

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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UNIFIED PATENTS INC.,  
Petitioner,

v.

SPEAKWARE, INC.,  
Patent Owner.

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Case IPR2019-00495  
Patent 6,397,186 B1

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Before DEBRA K. STEPHENS, DAVID C. MCKONE, and  
ROBERT J. WEINSCHENK, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*.

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

## I. INTRODUCTION

Unified Patents Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–4, 7, 9, 10, 12, 14, 16–21, 23–26, 28–31, 39, 41, and 43 (“the challenged claims”) of U.S. Patent No. 6,397,186 B1 (Ex. 1001, “the ’186 patent”). SpeakWare, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”) to the Petition.

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.” 35 U.S.C. § 314(a). Further, a decision to institute may not institute on fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). After considering the evidence and arguments presented in the Petition and Preliminary Response, we determine that Petitioner demonstrates a reasonable likelihood of prevailing in showing that at least one of the challenged claims of the ’186 patent is unpatentable. Accordingly, we institute an *inter partes* review as to all the challenged claims of the ’186 patent on all the grounds of unpatentability set forth in the Petition.

### A. *Related Proceedings*

The parties indicate that the ’186 patent is or has been the subject of several cases in the United States District Court for the Central District of California. Pet. 1–2; Paper 3, 1. The parties also indicate that the ’186 patent is the subject of petitions for *inter partes* review in IPR2019-00340 and IPR2019-00342. Pet. 2; Paper 3, 2.

B. *The '186 Patent*

The '186 patent relates to “a wireless, user-programmable, voice-activated and voice-operated remote control system for controlling appliances.” Ex. 1001, 1:6–9. According to the '186 patent, “[a]n important aspect of the invention relates to voice-actuated mode switching for switching the present invention from a low power consumption mode.” *Id.* at 4:31–33.

The '186 patent describes a system that includes a microphone, an audio switching circuit, a sound activation circuit, a speech recognition circuit, and a transmitter. *Id.* at 7:22–26. The '186 patent explains that the microphone receives sound, converts it into an output signal, and directs the output signal to the audio switching circuit. *Id.* at 7:43–46. If the speech recognition circuit is in speech recognition mode (i.e., it is awake), the audio switching circuit routes the output signal to the speech recognition circuit. *Id.* at 7:46–50. If, on the other hand, the speech recognition circuit is in sound activation mode (i.e., it is asleep), the audio switching circuit routes the output signal to the sound activation circuit. *Id.* at 7:50–53. The sound activation circuit includes an amplification circuit and a trigger circuit. *Id.* at 7:54–59. “If the amplified [output] signal is of sufficient amplitude to activate the trigger circuit . . . , the output of the trigger circuit causes a logic state change on the input/output pin of the speech recognition circuit . . . , causing the invention to change modes from a sleep or sound activation mode to an awake or speech recognition mode.” *Id.* at 7:62–67.

C. *Illustrative Claim*

Of the challenged claims, claims 1, 21, and 41 are independent. Claim 1 is reproduced below.

1. An audio signal activated control system for controlling appliances comprising:

a microphone for receiving audio signals and converting said audio signals to electrical signals;

a speech recognition system for receiving said electrical signals, said speech recognition system including a processor and having a low power sound activation mode for detecting the presence of said electrical signals and a speech recognition mode for converting said electrical signals to electrical representative signals, decoding said electrical representative signals and generating control signals for controlling one or more appliances, wherein in said speech recognition mode said processor decodes said electrical representative signals and wherein in said sound activation mode said processor is in a low power state, said speech recognition system configured to automatically switch from said sound activation mode to said speech recognition mode as a function of the amplitude of said electrical signals; and

an appliance control circuit which includes a transmitter, said appliance control circuit configured to receive said control signals from said speech recognition system and generate and automatically transmit one or more appliance control signals to said one or more appliances.

Ex. 1001, 52:3–28.

D. *Evidence of Record*

Petitioner submits the following references and declaration (Pet. 4–5):

<b>Reference or Declaration</b>	<b>Exhibit No.</b>
Declaration of Bruce McNair (“McNair Declaration”)	Ex. 1003
Bissonnette et al., PCT Publication No. WO 94/03020 (filed July 15, 1993, published Feb. 3, 1994) (“Bissonnette”)	Ex. 1006
McCall et al., U.S. Patent No. 6,591,239 B1 (filed Dec. 9, 1999, issued July 8, 2003) (“McCall”)	Ex. 1007
Miyazawa et al., U.S. Patent No. 5,983,186 (filed Aug. 20, 1996, issued Nov. 9, 1999) (“Miyazawa”)	Ex. 1008
Salazar et al., U.S. Patent No. 5,774,841 (filed Sept. 20, 1995, issued June 30, 1998) (“Salazar”)	Ex. 1009

E. *Asserted Grounds of Unpatentability*

Petitioner asserts that the challenged claims are unpatentable on the following grounds (Pet. 7):

<b>Claims</b>	<b>Basis</b>	<b>References</b>
1–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43	35 U.S.C. § 103(a)	Bissonnette and Miyazawa
17 and 18	35 U.S.C. § 103(a)	Bissonnette, Miyazawa, and Salazar
19 and 20	35 U.S.C. § 103(a)	Bissonnette, Miyazawa, and McCall

II. ANALYSIS

A. *Claim Construction*

In an *inter partes* review proceeding, a claim of a patent is construed using the same standard used in federal district court, including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b). Neither party proposes expressly construing any claim terms at this time. *See* Pet. 11; Prelim. Resp. 1–63. On this record and for purposes of this Decision, we determine that none of the claim terms require express construction to resolve the parties’ disputes about the asserted grounds of unpatentability. *See* Section II.D; *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”).

B. *35 U.S.C. § 325(d)*

Patent Owner argues that the Petition should be denied under 35 U.S.C. § 325(d). Prelim. Resp. 1–3. 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.” We consider several non-exclusive factors when determining whether to deny institution under § 325(d), including

(a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

*Becton, Dickinson & Co. v. B. Braun Melsungen AG*, Case IPR2017-01586, slip op. at 17–18 (PTAB Dec. 15, 2017) (Paper 8) (informative).

1. *Factors A and B*

Under *Becton* factors A and B, we consider “the similarities and material differences between the asserted art and the prior art involved during examination” and “the cumulative nature of the asserted art and the prior art evaluated during examination.” *Id.* at 17. Patent Owner contends that, during prosecution, the Examiner rejected the pending claims based on Kimura, which describes “a system to control appliances,” and Tran, which describes “a device that automatically switched from a low power state to an active state as a function of amplitude.” Prelim. Resp. 4, 17. Patent Owner asserts that the Petition relies on a similar combination, namely, Bissonnette,

which describes “a purported system to control appliances that made use of a talk switch to switch modes,” and Miyazawa, which describes “a device that purportedly switched from a low power state to an active state as a function of the amplitude of electrical signals.” *Id.* at 10, 17.

*Becton* factors A and B do not favor denying institution. During prosecution, the Examiner rejected the pending claims based on Kimura and Tran, and the Applicant responded by arguing that it would not have been obvious to combine those references. Ex. 1002, 61–65, 75–76. Specifically, the Applicant pointed out that Kimura includes a push to talk switch that prevents the system “from being triggered into an erroneous operation due to surrounding noise.” *Id.* at 75–76. The Applicant then argued that

it should be clear that the push to talk switch used not only in the Kimura et al. ‘090 patent but also the Kimura ‘080 patent is used to solve a problem associated with prior art systems which do not include a push to talk switch. As such, it is clear that the Kimura et al. patents actually teach away from combination with a system which eliminates the need for the push to talk switch as in the Tran patent. The present invention provides an alternative solution to the problem not contemplated or considered by the Kimura et al. patents. In particular, in accordance with an important aspect of the invention, the push to talk switch is eliminated contrary to the teachings of the Kimura et al. patents, while at the same time preventing false operations of the controlled device due to background noise by detecting the amplitude of an input signal and switching to a speech recognition mode if the input signal amplitude exceeds a certain threshold.

*Id.* at 76. In other words, the Applicant argued that it would not have been obvious to combine Kimura and Tran because the proposed combination would have eliminated a key feature of Kimura—the “push to talk switch”—that prevented erroneous operation of the speech recognition system. *Id.* In

response to the Applicant's argument, the Examiner allowed the pending claims. *Id.* at 88.

Here, Petitioner proposes replacing Bissonnette's manual voice keys with Miyazawa's automatic voice activation. Pet. 18. But, as Petitioner points out, Miyazawa's automatic voice activation includes techniques for preventing erroneous operation. Pet. 15–16; Ex. 1008, 4:14–5:7, 11:50–67. Thus, Petitioner's proposed combination of Bissonnette and Miyazawa would still include techniques for preventing erroneous operation, whereas the Applicant characterized the Examiner's combination of Kimura and Tran as eliminating a feature that prevents erroneous operation. As a result, on this record, Petitioner's proposed combination is materially different than the prior art applied by the Examiner during prosecution.

## 2. *Factor C*

Under *Becton* factor C, we consider “the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection.” *Becton*, slip op. at 17. Patent Owner contends that “Miyazawa is cited on the face of the '186 patent, which means the examiner was aware of it during prosecution.” Prelim. Resp. 13. Patent Owner also contends that “because the examiner was aware of Miyazawa when he initially rejected the claims, it is reasonable to infer that he concluded that Miyazawa was cumulative of (or not as good as) Tran for the examiner's purposes.” *Id.* at 18.

*Becton* factor C does not favor denying institution. The evidence of record does not indicate that the Examiner considered Bissonnette. And, although the Applicant cited Miyazawa in an information disclosure statement (Ex. 1002, 55), the Examiner did not rely on Miyazawa as the

basis for a rejection or otherwise provide an analysis of Miyazawa (*id.* at 31–39, 58–66).

3. *Factor D*

Under *Becton* factor D, we consider “the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art.” *Becton*, slip op. at 17–18. Patent Owner contends that “[j]ust like the examiner did during prosecution, the Petition identifies (1) a desire to replace a manual activity (pressing a voice key) with an automatic means ‘so the user did not need to turn on the switch every time’; and (2) a desire to ‘maximiz[e] battery life by using idle and sleep modes to reduce power drain from the voice recognition components’ as the purported motivations to combine.” Prelim. Resp. 15 (citing Pet. 18–20; Ex. 1002, 61–62). Patent Owner further contends that “in this Preliminary Response, the Patent Owner makes the same argument the applicant made to overcome the examiner’s combination: that there is no reason or motivation to combine the asserted references, and in fact the primary reference (in the Petition’s case, Bissonnette) actually teaches away.” *Id.* at 19.

*Becton* factor D does not favor denying institution. As discussed above, during prosecution, the Applicant argued that it would not have been obvious to combine Kimura and Tran because the proposed combination would have eliminated a key feature of Kimura—the “push to talk switch”—that prevented erroneous operation of the speech recognition system. Ex. 1002, 75–76. Here, Petitioner proposes replacing Bissonnette’s manual voice keys with Miyazawa’s automatic voice activation. Pet. 18. But, as Petitioner points out, Miyazawa’s automatic voice activation includes

techniques for preventing erroneous operation. Pet. 15–16; Ex. 1008, 4:14–5:7, 11:50–67. Thus, Petitioner’s proposed combination of Bissonnette and Miyazawa would still include techniques for preventing erroneous operation, whereas the Applicant characterized the Examiner’s combination of Kimura and Tran as eliminating a feature that prevents erroneous operation. Thus, the Applicant’s arguments during prosecution do not overlap with the manner in which Petitioner relies on the prior art in the Petition.

4. *Factor E*

Under *Becton* factor E, we consider “whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art.” *Becton*, slip op. at 18. Patent Owner argues that Petitioner “does not assert any error in the examiner’s reasoning or decision to allow the claims over the combination of Kimura and Tran.” Prelim. Resp. 19.

*Becton* factor E does not favor denying institution. Regardless of whether the Examiner erred in evaluating the combination of Kimura and Tran, the Examiner did not substantively consider the combination of Bissonnette and Miyazawa. *See* Ex. 1002, 31–39, 58–66. Further, as discussed above, on this record, there is a material difference between the Examiner’s combination of Kimura and Tran and Petitioner’s combination of Bissonnette and Miyazawa. *See* Section II.B.1.

5. *Factor F*

Under *Becton* factor F, we consider “the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.” *Becton*, slip op. at 18. Patent Owner contends that “[t]he only additional evidence that the Petition cites is an expert declaration.” Prelim. Resp. 19. And, according to Patent Owner, “for the

motivation to combine, the declaration relies on the same desire to ‘automate . . . Bissonnette’s manual switching’ and ‘maximizing battery life’ asserted in the Petition—which, as explained above, are exactly the motivations to combine on which the examiner initially relied, but that the applicant ultimately overcame.” *Id.* at 20.

*Becton* factor F does not favor denying institution. As discussed above, on this record, there is a material difference between the Examiner’s combination of Kimura and Tran and Petitioner’s combination of Bissonnette and Miyazawa. *See* Section II.B.1. For at least that reason, the additional evidence and facts presented in the Petition warrant consideration.

#### 6. *Summary*

For the reasons discussed above, none of the *Becton* factors favor denying institution. Therefore, we do not exercise our discretion to deny institution under § 325(d).

#### C. *35 U.S.C. § 314(a)*

Patent Owner argues that the Petition should be denied under 35 U.S.C. § 314(a). Prelim. Resp. 24. Section 314(a) states that

[t]he Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 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.

Under § 314(a), the Director has discretion to deny institution of an *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”). We consider several non-exclusive factors when determining whether to deny institution under § 314(a), including

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;
2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;
3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;
4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
6. the finite resources of the Board; and
7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

*General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357, slip op. at 15–16 (PTAB Sept. 6, 2017) (Paper 19) (precedential).

1. *Factor One*

Under the first *General Plastic* factor, we consider “whether the same petitioner previously filed a petition directed to the same claims of the same patent.” *Id.* at 16. However, “our application of the *General Plastic* factors is not limited solely to instances when multiple petitions are filed by the same petitioner.” *Valve Corp. v. Elec. Scripting Prods., Inc.*, Case IPR2019-00062, slip op. at 9 (PTAB Apr. 2, 2019) (Paper 11) (precedential). “Rather, when different petitioners challenge the same patent, we consider any relationship between those petitioners when weighing the *General Plastic* factors.” *Id.*

Patent Owner argues that there is a significant relationship between Petitioner and Google LLC (“Google”), who previously filed two petitions for *inter partes* review of the ’186 patent in IPR2019-00340 and IPR2019-00342 (“the 340 and 342 IPRs”). Prelim. Resp. 29. Patent Owner contends that Google pays Petitioner a membership fee “specifically in exchange for [Petitioner] undertaking ‘NPE-deterrent activities,’ including filing ‘post-grant review requests’ like this one.” *Id.* Patent Owner also contends that the challenged claims in this case “completely overlap” with the challenged claims in the 340 and 342 IPRs. *Id.* at 30.

We need not determine whether the alleged relationship between Petitioner and Google is sufficient for the first *General Plastic* factor to favor denying institution. As discussed below, most of the *General Plastic* factors do not favor denying institution. Thus, even if the first *General Plastic* factor did favor denying institution, we would still decline to exercise our discretion under § 314(a) to deny institution.

## 2. *Factor Two*

Under the second *General Plastic* factor, we consider “whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it.” *General Plastic*, slip op. at 16. This factor includes considering whether the prior art relied on in the later petition “could have been found with reasonable diligence.” *Id.* at 20. Patent Owner points out that three of the four references Petitioner relies on—Bissonnette, Miyazawa, and Salazar—are cited in Google’s petitions in the 340 and 342 IPRs. Prelim. Resp. 31. Thus, according to Patent Owner, Petitioner knew of those references at least as of the time when Google filed its petitions in the 340 and 342 IPRs. *Id.* at 31–32.

We determine that the second *General Plastic* factor slightly favors denying institution. Because Bissonnette, Miyazawa, and Salazar are cited in Google’s petitions in the 340 and 342 IPRs (*see, e.g.*, IPR2019-00340, Paper 2, viii), which were filed about one month before Petitioner filed its Petition, Petitioner knew or should have known of those references around the time Google filed its petitions.

3. *Factor Three*

Under the third *General Plastic* factor, we consider “whether at the time of filing of the second petition the petitioner already received the patent owner’s preliminary response to the first petition or received the Board’s decision on whether to institute review in the first petition.” *General Plastic*, slip op. at 16. The Board previously explained that

factor 3 is directed to Petitioner’s potential benefit from receiving and having the opportunity to study Patent Owner’s Preliminary Response, as well as our institution decisions on the first-filed petitions, prior to its filing of follow-on petitions. . . . Multiple, staggered petitions challenging the same patent and same claims raise the potential for abuse. The absence of any restrictions on follow-on petitions would allow petitioners the opportunity to strategically stage their prior art and arguments in multiple petitions, using our decisions as a roadmap, until a ground is found that results in the grant of review. All other factors aside, this is unfair to patent owners and is an inefficient use of the *inter partes* review process and other post-grant review processes.

*Id.* at 17–18 (internal citation and footnote omitted). Patent Owner acknowledges that when Petitioner filed the Petition in this case, “Petitioner had not received [Patent Owner’s] Preliminary Response to Google’s petitions or the Board’s decision on whether to institute those petitions.”

Prelim. Resp. 32. Patent Owner argues, though, that “Petitioner *did* receive Google’s Petition” and used it “as a roadmap.” *Id.* at 33.

We determine that the third *General Plastic* factor does not favor denying institution. As Patent Owner acknowledges, when Petitioner filed the Petition in this case, Petitioner had not received Patent Owner’s preliminary response or the Board’s decision on institution in the 340 and 342 IPRs. *Id.* at 32. Thus, there is no indication that Petitioner strategically staged its prior art and arguments in order to use Patent Owner’s preliminary response or the Board’s decision on institution as a roadmap.

4. *Factors Four and Five*

Under the fourth and fifth *General Plastic* factors, we consider “the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition” and “whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent.” *General Plastic*, slip op. at 16. Patent Owner argues that “Petitioner provides no explanation (much less an adequate one) for the time elapsed between the filing of the Google 340 and 342 Petitions and this one.” Prelim. Resp. 34.

We determine that the fourth and fifth *General Plastic* factors do not favor denying institution. Petitioner filed the Petition in this case only about one month after Google filed its petitions in the 340 and 342 cases. *Compare* Paper 5, 1, *with* IPR2019-00340, Paper 3, 1. And, as discussed above, when Petitioner filed the Petition in this case, Petitioner had not received Patent Owner’s preliminary response or the Board’s decision on institution in the 340 and 342 IPRs. Prelim. Resp. 32.

5. *Factors Six and Seven*

Under the sixth and seventh *General Plastic* factors, we consider “the finite resources of the Board” and “the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.” *General Plastic*, slip op. at 16. Patent Owner argues that “the Petition is not the last in the series” because “[t]here are five more—a total of eight—all filed by the Related Petitioners, and all challenging overlapping claims of the same patent.” Prelim Resp. 35.

We determine that the sixth and seventh *General Plastic* factors do not favor denying institution. Petitioner filed a single petition challenging the '186 patent about one month after Google filed its petitions in the 340 and 342 IPRs. *Compare* Paper 5, 1, *with* IPR2019-00340, Paper 3, 1. Thus, we are not persuaded that this case implicates the efficiency concerns of the sixth and seventh *General Plastic* factors.

6. *Summary*

For the reasons discussed above, five of the seven *General Plastic* factors do not favor denying institution. Even if Petitioner had the alleged relationship with the previous petitioner and Petitioner was aware of the asserted references at the time of the previous petitions, our analysis of the *General Plastic* factors indicates that this case does not implicate the fairness and efficiency concerns underlying the *General Plastic* factors. Thus, upon weighing the *General Plastic* factors, we decline to exercise our discretion under § 314(a) to deny institution.

D. *Asserted Grounds of Unpatentability*

1. *Obviousness of Claims 1–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43 Over Bissonnette and Miyazawa*

Petitioner argues that claims 1–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43 would have been obvious over Bissonnette and Miyazawa. Pet. 7. For the reasons discussed below, Petitioner demonstrates a reasonable likelihood of prevailing in showing that claims 1–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43 would have been obvious over Bissonnette and Miyazawa.

a. *Claim 1*

The preamble of claim 1 recites “[a]n audio signal activated control system for controlling appliances.” Ex. 1001, 52:3–4. Petitioner presents evidence that Bissonnette teaches an audio signal control system for controlling appliances. Pet. 20–21 (citing Ex. 1006, Abstract, 2:34–3:2, Fig. 1).

Claim 1 recites “a microphone for receiving audio signals and converting said audio signals to electrical signals.” Ex. 1001, 52:5–6. Petitioner presents evidence that Bissonnette teaches a microphone for receiving audio signals and converting the audio signals into electrical signals. Pet. 22–23 (citing Ex. 1006, 10:8–19, 10:30–11:22, 32:15–17, 48:7–9, Fig. 1).

Claim 1 recites “a speech recognition system for receiving said electrical signals, said speech recognition system including a processor.” Ex. 1001, 52:7–9. Petitioner presents evidence that Bissonnette teaches a speech recognition system with a processor for receiving the electrical signals. Pet. 23–24 (citing Ex. 1006, 11:36–12:10, 14:25–27, Fig. 1).

Claim 1 recites “said speech recognition system . . . having a low power sound activation mode for detecting the presence of said electrical signals.” Ex. 1001, 52:9–11. Petitioner presents evidence that Miyazawa teaches a speech recognition system with a low power sleep mode that detects the presence of the electrical signals. Pet. 26–27 (citing Ex. 1008, 10:3–16, 11:50–67).

Claim 1 recites “said speech recognition system . . . having . . . a speech recognition mode for converting said electrical signals to electrical representative signals.” Ex. 1001, 52:11–13. Petitioner presents evidence that Bissonnette teaches a speech recognition system with a speech recognition mode that converts the electrical signals into representative signals. Pet. 24–25 (citing Ex. 1006, 6:12–14, 12:7–10, 31:4–7, 32:13–32, 33:19–23, 48:19–22, Fig. 3).

Claim 1 recites “said speech recognition system . . . having . . . a speech recognition mode for . . . decoding said electrical representative signals and generating control signals for controlling one or more appliances.” Ex. 1001, 52:13–15. Petitioner presents evidence that Bissonnette teaches a speech recognition system with a speech recognition mode that decodes the representative signals and generates control signals for controlling one or more appliances. Pet. 27–29 (citing Ex. 1006, 12:3–10, 25:19–30, 29:16–27, 34:22–25, 37:15–31, 38:21–25, 48:19–28).

Claim 1 recites “wherein in said speech recognition mode said processor decodes said electrical representative signals.” Ex. 1001, 52:15–17. Petitioner presents evidence that Bissonnette teaches a processor that decodes the representative signals in speech recognition mode. Pet. 29 (citing Ex. 1006, 12:3–10, 38:21–25, 48:19–26).

Claim 1 recites “wherein in said sound activation mode said processor is in a low power state.” Ex. 1001, 52:17–18. Petitioner presents evidence that Miyazawa teaches a processor that is in a low power state during sleep mode. Pet. 29–30 (citing Ex. 1008, 3:18–20, 9:67–10:2, 11:50–67).

Claim 1 recites “said speech recognition system configured to automatically switch from said sound activation mode to said speech recognition mode as a function of the amplitude of said electrical signals.” Ex. 1001, 52:18–22. Petitioner presents evidence that Miyazawa teaches a speech recognition system that automatically switches from sleep mode to speech recognition mode based on whether the amplitude of the electrical signals is equal to or greater than a threshold. Pet. 31–32 (citing Ex. 1008, Abstract, 3:13–17, 4:10–13, 10:8–21).

Claim 1 recites “an appliance control circuit which includes a transmitter, said appliance control circuit configured to receive said control signals from said speech recognition system and generate and automatically transmit one or more appliance control signals to said one or more appliances.” Ex. 1001, 52:23–28. Petitioner presents evidence that Bissonnette teaches an appliance control circuit with a transmitter that receives the control signals and generates and automatically transmits appliance control signals to one or more appliances. Pet. 32–33 (citing Ex. 1006, 7:4–12, 8:34–9:2, 25:19–30, 29:16–27, 34:20–35:4, 37:32–39:26).

At this stage of the proceeding, Patent Owner does not dispute that the combination of Bissonnette and Miyazawa teaches the limitations of claim 1. We address below whether an ordinarily skilled artisan would have had reason to combine the teachings of Bissonnette and Miyazawa.

- b. *Claims 2–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43*

Claims 21 and 41 are independent, and claims 2–4, 7, 9, 10, 12, 14, 16, 23–26, 28–31, 39, and 43 depend, directly or indirectly, from claim 1, 21, or 41. Petitioner presents evidence that the combination of Bissonnette and Miyazawa teaches the limitations of claims 2–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43. Pet. 33–65. At this stage of the proceeding, Patent Owner does not dispute that the combination of Bissonnette and Miyazawa teaches the limitations of claims 2–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43.

- c. *Reason to Combine*

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the teachings of Bissonnette and Miyazawa. Pet. 18–19 (citing Ex. 1003 ¶¶ 26–35, 53–54). Specifically, Petitioner contends that it would have been obvious “to replace Bissonnette’s switching functionality, which uses a manually operated voice key, with the automatic switching techniques taught by Miyazawa.” Pet. 18 (emphasis omitted). Petitioner presents evidence that 1) doing so “would have been more convenient”; 2) both references “were concerned with maximizing battery life . . . to reduce power drain”; and 3) combining the references “would have been, at least, the simple substitution of known elements . . . for another . . . to obtain the predictable result of automatic switching.” Pet. 18 (citing Ex. 1003 ¶¶ 26–32, 53; Ex. 1006, 11:28–31; Ex. 1008, 2:8–18, 2:45–53, 11:33–42). Further, Petitioner presents evidence that a person of ordinary skill in the art would have had a reasonable expectation of success in combining Bissonnette and Miyazawa. Pet. 19 (citing Ex. 1003 ¶¶ 28, 33–35, 54; Ex. 1006, 11:2–35).

Patent Owner responds that Miyazawa teaches that it would be more convenient to replace manual voice keys with automatic voice activation “in some types of speech recognition devices,” but Miyazawa “does not say that it is *always* or even *usually* a good idea.” Prelim. Resp. 48–49. And, according to Patent Owner, Petitioner does not “articulate any reasoning why a person of ordinary skill would have understood Miyazawa’s teaching to apply to the Bissonnette system or ones like it.” *Id.* at 49. Further, Patent Owner argues that Bissonnette requires a user to hold a remote control and look at a display while using the voice control functions, but Miyazawa does “not include any sort of visual display that the user needed to look at while interacting with the device.” *Id.* at 50–51. Patent Owner, therefore, concludes that Miyazawa’s teachings would not apply to Bissonnette’s system. *Id.* at 52.

On this record, Patent Owner’s argument is not persuasive. Patent Owner focuses on whether Miyazawa states specifically that its teachings apply to Bissonnette’s system, but “[t]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). As discussed above, Miyazawa provides a reason for using its teachings with other speech recognition systems, namely, that automatic voice activation is more convenient than manual voice keys. Pet. 18; Ex. 1008, 2:8–18. Further, Patent Owner does not identify specific evidence to support its argument that the proposed combination would not work because Bissonnette’s system requires a display. *See* Prelim Resp. 52–53. At this stage of the proceeding, Patent Owner only provides attorney argument, which is insufficient to rebut Petitioner’s evidence that a person of ordinary

skill in the art would have had a reasonable expectation of success in combining Bissonnette and Miyazawa. Pet. 19; Ex. 1003 ¶ 54; *see In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997).

Patent Owner responds that Bissonnette “does not say or even suggest that it would be desirable to improve the battery life” of its system because Bissonnette “*already has a solution for maximizing battery life.*” Prelim. Resp. 53. Thus, according to Patent Owner, Bissonnette does not provide “a motivation for a person of skill to look elsewhere for battery saving mechanisms.” *Id.* at 53–54. Patent Owner also responds that the proposed combination of Bissonnette and Miyazawa “would degrade battery life, not maximize it.” Prelim. Resp. 54. Specifically, Patent Owner argues that when using Bissonnette’s manual voice keys, the voice recognition components “are only brought out of idle/sleep mode when the user presses a ‘talk key’ because he or she *actually wants to use voice control functions.*” *Id.* Patent Owner argues that, in contrast, when using Miyazawa’s automatic voice activation, the voice recognition components “will be brought out of idle/sleep mode more frequently,” namely, “any time a sufficiently loud noise is picked up by the microphone.” *Id.*

On this record, Patent Owner’s arguments are not persuasive. Petitioner does not assert that Miyazawa would have improved battery life more than Bissonnette. *See* Pet. 18. Rather, Petitioner asserts that

[b]ecause both Bissonnette and Miyazawa were concerned with maximizing battery life by using idle and sleep modes to reduce power drain from the voice recognition components, a POSITA would have been motivated to look to analogous systems like Miyazawa to automate and improve on the inconvenience of Bissonnette’s manual switching.

*Id.* (emphasis omitted). In other words, Petitioner relies on a shared concern for maximizing battery life as a reason why a person of ordinary skill in the art would have understood Bissonnette and Miyazawa as relating to “analogous systems.” *Id.* Thus, in considering Petitioner’s asserted reasons for the proposed combination, we need not determine whether Miyazawa would have improved battery life more than Bissonnette.

Patent Owner responds that the proposed combination of Bissonnette and Miyazawa “could not possibly work.” Prelim. Resp. 56. Patent Owner argues that Bissonnette’s system includes three manual voice keys—a record key, a VCR key, and a channel key—each of which controls a separate voice function. *Id.* at 57–58. Patent Owner argues that Miyazawa’s system, on the other hand, only switches to a single speech recognition mode and “does not disclose any way of switching into a selected *one of multiple* modes of operation.” *Id.* at 59. Thus, according to Patent Owner, replacing Bissonnette’s three manual voice keys with Miyazawa’s single mode would result in an “inoperable” system because “[t]he switching mechanism would not be able to tell the system which of the three voice control modes to enter into.” *Id.* at 59–60. For this same reason, Patent Owner contends that Bissonnette teaches away from the proposed combination. *Id.* at 61–63.

On this record, Patent Owner’s argument is not persuasive. Patent Owner does not identify specific evidence to support its argument that Miyazawa’s automatic voice activation could not work with Bissonnette’s multiple voice control functions. *See id.* at 59–60. At this stage of the proceeding, Patent Owner only provides attorney argument, which is insufficient to rebut Petitioner’s evidence a person of ordinary skill in the art would have had a reasonable expectation of success in combining the

teachings of Bissonnette and Miyazawa. Pet. 19; Ex. 1003 ¶ 54; *see Geisler*, 116 F.3d at 1470.

d. *Summary*

For the foregoing reasons, Petitioner demonstrates a reasonable likelihood of prevailing in showing that claims 1–4, 7, 9, 10, 12, 14, 16, 21, 23–26, 28–31, 39, 41, and 43 would have been obvious over Bissonnette and Miyazawa.

2. *Obviousness of Claims 17 and 18 Over Bissonnette, Miyazawa, and Salazar*

Petitioner argues that claims 17 and 18 would have been obvious over Bissonnette, Miyazawa, and Salazar. Pet. 7. Petitioner identifies evidence indicating that the combination of Bissonnette, Miyazawa, and Salazar teaches the limitations of claims 17 and 18, and that a person of ordinary skill in the art would have had reason to combine those references. Pet. 65–67. Patent Owner does not raise any specific arguments relating to claims 17 and 18. On this record, Petitioner demonstrates a reasonable likelihood of prevailing in showing that claims 17 and 18 would have been obvious over Bissonnette, Miyazawa, and Salazar.

3. *Obviousness of Claims 19 and 20 Over Bissonnette, Miyazawa, and McCall*

Petitioner argues that claims 19 and 20 would have been obvious over Bissonnette, Miyazawa, and McCall. Pet. 7. Petitioner identifies evidence indicating that the combination of Bissonnette, Miyazawa, and McCall teaches the limitations of claims 19 and 20, and that a person of ordinary skill in the art would have had reason to combine those references. Pet. 68–71. Patent Owner does not raise any specific arguments relating to claims 19 and 20. On this record, Petitioner demonstrates a reasonable likelihood

of prevailing in showing that claims 19 and 20 would have been obvious over Bissonnette, Miyazawa, and McCall.

### III. CONCLUSION

Petitioner demonstrates a reasonable likelihood of prevailing in showing the unpatentability of at least one of the challenged claims of the '186 patent. At this stage of the proceeding, we have not made a final determination with respect to the patentability of any of the challenged claims.

### IV. ORDER

It is hereby

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–4, 7, 9, 10, 12, 14, 16–21, 23–26, 28–31, 39, 41, and 43 of the '186 patent is instituted with respect to all grounds of unpatentability 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 '186 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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