

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., AND
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner

v.

KEYLESS LICENSING LLC,
Patent Owner

Case IPR2025-00528
U.S. Patent No. 11,503,144

**PATENT OWNER PRELIMINARY RESPONSE
UNDER 37 C.F.R. § 42.107(a)**

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I. INTRODUCTION 1

II. THE '144 PATENT 3

 A. The '144 patent describes a novel way of entering data on to a handheld device. 3

 B. Prosecution History..... 5

 C. Person of Ordinary Skill in the Art (POSA) 7

 D. Claim Construction 7

III. OVERVIEW OF THE ART APPLIED IN THE PETITION..... 7

 A. Bast..... 7

 B. Wedel 9

IV. PETITIONER FAILS TO MEET ITS BURDEN TO SHOW THAT BAST OR WEDEL QUALIFY AS PRIOR ART. 10

 A. Petitioner’s bald assertions do not meet its burden to show the '144 patent is not entitled to an earlier priority date even though it claims priority to earlier provisional applications.....10

 B. The Office previously reviewed and granted the priority claim of the '144 patent.14

V. BAST IN VIEW OF WEDEL DOES NOT DISCLOSE THAT “SAID DISPLAY UNIT PRACTICALLY COVERS THE ENTIRE FRONT SURFACE OF SAID HOUSING.” 15

 A. Bast’s statements to make the display “as large as possible” and to “use[] all the available space” on the housing does not arrive at a display that “practically covers the entire front surface of the housing” as claimed.17

 B. The combination of Bast and Wedel does not disclose expanding the size of a display or arrive at a display that practically covers the entire front surface of the housing.....18

 C. Petitioner fails to address all components on the Bast or Wedel devices preventing the screen from practically covering the entire front surface as claimed.21

D. The '144 patent discloses alternative placements of the microphone that allow the display unit to practically cover the entire front surface of the housing—Bast and Wedel do not.25

VI. PETITIONER IMPROPERLY RELIES ON MERE SILENCE IN BAST AND FAILS TO MEET ITS BURDEN TO SHOW THAT “NONE OF SAID COMPONENTS [OF THE DEVICE] NOTICEABLY EXTEND[] OUT FROM SAID HOUSING” AS CLAIMED..... 26

VII. JAMBHEKAR AND BENOIT DO NOT CURE THE DEFICIENCIES OF BAST AND WEDEL..... 29

VIII. IF THE BOARD FINDS THAT PETITIONER FAILS TO MEET ITS BURDEN FOR LESS THAN ALL OF THE CHALLENGED CLAIMS AND/OR PROPOSED GROUNDS, THE BOARD SHOULD DENY INSTITUTION TO CONSERVE RESOURCES. 30

IX. THE BOARD SHOULD DENY THIS PETITION BECAUSE PETITIONER FAILS TO SHOW ANY CAUSE FOR THIS SECOND PARALLEL PETITION CHALLENGING THE '144 PATENT..... 32

A. Petitioner’s alleged reasons for the parallel petitions do not constitute any cause recognized by the Board for multiple petitions.33

B. The Board panel has authority to deny a parallel petition challenging the same patent without cause.36

X. CONCLUSION 37

PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Amended Docket Control Order [43], <i>Keyless Licensing LLC v. Samsung Electronics America, Inc.</i> , Case No. 2:24-cv-00464 (E.D. Tex. Jan. 10, 2025)
2002	Federal Court Management Statistics (December 31, 2024)
2003	Defendants' Invalidation Contentions, <i>Keyless Licensing LLC v. Samsung Electronics America, Inc.</i> , Case No. 2:24-cv-00464 (E.D. Tex. Jan. 29, 2025)
2004	Defendants' Subject Matter Eligibility Contentions, <i>Keyless Licensing LLC v. Samsung Electronics America, Inc.</i> , Case No. 2:24-cv-00464 (E.D. Tex. Jan. 29, 2025)
2005	Complaint [1], <i>Keyless Licensing LLC v. Samsung Electronics America, Inc.</i> , No. 2:24-cv-00464 (E.D. Tex. June 20, 2024),
2006	Order Denying Motion to Stay [52], <i>Keyless Licensing LLC v. Samsung Electronics America, Inc.</i> , No. 2:24-cv-00464 (E.D. Tex. May 30, 2025)
2007	Patent Trial and Appeal Board Appeal Statistics: April 2025, USPTO (Apr. 30, 2025), https://www.uspto.gov/sites/default/files/documents/fy2025_appeal_stats_april2025.pdf
2008	FAQs for Interim Processes for PTAB Workload Management, USPTO (Mar. 26, 2025), https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management
2009	Plaintiff's Opposition to Samsung's Motion to Stay Pending <i>Inter Partes</i> Review [47], <i>Keyless Licensing LLC v. Samsung Electronics America, Inc.</i> , No. 2:24-cv-00464 (E.D. Tex. May 15, 2025)
2010	<i>Left Intentionally Blank</i>

Exhibit No.	Description
2011	<i>Left Intentionally Blank</i>
2012	<i>Left Intentionally Blank</i>
2013	U.S. Patent No. 6,035,180 to Kubes et al.

I. INTRODUCTION

The Board should deny institution of *inter partes* review because Petitioner has not met its burden to show a reasonable likelihood that any of claims 1-20 (the “challenged claims”) of U.S. Patent No. 11,503,144 (“the ’144 patent”) are unpatentable. The Petition presents four invalidity grounds, none of which presents a compelling reason demonstrating that the challenged claims of the ’144 patent are unpatentable.

First, the Petition is fundamentally flawed because Petitioner fails to meet its burden to show that Bast or Wedel qualify as prior art. Petitioner argues that the earliest priority date of the ’144 patent is March 11, 2004 for claims 1-14, and is January 17, 2017 for claims 3, 4, 12, 13, and 15-20. Pet., 16-20. Petitioner relies on these priority dates to challenge the claims based on Bast and Wedel. Pet., 23. However, Petitioner’s cursory argument that the provisional applications of the ’144 patent allegedly lack written description support is deficient. Petitioner’s scant analysis fails to meet Petitioner’s burden to establish that the ’144 patent is not entitled to a priority date that pre-dates Bast or Wedel. *See* 35 U.S.C. § 316(e). Moreover, the priority claim of the ’144 patent to U.S. Provisional Application No. 60/463,844, filed April 18, 2003, was reviewed and granted during prosecution by the Office. EX1004, 566-568, 574, 610-613. Because Petitioner fails to

demonstrate that Bast or Wedel qualify as prior art, all of Petitioner's grounds are facially deficient. *See* Pet., 23.

Second, Petitioner relies on Bast and Wedel in every ground of the Petition. But Bast and Wedel, alone or in combination, do not disclose a display that practically covers the entire front surface of the housing. Petitioner alleges that both Bast alone and Bast in view of Wedel disclose this feature. Bast alone is deficient because although Bast discloses that the “screen uses all the space available,” Bast includes components above and below the screen preventing it from practically covering the entire front surface. Petitioner's modification of Bast in view of Wedel (and tacit acknowledgement that Bast alone fails to disclose the recited feature) is also deficient because the proposed modifications go beyond what the references would have taught a POSA—changing the size of the display and imagining a new cross-sectional layout of a mobile device not disclosed by either applied reference. And Petitioner's modification does not address all features on the device—at least the microphone—that prevent a display from practically covering the entire front surface of the housing as claimed.

Further, Petitioner improperly relies on mere silence in Bast's brief specification to allege that Bast discloses that none of the components of the device noticeably extend out from the housing. However, for recited negative limitations,

mere silence in a reference is legally insufficient to demonstrate that the claimed feature is not present.

None of the secondary references, Benoit and Jambhekar, cure the deficiencies of Bast and Wedel, nor does Petitioner allege that they do.

For at least these reasons, Petitioner has not met—and cannot meet—its burden to show a reasonable likelihood that the challenged claims are unpatentable. Proceeding with such a facially flawed Petition would be an inefficient use of Board resources. Accordingly, the Board should deny institution.

II. THE '144 PATENT

A. The '144 patent describes a novel way of entering data on to a handheld device.

Before the '144 patent's invention, existing systems for data input typically used multi-press systems on a standard telephonic numeric keypad, miniaturized QWERTY keypads, and/or voice recognition. EX1001, 1:31-50. The '144 patent improved on these previous systems by providing data entry systems that are fast, reliable, and efficient, while also reducing—or removing completely—physical keys on the device used to input data. *Id.*, 1:67-2:3, 7:25-31, 8:65-9:2, 98:2-8, FIG. 68a.

For example, the '144 patent describes implementing the data entry system on a device using as little as four keys for all alphabetical and numerical characters of the language. *Id.*, 91:40-45, FIG. 65a. Additionally, “instead of physical keys

(e.g. 6501-6506), virtual (e.g. soft) keys may be defined on a display unit” of the device. *Id.*, 91:49-52. As shown in Figure 68a, the disclosed data entry system allows the electronic device to include a large display that “practically covers the entire front surface of said housing.” *Id.*, claim 1; *see also id.*, claims 9, claim 15, 98:2-6.

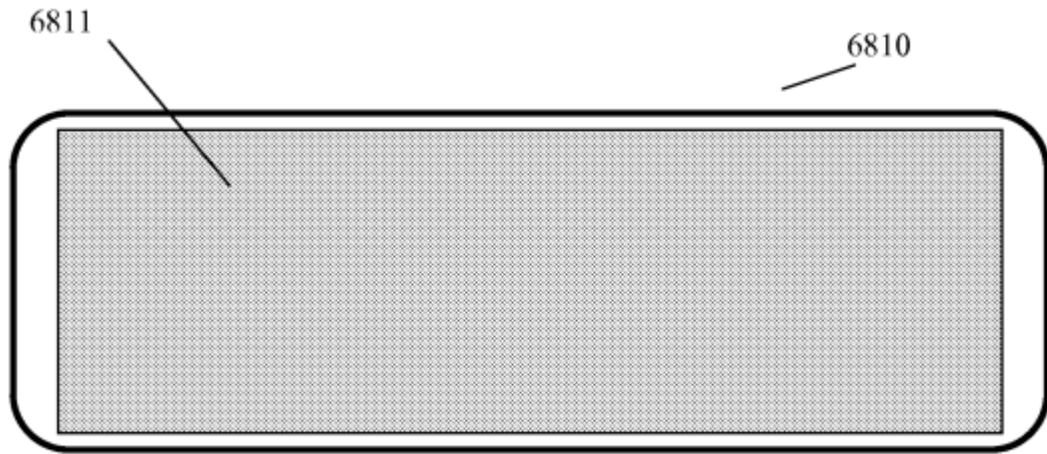


Fig. 68a

EX1001, FIG. 68a.

The '144 patent further describes using sweeping actions to perform multiple functions on the electronic device. The sweeping actions can be used to enter words by sweeping a finger or pen over one or more zones on the device that correspond to certain characters. *Id.*, 80:52-81:61, FIGS. 56a and 56b.

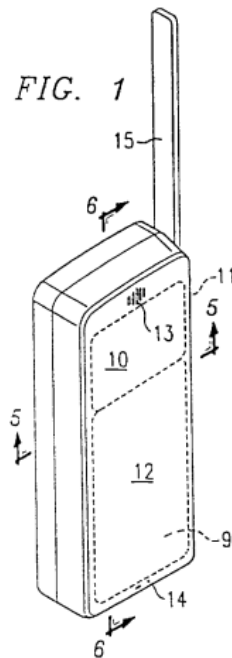
Furthermore, the '144 patent describes mirroring a plurality of applications and icons from a computer onto a display of a handheld device, and navigating to

different displayed icons through an input action on the device. *Id.*, 31:4-19, FIG.

19.

B. Prosecution History

The '144 patent was thoroughly examined—the Examiner issued three Office Actions. EX1004, 330-337, 366-378, 534-549. In the only Office Action that cited references with a priority date before the '144 patent, the Office rejected claim 1 as allegedly being anticipated by US 6,035,180 to Kubes. *Id.*, 332-333. Kubes is similar to the references that are asserted in all of Petitioner's grounds. For example, Kubes includes display areas 9, 10, a "larger aperture 13" for a speaker above the display, and a "smaller aperture 14" for a microphone below the display. EX2013, 4:30-35, 7:50-8:41, FIG. 1 (reproduced below).



EX2013, FIG. 1.

Patent Owner successfully amended independent claim 1 to overcome the rejection to Kubes, and the Office subsequently allowed the application. EX1004, 357-363, 578-584.

Petitioner posits that the claims of the '144 patent are not entitled to the earliest claimed priority date (*see* Pet., 14-20), but this issue was reviewed and resolved by the Office during prosecution. Applicant filed four petitions to accept an unintentionally delayed priority claim under 35 U.S.C. 119(e) for the benefit of a prior-filed provisional application under 37 C.F.R. 1.78(c). EX1004, 397-413, 435-446, 470-533, 555-557. With each petition, Applicant provided explicit detail of the filing history and the full priority chain of applications back to earliest filed U.S. Provisional Application No. 60/463,844 (the '844 application), filed on April 18, 2003. *Id.*

After review, the Office acknowledged and granted the priority claim to the '844 application and its April 18, 2003 filing date. *Id.*, 566-568. The Examiner consequently withdrew all prior art rejections that cited references after this priority date and subsequently allowed the claims. *Id.*, 574 (the inventor, Mr. Ghassabian's, arguments that the Office Action should be withdrawn in light of the priority date accorded to the '844 application); 578-584 (Notice of Allowance issued in response to the remarks). Furthermore, the Office mailed an updated filing receipt confirming the earliest claimed priority date as April 18, 2003. *Id.*,

610-613.

C. Person of Ordinary Skill in the Art (POSA)

For purposes of this Preliminary Response, Patent Owner applies Petitioner’s level of skill for a person of ordinary skill in the art (POSA). Pet., 23-24. Patent Owner reserves the right to contest Petitioner’s level of skill for a POSA should trial be instituted.

D. Claim Construction

For purposes of this Preliminary Response, Patent Owner agrees the *Phillips* standard applies. See Pet., 21. No express construction is required for the Board to deny institution. See *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms...that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). Patent Owner reserves the right to contest Petitioner’s implicit or explicit constructions should trial be instituted.

III. OVERVIEW OF THE ART APPLIED IN THE PETITION

A. Bast

Bast is directed to mobile device with a screen that has a portrait mode and a landscape mode and can detect an inclination of the device to switch between each mode. EX1022, ¶[0001]. Bast’s short specification—just over twenty paragraphs—only describes the features that are relevant to the orientation detecting system. *Id.*,

¶¶[0010], [0013], [0016], FIGS. 1 and 6. Bast discloses a mobile telephone with a front face that contains at least a screen 2, a microphone 3, and a loudspeaker 4.

Id., ¶¶[0010], FIG. 1. Bast discloses that the screen is “as large as possible” and that “the screen uses all the space available,” as constrained by its other components, of course. *Id.*, ¶¶[0003], [0010]. And as shown in Bast’s Figure 1 (reproduced below), the screen is constrained by at least the speaker and microphone on the front surface of the device.

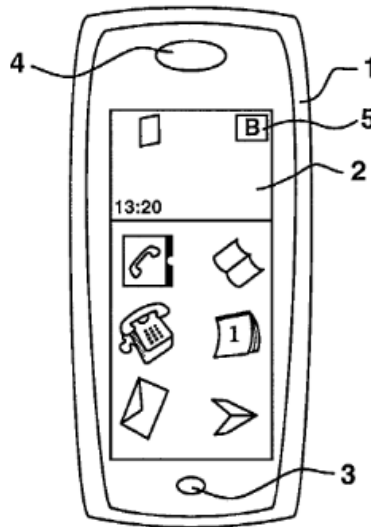


Figure 1

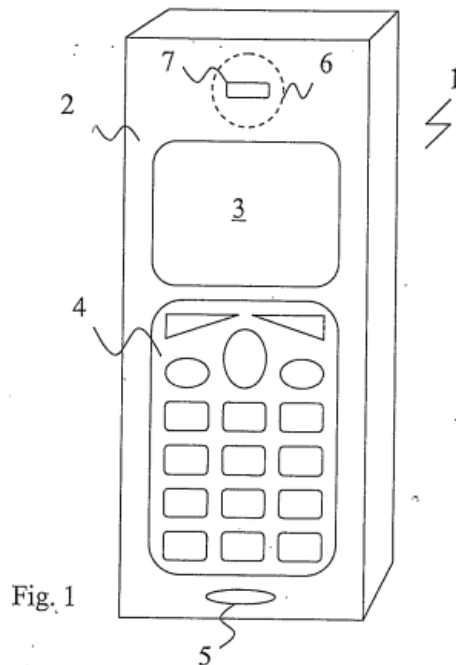
EX1022, FIG. 1.

Bast’s brief specification only discusses eight components of the device: case 1, screen 2, microphone 3, speaker 4, circuit 6 for detecting orientation, central unit 7, screen controller 8, and accelerometers 9a, 9b. *See* EX1022, ¶¶[0010], [0013], [0016], FIGS. 1 and 6. Thus, Bast is narrowly drafted, focusing

only on the orientation system; it is silent regarding any other components (e.g. a battery, a CPU, physical buttons/keys, an antenna, a power/data socket, etc.) that were commonly found on portable electronic devices at the time.

B. Wedel

Wedel discusses space requirements in a mobile device, and in particular the space needed for an antenna and speaker. EX1023, 2:15-21. Wedel discusses that the speaker and antenna in a mobile device are generally placed above the display. *Id.* Wedel makes a cursory mention that the speaker can be placed behind the display, but this would “increase the thickness of the terminal.” *Id.*, 2:23-25. As shown in Wedel’s Figure 1, microphone 5 is positioned below the display.



EX1023, FIG. 1.

Wedel also discusses modifications to the device that are narrowly focused

on combining the antenna and speaker into a low profile arrangement to save space. *Id.*, 10:14-23, 10:29-11:9, FIGS. 7-9. Wedel discusses no other modifications to the other components, such as the display or the microphone. *See generally, id.*

IV. PETITIONER FAILS TO MEET ITS BURDEN TO SHOW THAT BAST OR WEDEL QUALIFY AS PRIOR ART.

Petitioner has not adequately demonstrated that Bast or Wedel qualify as prior art. This threshold flaw renders all Petition grounds deficient.

Petitioner alleges that (1) claims 1-14 of the '144 patent are not entitled to a priority date before March 11, 2004, and (2) claims 3, 4, 12, 13, and 15-20 are not entitled to a priority date before January 22, 2017, because the prior provisional applications allegedly lack written description support for features recited in the independent claims. Pet., 16-20. However, Petitioner's bald assertions do not meet its burden to show the '144 patent is not entitled to an earlier priority date even though it claims priority to earlier provisional applications, and the Office previously reviewed and granted the priority claim of '144 Patent.

A. Petitioner's bald assertions do not meet its burden to show the '144 patent is not entitled to an earlier priority date even though it claims priority to earlier provisional applications.

The Board requires that "the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence." 35 U.S.C. § 316(e); *see also Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375,

1378 (Fed. Cir. 2015) (in an *inter partes* review, the burden of persuasion is on the petitioner to prove unpatentability by a preponderance of the evidence). Petitioner fails to demonstrate that Bast or Wedel qualify as prior art.

For Bast and Wedel to qualify as prior art, *Petitioner must establish* that the '144 patent is *not* entitled to priority earlier than Bast's earliest possible priority date of August 20, 2003 under 35 U.S.C. § 102(a) or Wedel's earliest possible priority date of February 4, 2004 under 35 U.S.C. § 102(e). *See* 35 U.S.C. § 102. *See Dynamic Drinkware*, 800 F.3d at 1378 (the burden of persuasion to prove unpatentability never shifts to the patentee). But Petitioner fails to do so. On its face, the '144 patent claims priority two non-provisional applications, a PCT application, and a number of provisional applications. EX1001, (60). Notably, the '144 patent claims priority to fourteen provisional applications spanning from April 18, 2003 to March 26, 2004, at least 12 of which pre-date Wedel, and 7 that pre-date Bast. *Id.* Petitioner, however, argues that the earliest priority date of the '144 patent is March 11, 2004 for claims 1-14 and January 22, 2017 for claims 3, 4, 12, 13, and 15-20. Pet., 16-20. Specifically, Petitioner alleges that “[t]he earliest provisional application—No. 60/463,844—does not provide written description support for claims 1-14” for the claimed element “wherein said mobile phone device does not include a physical key on the front surface.” Pet., 16. Further, Petitioner alleges that “[n]either the '144 patent's specification nor any of its

claimed priority applications (or the prosecution history of these priority applications) contain any support for . . . claims 3, 4, 12, 13, and 15-20” for the claimed element “wherein upon identifying an input corresponding to a sweeping action provided on a touch sensitive surface of said device, said processor displays plurality of other icons corresponding to plurality of other applications on said display unit.” *Id.*, 18-19.

However, Petitioner’s cursory analysis of the prosecution history and the provisional applications supporting the ’144 patent is deficient. Petitioner provides no analysis of the earliest possible provisional application (EX1007) and fails to evaluate any other relevant provisional applications that pre-date either Bast or Wedel outside of a conclusory statement. *See* Pet., 16 (“The earliest provisional application—No. 60/463,844—does not provide written description support for claims 1-14. Ex. 1007. The next eleven provisional applications also do not. *See* Exs. 1008-1018.”); *see also* Pet., 18-19 (“Neither the ’144 patent’s specification nor any of its claimed priority applications (or the prosecution history of these priority applications) contain any support for the limitations of claims 3, 4, 12, 13, and 15-20”).

Indeed, conveniently, for claims 1-14 Petitioner only analyzes the 12th provisional application (No. 60/536,564), filed 36 days after Wedel’s earliest possible priority date; but Petitioner does not provide the same review of the 11th

provisional application (No. 60/536,564) that was filed 21 days *before* Wedel's earliest possible priority date. Moreover, Petitioner fails to explain why the *six other priority applications that pre-date Bast* (filed on April 30, 2003; May 5, 2003; May 30, 2003; June 3, 2003; June 26, 2003; and June 27, 2003) and *five additional priority applications that pre-date Wedel* (filed on August 20, 2003; September 5, 2003; September 19, 2003; October 14, 2003; and January 14, 2004) also lack written description support for the challenged claims. *See* Pet., 16-20.

In view of these deficiencies, Petitioner has not produced “additional evidence and presenting persuasive argument” to shift “the burden of production” (i.e., burden of going forward with evidence showing written description support) to Patent Owner for at least the other relevant 11 provisional applications filed before Wedel and 6 provisional applications before Bast. *See Dynamic Drinkware*, 800 F.3d at 1379 (“[T]he burden of production, or the burden of going forward with evidence, is a shifting burden . . . [that] may entail ‘producing additional evidence and presenting persuasive argument based on new evidence or evidence already of record.’”) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 543 F.3d 1316, 1327 (Fed. Cir. 2008)). Petitioner’s cursory analysis of the ’144 patent’s priority date, which fails to even account for numerous other provisional applications, is facially insufficient to establish Bast or Wedel are prior art. *See* 35 U.S.C. § 316(e) (“[T]he petitioner shall have the burden of proving a proposition

of unpatentability by a preponderance of the evidence.”); *see also Dynamic Drinkware*, 800 F.3d at 1375 (petitioner has burden of persuasion to prove unpatentability by preponderance of the evidence). Accordingly, Petitioner has not met its burden of showing there is a reasonable likelihood it would prevail with respect to Bast and Wedel’s application to the challenged claims. *See* 35 U.S.C. § 314(a). Nor will Petitioner be able to meet its burden of establishing a lack of written description support by a preponderance of the evidence if the Board institutes trial. *See* 35 U.S.C. § 316(e). And by failing to analyze at least eleven other provisional applications, Petitioner improperly places the burden on Patent Owner and/or the Board to fill in Petitioner’s gaps regarding written description support for the ’144 patent claims in the relevant provisional applications. *See, e.g., Dynamic Drinkware*, 800 F.3d at 1375.

B. The Office previously reviewed and granted the priority claim of the ’144 patent.

Further still, the priority date of the ’144 patent was extensively reviewed and resolved by the Office during prosecution. Applicant filed four petitions with the Office to accept an unintentionally delayed claim under 35 U.S.C. 119(e) for the benefit of prior-filed provisional applications under 37 C.F.R. 1.78(c). EX1004, 397-413, 435-446, 470-533, 555-557. With each petition, Applicant provided explicit detail of the filing history and the full priority chain of applications back to the first-filed U.S. Provisional Application No. 60/463,844 (the ’844 application),

filed on April 18, 2003. *Id.* The Office acknowledged and granted Applicant's priority claim to the '844 application. *Id.*, 566-568. The Office mailed an updated filing receipt confirming the earliest claimed priority date as April 18, 2003. *Id.*, 610-613.

* * *

Petitioner's conclusory assertions regarding the '144 patent's priority date are insufficient to cast its priority into question. The Board's resources would be better spent elsewhere, rather than rehashing issues that were resolved during prosecution and addressing questions caused by Petitioner's choice to base its challenges on references that indisputably pre-date the priority date of the '144 patent. *See* Interim Processes for PTAB Workload Management Memorandum, 3 (March 26, 2025) (the "Interim Processes Memo").

Accordingly, because Petitioner's priority date assessment is insufficient to establish that Bast or Wedel qualify as prior art, all of the Petition's grounds are deficient. *See* Pet., 23. The Board should therefore deny institution.

V. BAST IN VIEW OF WEDEL DOES NOT DISCLOSE THAT "SAID DISPLAY UNIT PRACTICALLY COVERS THE ENTIRE FRONT SURFACE OF SAID HOUSING."

Independent claim 1 recites that "said display unit practically covers the entire front surface of said housing." EX1001, claim 1. Independent claim 9 similarly recites that "said display unit, practically occup[ies] the entire front

surface of the mobile phone.” *Id.*, claim 9. Likewise, independent claim 15 recites that “said display unit occup[ies] practically the entire surface of the front surface of said device.” *Id.*, claim 15. Petitioner relies on Bast alone, and Bast in view of Wedel as allegedly disclosing this feature in every Ground of the Petition. Pet., 44-46, 66, 84, 87-89. But the references, alone or in combination, do not.

A *prima facie* case of obviousness requires a suggestion of all limitations in a claim. See *CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Gulack*, 703 F.2d 1381, 1385 n. 9 (Fed. Cir. 1983); *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)). But Petitioner fails to show that Bast and Wedel, alone or in combination, disclose or suggest a display that practically covers the entire front surface of the housing. Indeed, Petitioner fails to establish a *prima facie* case of obviousness for at least four reasons: (1) Bast alone includes features that occupy real estate on the front surface preventing Bast’s screen from practically covering the entire front surface; (2) neither Bast nor Wedel discuss expanding the size of a display; (3) the proposed modification of Bast in view of Wedel only addresses a top portion of the display’s coverage of the front surface and ignores the bottom portion; and (4) unlike the ’144 patent, Bast and Wedel do not discuss alternative placements of the microphone that would allow the display unit to practically cover the entire front surface of the housing. Thus, the Petition is facially flawed and the Board should deny institution.

A. Bast’s statements to make the display “as large as possible” and to “use[] all the available space” on the housing does not arrive at a display that “practically covers the entire front surface of the housing” as claimed.

Petitioner relies on Bast’s statements that the display area is “as large as possible” and “use[s] all the available space” to conclude that Bast “has a size much larger than many earlier phones and is made to practically use all the possibly available real estate on the front surface of the housing.” Pet., 45 (*citing* EX1022, ¶¶[0010], [0003]). But these quotes from Bast actually expose Bast’s deficiency. Making the display “as large *as possible*” and using “all the *available* space” on the front surface is merely relative to what is “possible” and “available” for Bast’s device; yet it still falls short of a display that “practically covers the entire front surface of said housing” as claimed.

Bast’s front face contains (at least) a screen 2 that is constrained by a microphone 3 disposed below the screen and a loudspeaker 4 disposed above the screen. EX1022, ¶ [0010], FIG. 1. Both the speaker and the microphone occupy real estate on Bast’s front surface preventing Bast’s screen from practically covering the entire front surface. Thus, while Bast states that the screen is “as large as possible” and that “the screen uses all the space available,” *id.*, ¶¶ [0003], [0010], Bast’s screen does not practically cover the entire front surface of the housing, as claimed. Bast’s screen is bound and limited by the other components on its front surface that prevent the claimed coverage.

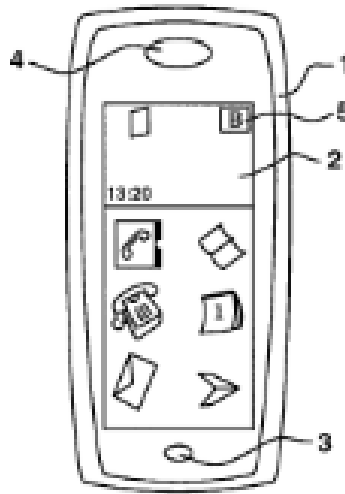


Figure 1

EX1022, FIG. 1.

Petitioner tacitly acknowledges that Bast is deficient, further modifying Bast in view of Wedel in an attempt to expand Bast's screen. Pet. 45-46. However, as discussed below, Petitioner's proposed modification falls short of providing a display that practically covers the entire front surface as claimed.

B. The combination of Bast and Wedel does not disclose expanding the size of a display or arrive at a display that practically covers the entire front surface of the housing.

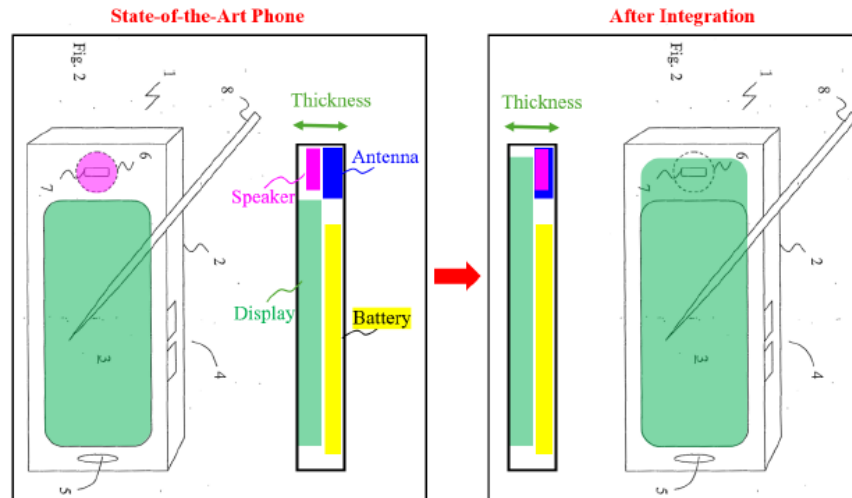
Attempting to cure Bast's clear deficiencies, Petitioner purports that modifying Bast to have Wedel's speaker and antenna configuration would make Bast's screen "even bigger." Pet., 46. Petitioner alleges that it would have been obvious "to expand the screen of Bast consistent with figure 1 to provide even more viewing area for content and to increase the touchable area for data input (e.g., by selecting icons or typing on a virtual keyboard)." Pet., 45-46. However,

Wedel only discloses a modification to its speaker and antenna to reduce overall space requirements of both components in a mobile device. Wedel does not suggest this modification would allow for increasing the size of the display, as Petitioner suggests.

Wedel discusses space requirements in a mobile device, and in particular the space required by an antenna and speaker. EX1023, 2:15-21. Wedel explains that the speaker and antenna in a mobile device are generally placed above the display. *Id.* Wedel further explains several space saving solutions that combine the antenna and speaker into a low profile configuration. *Id.*, 10:14-23, 10:29-11:9, FIGS. 7-9. However, Wedel makes no mention whatsoever of modifying the display. Other than stating that speakers are generally placed above the display, Wedel makes only one other cursory mention of the position of the display relative to other components, suggesting that “[p]lacing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space.” *Id.*, 2:23-25.

Petitioner’s modification of Bast goes beyond what either Bast or Wedel disclose. Petitioner fabricates a new Wedel configuration—creating its own side cross-section view of a mobile device—and tying this to an annotation of Wedel’s Figure 2. Pet., 31, 46 (reproduced below). Petitioner posits that Wedel’s antenna-speaker configuration could be positioned behind the display “allowing the

touchscreen to be made bigger without adding to the thickness of the phone.” Pet., 31 (*citing* EX1023, Abstract, 1:26-28, 2:21-25, 13:5-8).



EX1023, FIG. 2 (Petitioner’s annotations). Pet., 31, 46.

Petitioner’s new side cross-sectional view and proposed configuration are neither disclosed nor shown in either Bast or Wedel. Rather, Petitioner imagines this configuration in an attempt to arrive at a display whose size meets the claimed limitations. While Wedel discusses the possibility of combining the antenna and speaker, Wedel does not disclose the configurations shown in the annotations, and is silent on changing the size of a display, much less expanding a display as Petitioner suggests. And even if the speaker and antenna could be combined in Bast’s device, Bast and Wedel are silent on changing the size of a display.

Therefore, not only is Petitioner’s proposed modification of Bast in view of Wedel unsupported, it would not arrive at a display that practically covers the entire front surface of the housing. Accordingly, all of Petitioner’s grounds fail.

C. Petitioner fails to address all components on the Bast or Wedel devices preventing the screen from practically covering the entire front surface as claimed.

As discussed above, Petitioner goes to great lengths to improperly modify the top of its hypothetical Bast-Wedel device to expand the display in the location of the speaker. However, both Bast and Wedel also disclose microphones disposed below each of the respective displays, and speaker outlets disposed above each of the displays that Petitioner conveniently neglects to address. EX1022, FIG. 1; EX1023, 2:15-16, FIGS. 1 and 2. But the speaker outlets and microphones occupy significant real estate on the front surface of the device, preventing either display from practically covering the entire front surface as claimed.

As shown below, Bast's microphone 3 and Wedel's microphone 5 are both positioned below the respective displays. Both microphones occupy a significant portion of the front surface between the display and the bottom of the device that prevents the displays from extending over a lower portion of the front surface of the housing.

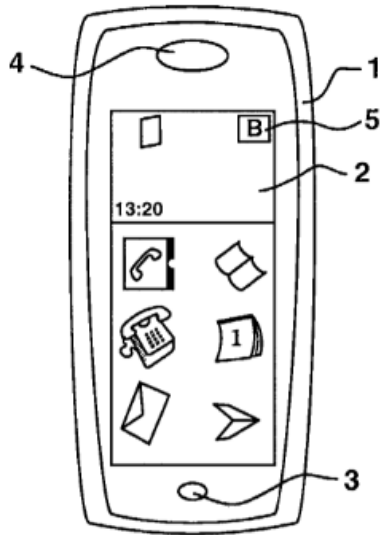


Figure 1

EX1022, FIG. 1.

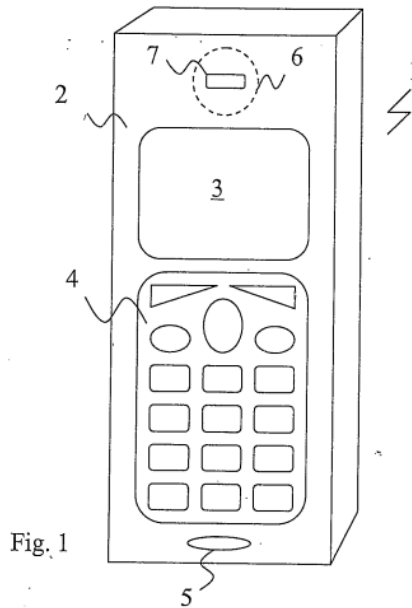
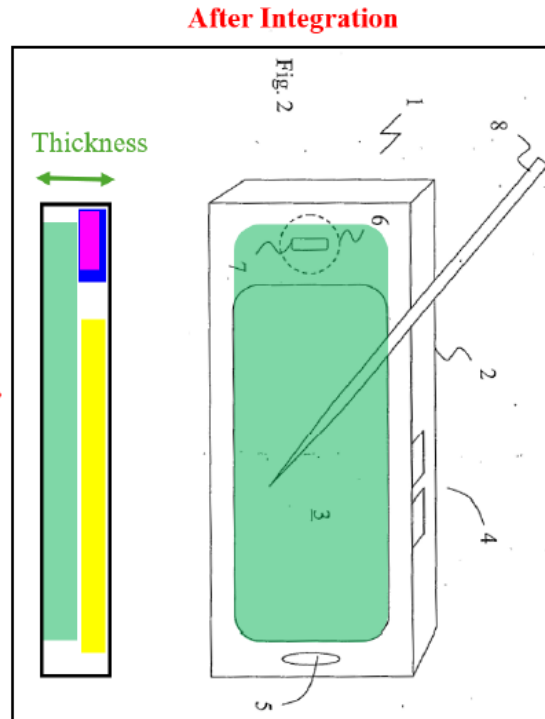


Fig. 1

EX1023, FIG. 1.

Petitioner's proposed combination of Bast and Wedel only addresses modifying the speaker above the display by combining the speaker with the antenna and disposing the speaker/antenna behind the display. Pet., 30-32, 45-46. While this modification is unsupported, as discussed above, Wedel notably does not disclose a similar modification or space saving arrangement that would move the microphone behind the display or otherwise away from the front surface. Indeed, Petitioner shows the unmodified microphone at the bottom of the device in its self-generated and annotated figures of Wedel's device. Pet., 31, 46. As shown in Petitioner's annotations (reproduced below), Wedel's display 3 cannot extend into a lower portion of the front surface because the microphone 5 occupies this

real estate. Accordingly, even Petitioner's modified display does not practically cover the entire front surface of the device.



EX1023, FIG. 2 (Petitioner's annotations). Pet., 31, 46.

Moreover, a POSA would not have been motivated to modify the microphone in a similar fashion to the speaker, because doing so would position the microphone behind another component, leaving the microphone unsatisfactory for its intended purpose because it would obstruct and muffle sound getting to the microphone. *See* M.P.E.P. 2143.01.V (“If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, there may be no suggestion or motivation to make the proposed modification.” (*citing In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984))).

Further, Petitioner fails to address Wedel's speaker outlet 7 occupying space above the display and preventing the display from extending over the upper portion of the front surface of the housing. Wedel's "terminal output 7 is mounted on the front of the terminal above the display with the speaker 6 immediately behind the output 7." EX1023, 2:15-17, FIGS. 1 and 2. Wedel is silent on changing the positional relationship between the terminal output and the speaker, recognizing the importance of unhindered sound wave transmission from the speaker and through adjacent objects. Indeed, Wedel provides similar apertures 32 in the film of the speaker-antenna configuration "for the purpose of conveying sound waves from a speaker through the film." EX1023, 8:10-12, FIG. 9. Accordingly, a POSA would have understood that the positional relationship between the terminal output and the speaker is critical so that the speaker can transmit unhindered sound waves through the device's housing. Moreover, placing the speaker behind the display—without a terminal output—as suggested by Petitioner, would leave the speaker unsatisfactory for its intended purpose because the display would obstruct and muffle sound waves transmitted from the speaker. *See* M.P.E.P. 2143.01.V

Petitioner's proposed combination of Bast and Wedel neglects to address the microphones and speaker outlets occupying real estate on the front surface and preventing their respective displays from practically covering the entire front

surface of the housing as claimed. Petitioner’s flawed analysis dooms its grounds, and the Board should deny institution for this additional reason.

D. The ’144 patent discloses alternative placements of the microphone that allow the display unit to practically cover the entire front surface of the housing—Bast and Wedel do not.

Unlike Bast and Wedel, the ’144 patent discloses placing the microphone in alternative locations around the device. For example, the ’144 patent discloses that “a microphone may be integrated within said electronic device” and that the “microphone, speaker, or attachment means may be located in any other locations within said device.” EX1001, 19:43-44, 91:6-8; *see also* EX1001, 100:45-49. The ’144 patent also discloses having a microphone as a separate device and wirelessly linking it to the phone. *Id.*, 22:47-51, 26:18-21, 26:23-28, 30:24-67, FIG. 27.

Bast and Wedel, however, do not disclose any similar alternative positioning for the microphone that would allow Bast and Wedel’s displays to “practically cover[] the entire front surface of [the] housing” as claimed. Thus, Bast and Wedel do not discuss any alternative microphone placements that would reasonably teach a POSA that the combined Bast and Wedel display would practically cover the entire front surface of the housing as claimed.

* * *

For at least these reasons, Bast alone or Bast in view of Wedel do not disclose or suggest that a “display unit practically covers the entire front surface of

said housing” and thus, the references alone or in combination do not disclose all the elements of independent claims 1, 9, and 15. Grounds 1-4 are therefore deficient and the Board should deny institution.

VI. PETITIONER IMPROPERLY RELIES ON MERE SILENCE IN BAST AND FAILS TO MEET ITS BURDEN TO SHOW THAT “NONE OF SAID COMPONENTS [OF THE DEVICE] NOTICEABLY EXTEND[] OUT FROM SAID HOUSING” AS CLAIMED.

Independent claim 1 recites that “said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing.” EX1001, Claim 1. Claims 14 and 19, which depend from independent claims 9 and 15, respectively, recite that similar features. *Id.*, claims 9, 14, 15, and 19. The claimed negative limitation expressly recites that components of the mobile device do not noticeably extend out from the housing. Petitioner relies on Bast alone for this feature in Grounds 1-3 of the Petition. Pet. 48-49, 70, 87. But Bast does not affirmatively disclose that the components of the device do not noticeably extend out from the housing. Wedel fails to cure the deficiencies of Bast, nor does Petitioner allege that it does. Thus, the Petition is facially flawed and the Board should deny institution.

Petitioner improperly relies on Bast’s mere neglect to show and describe common components (required for the device to operate) in its figures and specification in an attempt to demonstrate that Bast purposefully does not include

components that noticeably extend out from the housing. Pet. 48-49, 70, 87.

Petitioner's approach is directly contrary to legal precedent.

Indeed, claims 1, 14, and 19 recite negative limitations—that “none of [the] components [of the mobile phone] noticeably extended out from said housing.” EX1001, claims 1, 14, and 19. Thus, Petitioner must show something more than mere silence to prove that a negative claim limitation is disclosed in the prior art. *See* M.P.E.P. § 2173.05(i) (“The mere absence of a positive recitation is not basis for an exclusion.”) Indeed, the Federal Circuit has stated that for negative limitations “[s]ilence [] would not by itself suffice for the Petitioner to meet its burden to prove, by a preponderance of the evidence,” that a claimed feature is not present. *Int'l Bus. Machs. Corp.*, No. 2018-1065, 15. Yet Petitioner's approach here is precisely what the law forecloses—relying on silence itself for an expressly recited negative limitation.

The cited reference used in *Int'l Bus. Machs. Corp. v. Iancu* was silent on the content of an accessCard that was being used to show a claimed “single-sign-on operation.” *Id.* The PTAB used this silence to support a finding that there was no user authentication action. *Id.* But the Federal Circuit said that the PTAB erred in its decision and emphasized that “the Board meant that it simply could not tell one way or the other whether the accessCard contains credentials” and that “[s]ilence [] would not by itself suffice for the Petitioner to meet its burden to

prove, by a preponderance of the evidence, that there was no user authentication action in this scenario.” *Id.*

Similar to the contents of the accessCard in *IBM*, Bast’s silence regarding components extending out from the housing does not demonstrate they are affirmatively absent from the device. Bast’s limited disclosure—just over twenty paragraphs—focuses on a mobile device that can detect and change the orientation of a display. It is silent regarding other components that were commonly found on portable electronic devices. Indeed, Bast’s limited and brief specification only discusses eight components of the device: case 1, screen 2, microphone 3, speaker 4, circuit 6 for detecting orientation, central unit 7, screen controller 8, and accelerometers 9a, 9b. *See* EX1022, ¶¶[0010], [0013], [0016], FIGS. 1 and 6. Bast is silent about many common features of a mobile device, and certainly does not discuss intentionally removing or replacing components that extend out from the housing.

Moreover, a POSA would have understood that a mobile device, such as the one disclosed in Bast, included many more components and functions than simply detecting orientation of a screen. For example, similar portable devices at the time of Bast included a battery, an antenna, a data or power socket, etc. But Bast’s specification and drawings are silent on these common features. According to Petitioner’s logic, Bast would disclose that its mobile device does not have a

battery, for example. The absurdity of this notion proves the point: a reference's mere silence regarding a particular feature does not support that it affirmatively discloses its absence. Bast's lack of detail regarding common features is not because the common features are not present in the device, as Petitioner suggests, but because Bast's specification is narrowly drafted to describe only features of the specific invention—the orientation detecting system.

Thus, Petitioner's grounds are legally deficient and fail to show that none of the components extend out from the housing of Bast's device.

VII. JAMBHEKAR AND BENOIT DO NOT CURE THE DEFICIENCIES OF BAST AND WEDEL.

Petitioner relies on Bast and Wedel in every ground in the Petition. Pet., 23. In Grounds 1-3, Petitioner relies on Bast and Wedel for allegedly disclosing that the display practically covers the entire front surface of the housing, as recited in all of the independent claims. *Id.*, 44-46, 66, 84. Petitioner further relies on Bast and Wedel in Grounds 1-3 for allegedly disclosing that none of the components of the device noticeably extend out from the housing, as recited in independent claim 1 and dependent claims 14 and 19 that depend from independent claims 9 and 15, respectively. *Id.*, 48-49, 70, 87. Each of Grounds 1-3 are deficient for at least the reasons presented above in Sections IV, V and VI. Because Ground 4 depends on Grounds 2 and 3, all of the Petition's grounds are deficient. *See* Pet., 23.

Neither Jambhekar nor Benoit, relied on in various combinations with Bast and Wedel in Grounds 2-4, disclose or suggest a display that practically covers the entire front surface or that no components extend out from the housing. Therefore, Petitioner's secondary references do not cure the deficiencies of Bast and Wedel. Accordingly, the Board should deny institution.

VIII. IF THE BOARD FINDS THAT PETITIONER FAILS TO MEET ITS BURDEN FOR LESS THAN ALL OF THE CHALLENGED CLAIMS AND/OR PROPOSED GROUNDS, THE BOARD SHOULD DENY INSTITUTION TO CONSERVE RESOURCES.

Patent Owner identifies several deficiencies in Petitioner's arguments above. Should the Board determine that Petitioner met its burden for some claims, but failed to meet its burden of for other claims or Grounds, the Board should still deny institution to conserve the Board's valuable resources. *See* EX2008, 3; *Chevron Oronite Co. v. Infineum USA L.P.*, IPR2018-00923, Paper 9 at 10–11 (P.T.A.B. Nov. 7, 2018).

Pursuant to 35 U.S.C. § 314(a), an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” But even when a petitioner demonstrates a reasonable likelihood of prevailing with respect to one or more claims, institution of review remains discretionary. *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.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). 35 U.S.C. § 316(b) also provides that, when determining whether to exercise its discretion, the Board should consider the effect of any regulations on “the efficient administration of the Office [and] the ability of the Office to timely complete proceedings.” Additionally, 37 C.F.R. § 42.1(b) provides that the Board should also take into account the requirement to construe the rules to “secure the just, speedy, and inexpensive resolution of every proceeding.” The Trial Practice Guide also explains that the Board may consider the number of claims and grounds that meet and do not meet the reasonable likelihood standard when deciding whether to institute *inter partes* review under 35 U.S.C. § 314(a). Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019, 64 (Nov. 20, 2019), available at <https://www.uspto.gov/TrialPracticeGuideConsolidated> (“CTPG”) (“[T]he panel will evaluate all the challenges and determine whether, in the interests of efficient administration of the Office and integrity of the patent system, the entire petition should be denied.”).

Here, should the Board determine that Petitioner has failed to meet its burden of establishing unpatentability for some but fewer than all of the challenged claims of the ’144 patent as discussed in Sections IV, V, and VI, the Petition

should still be denied in order to conserve the Board’s valuable time and resources. *See* Interim Processes Memo, 3; *Deeper, UAB. v. Vexilar, Inc.*, IPR2018-01310, Paper 7 at 43 (P.T.A.B. Jan. 24, 2019) (finding that because Petitioner only demonstrated a reasonable likelihood of prevailing with respect to a subset of the 23 challenged claims, “instituting a trial with respect to all twenty-three claims . . . would not be an efficient use of the Board’s time and resources.”). Similarly, should the Board determine that Petitioner has failed to meet its burden of establishing unpatentability for some but not all grounds, the Petition should be denied in order to conserve the Board’s valuable time and resources. *See* Interim Processes Memo, 3; CTPG, 64; 35 U.S.C. § 316(b); 37 C.F.R. § 42.1(b).

IX. THE BOARD SHOULD DENY THIS PETITION BECAUSE PETITIONER FAILS TO SHOW ANY CAUSE FOR THIS SECOND PARALLEL PETITION CHALLENGING THE ’144 PATENT.

Petitioner filed two separate petitions concurrently challenging the validity of the ’144 patent claims: IPR2025-00529 (“the -529 IPR”) and this IPR. Paper 2, 1. Despite clear guidance from the Board that institution of multiple petitions challenging a single patent is disfavored, Petitioner attempts to justify its second petition by alleging that its circumstances fall under an example that warrants institution of multiple petitions. *See id.* But, the true circumstances here do not constitute any cause that is recognized by the Board as necessitating multiple petitions. Rather, the multiple petitions here are a transparent attempt to

circumvent the Board's guidance on filing multiple petitions. Instituting both proceedings would place a substantial and unnecessary burden on both Keyless and the Board. Thus, the Board should decline to institute this proceeding if the Board institutes the -529 IPR and vice versa.

A. Petitioner's alleged reasons for the parallel petitions do not constitute any cause recognized by the Board for multiple petitions.

The CTPG provides the straightforward principle that one petition should be sufficient to challenge the claims of a patent. CTPG, 59. The Board has recognized that:

Two or more petitions filed against the same patent at or about the same time (e.g., before the first preliminary response by the patent owner) may place a substantial and unnecessary burden on the Board and the patent owner and could raise fairness, timing, and efficiency concerns. See 35 U.S.C. § 316(b). In addition, multiple petitions by a petitioner are not necessary in the vast majority of cases. To date, a substantial majority of patents have been challenged with a single petition.

CTPG, 59. Although the Board recognizes there may be circumstances in which more than one petition may be necessary, the Board notes this "should be rare." *Id.*

Petitioner alleges that the parallel petitions fall under an example provided by the CTPG for justifying the institution of multiple petitions because it is a "dispute about priority date." *See* Paper 2, 3-4 (citing CTPG, 59). However, this justification falls apart upon looking at the true circumstances of the petitions here.

The circumstances envisioned by the CTPG, in which the priority dispute “require[es] arguments under multiple prior art references,” are circumstances in which one set of arguments *are* affected by the priority dispute, “requiring” a second set of arguments that are *not* affected by the priority dispute. *See* CTPG, 59. Here *both* Petitions have issues with references that are not indisputably prior art—thus, a second petition is not truly required to avoid a priority date dispute.

In the -529 IPR, Petitioner relies on Pensjo and Benoit in its challenges. Paper 2, 1–2. Petitioner acknowledges that both references are published less than one year prior to the priority date of the ’144 patent. *Id.* However, rather than presenting a second petition with *earlier* prior art, Petitioner presents this Petition, which relies on references (Bast and Wedel) with priority dates *after* the priority date of the ’144 patent. *Id.*, 2. Petitioner acknowledges this Petition *also* has a priority date dispute because it states Bast “would be indisputably prior art *if the Board agrees with Petitioners’ priority arguments.*” Paper 2, 3-4 (emphasis added). The priority date issue did not, therefore, require filing this Petition.

Petitioner also argues “the strength of the Petitions also counsels in favor of instituting both.” Paper 2, 4-5. However, strength of the merits is not a recognized reason in the CTPG as one of the “rare” circumstances where two petitions may be needed. *See* CTPG 59. And to be sure, for the reasons above, the merits of this Petition are not strong.

Despite the fact that Petitioner challenges only 19 claims¹, Petitioner also attempts to justify filing multiple petitions by arguing that “the number and length of claims makes it impossible to address both the *Pensjo* and *Bast* grounds in a single petition.” Paper 2, 4. A quick glance at the ’144 patent’s claims reveals that Petitioner’s assertion is not credible.

Although the CTPG indicates multiple petitions may be necessary when there are “a large number of claims” (CTPG, 59), that circumstance is not present here. The length of the claims also does not justify a second petition. Petitioner is not using the second petition to challenge a different set of claims, but rather challenges the same claims in both petitions, again showing that Petitioner’s argument is not credible. The ’144 patent contains only three independent claims, which share many of the same limitations, and there is significant overlap in the dependent claims. In fact, in its Petition, Petitioner takes advantage of the similarities by referring to the discussion of prior claims for some of its challenges. *See e.g.*, Pet., 65-70, 81.

Thus, upon examination, Petitioner’s alleged justifications quickly unravel. The multiple petitions here are a transparent attempt to circumvent the Board’s guidance that “one petition should be sufficient.” CTPG, 59. This is even more

¹ Claim 6 of the ’144 patent is not challenged in the Petition. *See* Pet., 23.

apparent from Petitioner’s own assertion that the obviousness grounds contain material differences (Paper 2, 2-3)—a reason not recognized as justification in the CTPG because additional challenges based on different art are exactly the abuse the Board seeks to prevent in stating that two petitions “should be rare.” Instituting a second petition here would prejudice Keyless and place a substantial and unnecessary burden on both the Board and Keyless.

B. The Board panel has authority to deny a parallel petition challenging the same patent without cause.

When, as here, multiple parallel petitions are filed by a petitioner challenging the same patent, the current Trial Practice Guide provides the patent owner the right to respond, in its preliminary response or in a separate paper filed with the preliminary response, “and explain why the Board should not exercise its discretion to institute more than one petition (if it institutes at all).” CTPG, 60-61. This guidance was not rescinded by the “Interim Processes for PTAB Workload Management” (the “Interim Processes Memo”). Indeed, the FAQs for Interim Processes for PTAB Workload Management (“FAQs”) provide for the Board panel to address discretionary considerations when authorized by the Director and in certain circumstances. *See* EX2008, Question 9.

The panel has such authority here to not institute a second petition when Petitioner fails to show cause for why multiple petitions are necessary. In particular, the authority to deny a second parallel petition has been provided to the

panel pursuant to the direction and authorization provided in the CTPG—issued under the Director’s authority and not rescinded under the Interim Processes Memo—to consider Petitioner’s ranking paper “on why the Board should exercise its discretion to institute additional petitions if it identifies one petition that satisfies petitioner’s burden” and Keyless’s response to the ranking paper.² *See* CTPG, 60-61. Similar to considerations on whether a petition presents an insufficient number of challenges that meet the reasonable likelihood standard (discussed in FAQ9), it is also necessary and appropriate for the Board panel to consider whether a second petition should be instituted if it determines to institute on one of the petitions.

Because Petitioner has not shown good cause (or indeed any real cause) for its multiple petitions, this Petition should be denied if the -529 IPR is instituted and vice versa.

X. CONCLUSION

The Petition fails to show a reasonable likelihood that the challenged claims

² To the extent it is ambiguous that the authority is provided in the CTPG, should this Petition be referred to a merits panel, Keyless requests the Director provide such explicit authority. *See* Paper 9, 9 n.3 (Keyless’s request to the Director to consider the POPR).

are unpatentable as obvious in view of the cited art and, therefore, the Board
should deny institution.

Respectfully submitted,

KRAMER ALBERTI LIM & TONKOVICH, LLP

/ David Alberti /

David L. Alberti
Registration No. 43,465
Lead Attorney for Patent Owner

Date: July 9, 2025

950 Tower Lane, Suite 1725
Foster City, California 94404
(650) 825-4300 x104

CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

1. This Patent Owner Preliminary Response complies with the type-volume limitation of 14,000 words, comprising 7,913 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

2. This Patent Owner Preliminary Response complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman font.

Respectfully submitted,

KRAMER ALBERTI LIM & TONKOVICH, LLP

/ David Alberti /

David L. Alberti
Registration No. 43,465
Lead Attorney for Patent Owner

Date: July 9, 2025

950 Tower Lane, Suite 1725
Foster City, California 94404
(650) 825-4300 x104

CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

I certify that the above-captioned **PATENT OWNER PRELIMINARY RESPONSE UNDER 37 C.F.R. § 42.107(a)** and associated Exhibit 2013 were served in their entireties on July 9, 2025, upon the following parties via electronic mail:

Joshua L. Goldberg (Lead Counsel)
Kevin D. Rodkey (Back-up Counsel)
Tyler M. Akagi (Back-up Counsel)
Daniel C. Cooley (Back-up Counsel)
Chen Zang (Back-up Counsel)
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, LLP
joshua.goldberg@finnegan.com
kevin.rodkey@finnegan.com
tyler.akagi@finnegan.com
daniel.cooley@finnegan.com
chen.zang@finnegan.com

Respectfully submitted,

KRAMER ALBERTI LIM & TONKOVICH, LLP

/ David Alberti /

David L. Alberti
Registration No. 43,465
Lead Attorney for Patent Owner

Date: July 9, 2025

950 Tower Lane, Suite 1725
Foster City, California 94404
(650) 825-4300 x104