. § 314(a) to deny institution. Prelim. Resp. 43–46. Subsequent to the Preliminary Response, Petitioner filed its Preliminary Reply as well as a stipulation. The Preliminary Reply provides that "[i]f the Board institutes this IPR, Defendants in *Pictiva Displays Int'l Ltd. v. Samsung Elecs. Co.*, No. 2:23-cv-0495 (E.D. Tex.), stipulate not to pursue invalidity defenses based on grounds that were raised or reasonably could have been raised in this IPR." Reply 1. Similarly, the stipulation provides as follows:

Defendants hereby stipulate that, if the Patent Trial and Appeal Board institutes an inter partes review proceeding for U.S. Patent No. 9,257,492 on the grounds presented in the petition in IPR2024-01187, then Defendants will not pursue an invalidity defense in this case that the patent claims subject to the instituted IPR are invalid based on grounds that were raised or reasonably could have been raised in the IPR.

Ex. 1026.

Petitioner argues that such stipulation is dispositive regarding discretionary denial under section 314(a). Preliminary Reply at 1. Patent Owner has not disputed the effect of this stipulation.

Consistent with the Guidance Memo, therefore, we decline to exercise our discretion to deny institution under *Fintiv* in view of the District Court action. *See* Guidance Memo 3.

2. *Section 325(d)*

Patent Owner argues that the Board should exercise its discretion to deny the Petition under section 325(d) because substantially the same art was before the Office during prosecution. Prelim. Resp. 31–32; Sur-reply 1–2.

With respect to the first prong of the *Advanced Bionics* test (whether substantially the same art was previously presented to the Office), Patent Owner asserts that references related to and substantively the same as Ingle were before the Examiner. *See* Prelim. Resp. 31–32. Patent Owner further argues that Petitioner’s reliance on Hasei in support of Ground I is merely cumulative of Ingle. *Id.* at 32. Patent Owner argues that Ingle already discloses “using a conventional process” to create an OLED, and Hasei merely describes one such process. *Id.*

In its Reply, Petitioner argues that “when considering Ingle, the examiner would not know of Hasei’s droplet discharge method.” Reply 1.

In its Sur-reply, Patent Owner argues that Ingle teaches that an electronic component can be produced “using a conventional process” and

that “the conventional process described in both Ingle and Hasei is the photolithography process.” Sur-reply 1.

We must grant or deny institution on all of Petitioner’s grounds. *See* 37 C.F.R. § 42.108(a) (“When instituting . . . review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (interpreting the relevant statutory provisions to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

In evaluating requests for discretionary denial, the Board must determine whether § 325(d) is sufficiently implicated that its statutory purpose would be undermined by instituting on both grounds. *See SAS Q&As*, D1 (USPTO June 5, 2018)<sup>6</sup> (cited with approval in *Boehringer Ingelheim Animal Health Usa Inc., v. Kansas State University Research Foundation*, PGR2022-00021, Paper 11 (Feb. 24, 2023) (Director Review) at 7–8 n. 3). “At bottom, this [§ 325(d)] framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Advanced Bionics* at 9.

Here, § 325(d) is not sufficiently implicated that its statutory purpose would be undermined. While prior art similar to one reference presently relied upon in Ground I was considered during prosecution, Patent Owner does not contend that the asserted references in Grounds II or III are the same or cumulative of art that was considered during prosecution. Because it

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<sup>6</sup> [www.uspto.gov/sites/default/files/documents/sas\\_qas\\_20180605.pdf](https://www.uspto.gov/sites/default/files/documents/sas_qas_20180605.pdf)

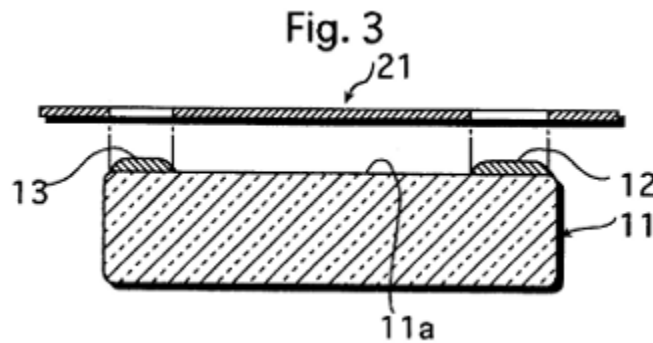
is undisputed that two of the three asserted grounds do not implicate § 325(d), on balance, we determine that the Petition does not raise the same or substantially the same prior art previously presented to the Office. *See Asetek Danmark a/s v. Coolit Sys., Inc.*, No. IPR2020-00825, Paper 12 at 15 (PTAB Oct. 13, 2020) (Decision on Institution) (determining to institute where, “viewing the Petition as a whole, we find that only two of the six asserted grounds . . . implicate § 325(d).”). As a result, we decline to exercise our discretion under section 325(d) to deny institution.

*C. Reasonable Likelihood of Prevailing*

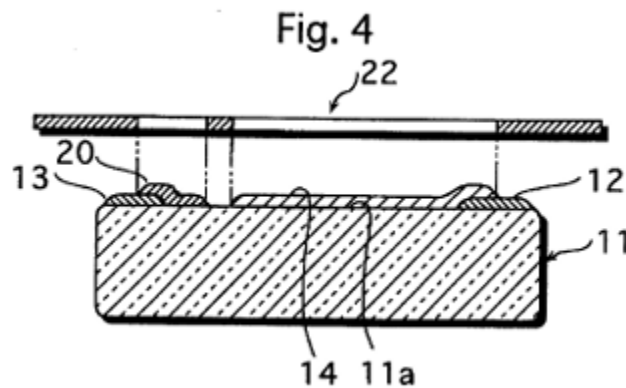
Although we have closely reviewed each asserted ground, in evaluating Petitioner’s reasonable likelihood of prevailing, we focus our discussion on Ground II, which concerns the asserted unpatentability of claims 1, 2, 8, and 16 over Hanamura. Pet. 50–59. In particular, we focus our discussion on the patentability of claim 16.

*1. Hanamura*

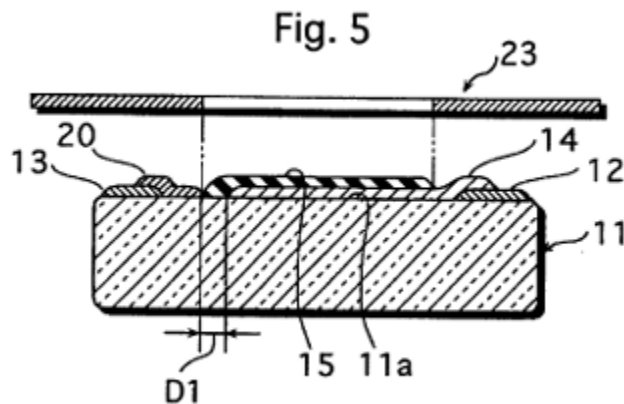
Hanamura is titled “Chip Type Thick Film Capacitor and Method of Making the Same.” Ex. 1008, (code 54). Hanamura teaches that “[a] chip type thick film capacitor has been found advantageous in that it can be manufactured relatively easily by using a screen-printing method. Therefore, the chip type capacitor is increasingly used in various applications.” *Id.* at 1:15–18. Hanamura teaches an improved method of manufacturing chip type thick film capacitors. *Id.* at 2:42–44. Figures 3, 4, and 5 of Hanamura, reproduced below, depict successive steps in the manufacture of a chip type thick film capacitor. *Id.* at 4:10–11.



Hanamura teaches that Figure 3 depicts “a first lead electrode 12 and a second lead electrode 13 are formed simultaneously on the head surface 11a of an insulating chip 11 by printing an electrically conductive paste with the use of a first screen 21.” *Id.* at 5:25–28.



Hanamura teaches that “[t]hen, as shown in FIG. 4, a first capacitor electrode 14 and an auxiliary electrode 20 are formed simultaneously on the head surface 11a of the chip 11 by printing an electrically conductive paste with the use of a second screen 22.” *Id.* at 5:29–32.



Hanamura further teaches that “[t]hen, as shown in FIG. 5, a dielectric layer 15 is formed on the first capacitor electrode 14 by printing a pasty insulating or dielectric material with the use of a third screen 23.” *Id.* at 5:33–36.

## 2. Claim 16

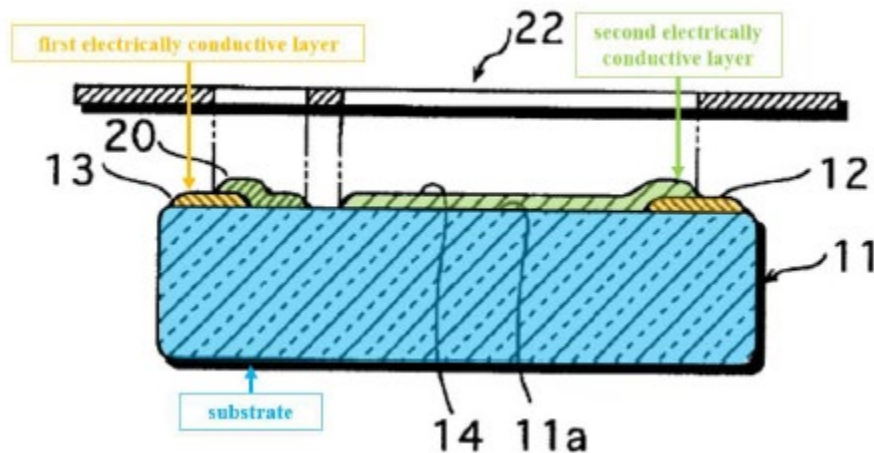
Claim 16 is directed to a passive electronic component. Ex. 1001, 22:27–43. Petitioner asserts that each limitation of claim 16 is taught by Hanamura. Pet. 58–59.

### a. Petitioner’s Arguments

Petitioner relies on Hanamura’s disclosure of “a first lead electrode 12 and a second lead electrode 13 . . . formed simultaneously on the head surface 11a of an insulating chip 11” as teaching the “first electrically conductive layer on a substrate” required by claim element 16(a). Pet. 51 (quoting Ex. 1008, 5:25–28), 58 (referring to claim 1 analysis).

Petitioner relies on Hanamura’s teaching that “a first capacitor electrode 14 and an auxiliary electrode 20 are formed simultaneously on the head surface 11a of the chip 11 by printing an electrically conductive paste” as satisfying claim element 16(b)’s required “second electrically conductive

layer on the first electrically conductive layer.” *Id.* at 52 (quoting Ex. 1008, 5:29–32), 58. The structures relied upon as teaching the first and second conductive layers are depicted in the annotated figure reproduced below.



Pet. 52. The figure above is an annotated version of Hanamura’s Figure 4.

Petitioner asserts that first electrode 12 and second electrode 13 (both in yellow) teach the claimed “first electrically conductive layer on a substrate” (claim element 16(a)). *Id.* at 51, 58. Petitioner further asserts that first capacitor electrode 14 and auxiliary electrode 20 (both in green) teach the claimed “second electrically conductive layer on the first electrically conductive layer.” *Id.* at 52, 58.

Petitioner additionally argues that Hanamura’s teaching to form first capacitor electrode 14 and auxiliary electrode 20 spaced as shown in the annotated figure below teaches “a first trench in the first and second electrically conductive layers, wherein the first trench separates a first contact region from a second contact region” as required by claim element 16(c). Pet. 59. The annotated figure below shows Petitioner’s asserted “first trench” labeled in red.



Patent Owner argues that the '492 patent describes the conductive layers “as distinct planar layers.” Prelim. Resp. 34. Further, Patent Owner refers us to the '492 patent’s teaching that the layers can be applied “for example in a planar fashion.” *Id.* at 35 (quoting Ex. 1001, 11:2–4, 11:24–26).

Patent Owner argues that the cited structures of Hanamura have only a slight overlap and that all four electrodes occupy a single horizontal plane. *Id.* at 35–36. Patent Owner further argues that Hanamura does not use the word “layers” to describe the relied upon electrode structures although it uses such term in other contexts. *Id.* at 36. Patent Owner further asserts that neither Petitioner nor its expert sufficiently addresses the differences between the '492 patent and Hanamura. *Id.* at 36–37.

*ii. Analysis – Conductive Layers*

At this stage and on this record, Petitioner’s assertions regarding the structures indicated to teach the first and second electrically conductive layers are sufficient to satisfy the reasonable likelihood standard. Although the parties have offered briefing regarding claim construction of the term “forming a trench,” the parties have not formally addressed construction of the term “electrically conductive layer.” Patent Owner’s arguments significantly implicate construction of this term.

On the present record, we determine that there is a reasonable likelihood that lead electrodes 12 and 13 teach a first conductive layer and that first capacitor electrode 14 in conjunction with auxiliary electrode 20 teaches the claimed second conductive layer.

*iii. A First Trench in the First and Second Electrically Conductive Layers*

Patent Owner further argues that Hanamura fails to disclose “a first trench *in* the first and second electrically conductive layers.” Prelim. Resp. 37 (emphasis in original); *id.* at 37–39.

Patent Owner argues that Hanamura merely teaches a “predetermined spacing” between electrodes 14 and 20. *Id.* at 37. Patent Owner further argues that “Petitioner’s analysis at most indicates that a ‘trench’ is in the second electrically conductive layer (mapped to electrodes 20 and 14). There is no explanation why the trench is also *in* the first electrically conductive layer (mapped to electrodes 12 and 13).” *Id.* at 38 (emphasis in original). Patent Owner further argues that neither Petitioner nor its expert makes any effort to explain how the area identified as a trench exists “in” both layers. *Id.* at 38–39.

*iv. Analysis – Trench in the Conductive Layers*

The parties do not dispute that there is a gap between lead electrodes 12 and 13 (asserted first conductive layer) and between first capacitor electrode 14 and auxiliary electrode 20 (asserted second conductive layer). Similar to the parties’ dispute regarding first and second conductive layers, Patent Owner’s second argument implicates the construction of the term “electrically conductive layer.” The parties have not formally addressed construction of such term.

On the present record, we determine that there is a reasonable likelihood that Hanamura teaches a trench in the first and second electrically conductive layers.

### III. CONCLUSION

After considering the evidence and arguments presented in the current record, we determine that Petitioner has demonstrated a reasonable likelihood of success in proving that at least one of the challenged claims of the '492 patent is unpatentable. We therefore institute trial on all challenged claims and grounds raised in the Petition. *See* 37 C.F.R. § 42.108(a); *see also SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018) (noting that the language of section § 314(b) “indicates a binary choice— either institute review or don’t”).

At this stage of the proceeding, we have not made a final determination as to the patentability of any challenged claim or as to the construction of any claim term. Any final determination will be based on the record developed during trial. We place Patent Owner on express notice that any argument not asserted in a timely-filed Response to the Petition, or in another manner permitted during trial, will be deemed waived or forfeited, even if that argument was presented in the Preliminary Response.

### IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1– 3, 5, 6, 8–11, and 16 of the '492 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '492 patent shall commence on

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the entry date of this Decision, and notice is hereby given of the institution of a trial.

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