

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONOS, INC.,
Petitioner,

v.

GOOGLE LLC,
Patent Owner.

IPR2022-01594
Patent 9,812,128 B2

Before KEVIN F. TURNER, TERRENCE W. McMILLIN, and
SCOTT E. RAEVSKY, *Administrative Patent Judges*.

McMILLIN, *Administrative Patent Judge*.

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

I. INTRODUCTION

Sonos, Inc. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–3, 5–8, 10–13, and 15 of (the “challenged claims”) of U.S. Patent No. Patent 9,812,128 B2 (Ex. 1001, the “’128 patent”) pursuant to 35 U.S.C. § 311 *et seq.* Paper 1 (“Petition” or “Pet.”). Google LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Preliminary Response” or “Prelim. Resp.”).

With our authorization, the parties filed additional pre-institution briefing to address whether we should exercise our discretion under 35 U.S.C. § 325(d). Petitioner filed a “Reply to Patent Owner’s Preliminary Response” addressing this issue. Paper 7 (“Reply”). Patent Owner filed “Patent Owner’s Pre-Institution Sur-Reply.” Paper 8 (“Sur-reply”).

We have authority under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response shows that “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). After considering the Petition, the Preliminary Response, the Reply, and the Sur-reply and the evidence of record, we institute an *inter partes* review as to all of the challenged claims of the ’128 patent on the grounds of unpatentability presented in the Petition.

A. Related Proceedings

Petitioner states that “[Patent Owner] asserted, *inter alia*, the ’128 Patent and [a related] U.S. Patent 11,024,311¹] (the “’311 Patent”)[] against [Petitioner] in the following ITC and district court proceedings: *Certain Audio Players and Components Thereof*, Inv. No. 337-TA-1330; *Google LLC v. Sonos, Inc.*, No. 3:22-CV-04553 (N.D. Cal.) (“NDCA Action”).” Pet. 1–2, n.1 (formatting and footnote modified). Petitioner further states “[Patent Owner] has also asserted [related] U.S. Patents 10,134,398 and 10,593,330 against [Petitioner] in *Certain Audio Players and Components Thereof*, Inv. No. 337-TA-1329 and *Google LLC v. Sonos, Inc.*, No. 3:22-CV-04552 (N.D. Cal.).” Pet. 2. Patent Owner also identifies the above ITC proceeding and the litigation in the Northern District of California as “judicial and administrative matters that would be affected by[] a decision in this proceeding.” Paper 4, 2.

B. The ’128 Patent

The ’128 patent is titled “Device Leadership Negotiation Among Voice Interface Devices.” Ex. 1001, code (54). The patent “relates generally to voice interfaces and related devices, including but not limited to methods and systems for coordination amongst multiple voice interface devices.” *Id.* at 1:27–30.

The described background regards “[e]lectronic devices integrated with microphones . . . [that] collect voice inputs from users and implement voice-activated functions according to the voice inputs . . . (e.g., Siri, Google

¹ This patent is challenged in IPR2022-01592 in which the Petition was filed on the same day as the Petition in this proceeding and in which the same art is asserted against the challenged claims.

Assistant).” *Id.* at 1:34–37. According to this description, “[a] location (e.g., a room or space within a home) may include multiple devices that include voice assistant systems and one or more users of such devices.” *Id.* at 1:43–45. And, “for a voice assistant device to be able to handle multiple users gracefully,” it is “desirable for there to be a leader amongst the voice assistant devices that . . . respond[s] to the user's voice inputs” and “for a voice assistant device to include noise mitigation measures . . . at a noisy location.” *Id.* at 1:47–55.

A summary of the disclosed solution is:

The device and/or the server system may be configured to identify a speaker of a voice input based on comparisons to voice models, and to personalize responses to the identified speaker. The device and/or the server system may also be configured to negotiate leadership amongst multiple devices for response to a speaker. The device and/or the server system may further be configured to detect that an environment around the device is sufficiently noisy where an alternative method, to a hotword voice input, of waking up the device is advisable.

Id. at 1:59–2:5. Described implementations add:

. . . [A] voice-activated electronic device identifies a speaker of a voice input as one of one or more associated or registered users. . . .

. . . [M]ultiple voice-activated electronic devices negotiate a leader amongst themselves to respond to voice inputs from a user. The negotiation may be based on which device detected the voice input the best, or which device is the closest to the user. Additionally, if the voice input is particularly relevant to one of the devices, that device may be selected to respond even if it would otherwise not be selected for response[.] . . .

[A] voice-activated device determines whether the surrounding noise is sufficiently interfering with detection of spoken hotwords for waking up the device[.] . . . If the noise is

sufficiently interfering, the device indicates such and gives the user a hint to use an alternative way of waking up the device or other noise mitigation measures.

Id. at 5:27–29, 5:38–45, 5:52–54, 5:58–61.

In an “Example Device Leadership Negotiation” (*id.* at 20:43 (heading)):

[E]ach of the electronic devices determines a level of quality of the respective sample of the voice input captured by the electronic device. The quality level may be expressed as a score or some other value. . . . [C]riteria for evaluating the quality of a voice sample include, for example, loudness or amplitude of the sample, presence or absence of noise (e.g., cross-talk, hissing) and corresponding level, presence or absence of distortion (e.g., echo) and corresponding level, frequency profile of the sample, and so forth.

. . . .

When an electronic device 1002 receives the scores from the other electronic devices 1002, the electronic device compares its quality score with the scores from the other devices. If its score is not the best (e.g., highest) amongst the scores, the electronic device forgoes outputting responses . . . [and] forgo[s] receiving, detecting, and processing subsequent voice inputs from the user.

Id. at 21:1–4, 21:15–22, 21:58–22:10. Further, “[t]he leader determination is performed in response to a user’s voice input to awaken the device (e.g., a voice input that includes the hotword)[,] . . . may be performed in response to each voice input from the user or at intervals of a predefined number of voice inputs,” and “may be overridden based on additional criteria.” *Id.* at 22:11–16, 22:21–23.

In an “Example Process for Noise Mitigation” (*id.*, 31:17 (heading)), an “electronic device determines . . . a current noise profile of [its] environment” (*id.*, 31:29–30), “determin[es] that the noise profile interferes

with the voice-based affordance, . . . [and accordingly] presents . . . a hint to a user to use an affordance of the plurality of affordances other than the voice-based affordance to awaken the electronic device” (*id.* at 31:47–53). The “ways or affordances to wake up the device[,] besides speaking the hotword[,] . . . may include . . . activating a predefined button or touch sensor (e.g., a touch sense array) on the electronic device 190.” *Id.* at 12:9–13.

C. Challenged Claims

Petitioner challenges claims 1–3, 5–8, 10–13, and 15 of the ’128 patent. Pet. 1. The ’128 patent has three challenged independent claims: a “method” claim (claim 1), a “device” claim (claim 6), and a “non-transitory computer-readable storage medium” claim (claim 11). Ex. 1001, 35:54–36:14, 36:31–60, 37:11–38:8. Claim 1 recites:

1. A method, comprising:
 - at a first electronic device of a plurality of electronic devices, each electronic device of the plurality of electronic devices comprising one or more microphones, a speaker, one or more processors, and memory storing one or more programs for execution by the one or more processors:
 - detecting a voice input;
 - determining a quality score for the detected voice input;
 - communicating the quality score to the other devices of the plurality of electronic devices;
 - receiving quality scores generated by the other devices of the plurality of electronic devices for detection of the voice input by the other devices;
 - in accordance with a determination that the quality score generated by the first electronic device is the highest amongst the generated quality score and received quality scores for the voice input, outputting an audible and/or a

visual response to the detected voice input, wherein the other devices of the plurality of electronic devices forgo outputting an audible response to the detected voice input; and

in accordance with a determination that the quality score generated by the first electronic device is not the highest amongst the quality scores for the voice input generated by the plurality of electronic devices, forgoing outputting a response to the detected voice input.

Id. at 35:54–36:14.

D. The Asserted Grounds

Petitioner challenges claims 1–3, 5–8, 10–13, and 15 of the '128 patent based on the grounds set forth in the table below.

Ground	Claims Challenged	35 U.S.C.	Reference(s)
1	1–3, 5–8, 10–13, 15	§ 102	Rosenberger ²
2	5, 10, 15	§ 103	Rosenberger, Kim ³

Petitioner states that Rosenberger and Kim qualify as prior art respectively under 35 U.S.C. §102(a)(1) (AIA) & §102(a)(2) (AIA). Pet. 4. Patent Owner does not challenge the prior art status of Rosenberger and Kim. *See generally* Prelim. Resp.

Petitioner additionally relies on the Declaration from Dr. Michael T. Johnson (Ex. 1002, “Johnson Decl.”), which provides evidence in support of the contentions in the Petition. Patent Owner, at least at this stage, has not supported its arguments with any testimonial evidence. *See generally* Prelim. Resp. As such, the testimony of Dr. Johnson is un rebutted by any contrary testimony.

² US 8,340,975 B1, published Dec. 25, 2012 (Ex. 1003).

³ US 2013/0238326 A1, published Sep. 12, 2013 (Ex. 1014).

II. ANALYSIS

A. Claim Construction

We construe claims using the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), as articulated by the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*), and subsequent cases. *See* 37 C.F.R. § 42.100(b). Under the standard set forth in *Phillips*, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *See Thorner v. Sony Comput. Ent. Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012). There is a “heavy presumption,” however, that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citation omitted).

Petitioner asserts that no claim construction is necessary. Pet. 23 (“For purposes of this IPR, the Challenged Claims do not require construction.”). Patent Owner does not address claim construction. *See generally* Prelim. Resp.

At least with regard to making this decision on institution, we agree with Petitioner that no claim construction is necessary. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (explaining that construction is needed only for terms that are in dispute, and only as necessary to resolve the controversy).

B. Legal Standards

In order for a prior art reference to serve as an anticipatory reference, it must disclose every limitation of the claimed invention, either explicitly or

inherently. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). Anticipation “requires that every element and limitation of the claim was previously described in a single prior art reference, either expressly or inherently, so as to place a person of ordinary skill in possession of the invention.” *Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1082 (Fed. Cir. 2008) (citing *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1379 (Fed. Cir. 2003); *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1267–69 (Fed. Cir. 1991)). “[U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008).

A patent claim is unpatentable as obvious if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when presented, objective evidence of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Technology, Inc.*, 815 F.3d 1356,

1363 Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). Petitioners cannot satisfy their burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

C. Level of Ordinary Skill in the Art

With regard to the level of ordinary skill in the art, Petitioner contends a “POSITA [(person of ordinary skill in the art)] in the technology field of the ’128 Patent would have had the equivalent of a four-year degree from an accredited institution (typically denoted as a B.S. degree) in electrical or computer engineering, or a related field, and approximately 2–4 years of experience in the field of voice and/or audio processing, or an equivalent level of skill, knowledge, and experience.” Pet. 22 (citing Ex. 1002 (Johnson Decl.), ¶¶ 63–65.). Patent Owner does not present a position on the level of ordinary skill in the art at the time of the invention. *See generally* Prelim. Resp.

Petitioner’s proposal is consistent with the technology described in the Specification of the ’128 patent and the cited prior art. In order to determine whether Petitioner has demonstrated a reasonable likelihood of showing the unpatentability of at least one of the challenged claims, we adopt Petitioner’s proposed level of skill in the art.⁴

⁴ Any determination, no matter how designated in this decision (except our decision to institute), is preliminary and non-binding. We have not heard from Patent Owner on any issue except discretionary denial under § 325(d), and we wish to have the record developed before rendering any binding determination, finding, or conclusion.

D. Challenges Based on Rosenberger

Petitioner contends that claims 1–3, 5–8, 10–13, and 15 are anticipated by Rosenberger and that claims 5, 10, and 15 are also rendered obvious by a combination of Rosenberger and Kim. Pet. 4. The Petition includes a detailed element-by-element mapping of the limitations in the challenged claims to teachings in the cited art and supports the mappings with references to Dr. Johnson’s Declaration. Pet. 23–69. Patent Owner does not contest Petitioner’s showings as to the assertions of anticipation and obviousness. *See generally* Prelim. Resp.⁵

We determine there is a reasonable likelihood that the Petitioner will establish that at least claim 1 of the ’128 patent is anticipated by Rosenberger. We provide a summary of the teachings of Rosenberger and then provide an analysis of the element-by-element showing in the Petition for claim 1.

1. Rosenberger (Ex. 1003)

Rosenberger is titled “Interactive Speech Recognition Device and System for Hands-Free Building Control.” Ex. 1003, code (54). Rosenberger relates to “relates to improvements in automated control systems” and, “[m]ore particularly, . . . to improvements in speech-recognizing control devices that respond to oral commands from a system user.” *Id.* at 1:8–13.

⁵ The Patent Owner’s Preliminary Response and Sur-reply address only discretionary denial under § 325(d). *See generally* Prelim. Resp., Sur-reply. As such, the present record contains no arguments disputing Petitioner’s showing relating to the merits of the patentability challenges and our analysis of the patentability challenges is limited to considering the undisputed contentions in the Petition.

The described prior art regards speech-recognition for waking such systems; e.g., a “speech password mode . . . constantly listening for one or more passwords . . . referred to as ‘trigger phrases’” and a “circle recognition mode . . . constantly listening for a complete set of allowable command phrases.” *Id.* at 2:4–11. According to the description, “a single control device may not be capable of reliably recognizing a speech command or trigger phrase from all locations throughout the given room” due to “ambient noise, room size, microphone quality, device location, room acoustics, furniture positions and a variety of other factors.” *Id.* at 2:26–30. For “modules in reasonable proximity to one another, [e.g.,] several per room, . . . a given hands-free speech command would frequently be recognized simultaneously by two or more neighboring speech recognition modules . . . with potentially undesirable or adverse effects” such as a “duplicate response” (e.g., twice lowering a thermostat). *Id.* at 2:45–60.

A summary of the disclosed solution is:

According to a preferred embodiment, the control device of the invention includes (a) a microphone for converting spoken words, emanating from a system user located within the building space, to corresponding electrical signals; (b) a programmable microcontroller, operatively coupled to the microphone and comprising embedded software and circuitry serving to (i) recognize from the electrical signals when a speech command from an expected vocabulary or grammar has likely been spoken, and (ii) to act thereon to first produce a weighted signal representing the quality of a just-recognized speech command, and then produce, only in the event the value of said weighted signal exceeds the respective values of all weighted signals produced by other devices within said building space that simultaneously recognized the same speech command, predetermined system control signals by which a desired effect, reflective of the speech commands, is achieved

within the building space by system controllers or automated mechanisms that respond to such system control signals; (c) a transmitter operatively coupled to the microcontroller for selectively transmitting the weighted signal and the predetermined system control signals into the building space; (d) a receiver, operatively coupled to the microcontroller, for receiving weighted signals emanating from one or more other control devices within the building space; and (e) audio output circuitry through which the microcontroller can transmit audible sounds to interact with and provide indications of the system status to the system user.

A preferred characteristic of the control device of the invention is that, within a predetermined time interval after it has produced the weighted signal in response to recognizing a given speech command, the microcontroller operates to compare the value of this signal with the respective value(s) of the weighted signals produced by all other control devices that have been triggered by the same speech command at the same time and have transmitted their respective weighted signals to such microcontroller. In the event the value of such weighted signal exceeds the respective values of all other weighted signals with which it has been compared, the microcontroller proceeds in handling the given speech command. Otherwise, it defers handling of the speech command to the other devices and reverts to a “listening” mode awaiting subsequent speech commands.

Id. at 4:6–47.

Rosenberger issued on December 25, 2012, based on an application filed on October 4, 2011. Ex. 1003, codes (22), (45). The earliest priority date claimed for the ’128 patent is based on a provisional application filed on October 9, 2014. Ex. 1001, code (60). Rosenberger is prior art to the ’128 patent.

2. *Claim 1*

1. *A method, comprising:
at a first electronic device of a plurality of electronic devices,
each electronic device of the plurality of electronic devices
comprising one or more microphones, a speaker, one or
more processors, and memory storing one or more programs
for execution by the one or more processors:*

Petitioner maps the recited electronic device (“first” and “each”) and included microphone, speaker, processor/s, and collective memory and programs respectively to Rosenberger’s control device D (also W1, W2, . . . , T1, T2, . . .) and the included microphone 16, internal speaker 19, microcontroller 10, and collective persistent memory 14 and embedded speech-recognition software 12. Pet. 23–25 (citing Ex. 1002 (Johnson Decl.) ¶¶ 77–86; Ex. 1003, 4:6–32, 4:54–60, 6:40–43, 6:62–7:4, 7:5–24, 7:61–8:16, 9:37–49, 12:28–31, Figs. 1, 3).

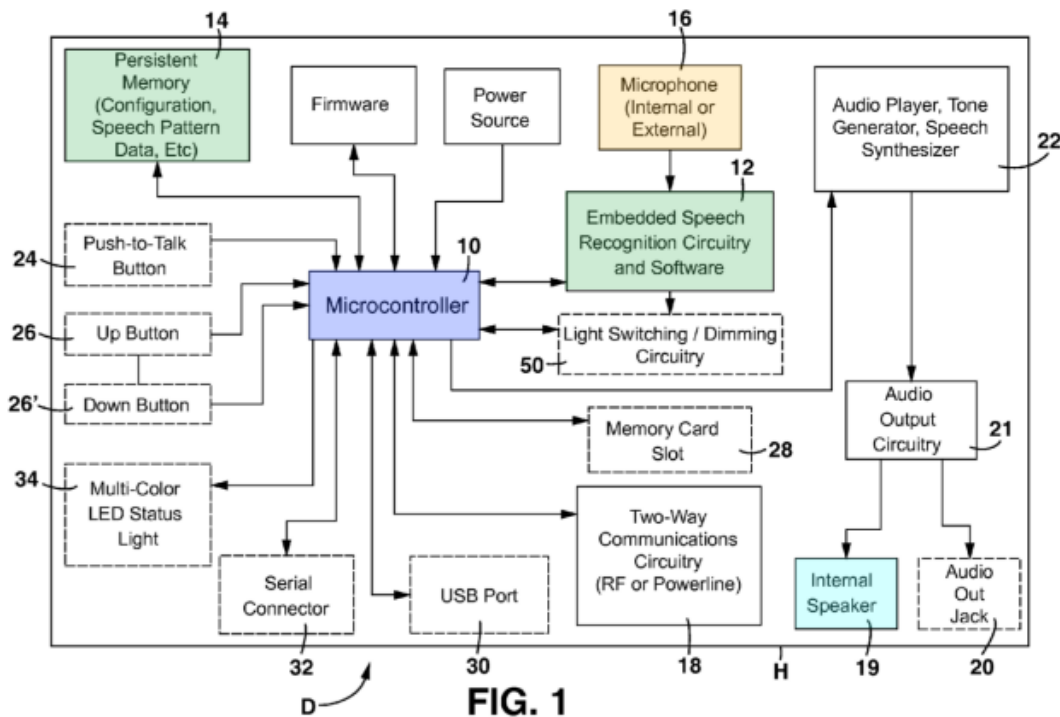
The Petition provides an annotated version of Figure 3 of Rosenberger, reproduced below, in support of the contention that Rosenberger discloses the recited “electronic devices.”



Pet. 24 (electronic control devices boxed in red).⁶ Figure 3 depicts “a residential floor plan showing a plurality of interactive speech recognition control devices at various locations that provide totally hands-free speech control of various automated mechanisms throughout the interior space.” Ex. 1003, 5:41–44.

The Petition provides an annotated version of Figure 1 of Rosenberg, reproduced below, in support of the contention that the disclosed electronic devices comprise one or more microphones, a speaker, one or more processors, and memory storing one or more programs for execution by the one or more processors.

⁶ In the Petition, certain text is colored to correspond to colored annotations added to the figures. *See, e.g.*, Pet. 23 (colored text), 24 (colored annotations added to Figure 3). In quoting the passages in the Petition with colored text, all text coloration outside of the figures in the Petition has been removed.



Pet. 25. Figure 1 depicts, “an interactive speech recognition control device.”
Ex. 1003, 5:33–34. The Petition states:

With reference to FIG. 1 (reproduced [above]),
Rosenberger explains that each “control device” (the claimed *electronic device*) –which Rosenberger sometimes refers to as “device D”– includes “a uniquely-programmed microcontroller 10 having embedded speech recognition circuitry and software 12, a persistent internal memory 14 (e.g. non-volatile flash memory) for storing speech pattern data (phoneme expressions, etc) and the like, a microphone 16 through which speech commands from the user are received” and “an internal speaker 19 through which the microcontroller can transmit, via audio output circuitry 21, audio signals from an audio source 22 that can incorporate beeps and tones, prerecorded audio and synthesized speech for user interaction.”

Pet. 24–25.

Petitioner’s undisputed contention that all the elements of this limitation are disclosed in Rosenberg is well-supported. On the current record, we determine that Rosenberg discloses this claim limitation.

detecting a voice input;

Petitioner maps the recited detecting to Rosenberg’s triggered control devices D each recognizing the same spoken trigger (e.g., “Hello Voice Control”). Pet. 27–29 (citing Ex. 1002 (Johnson Decl.) ¶¶ 87–93); Ex. 1003, 1:53–2:9, 2:56–59, 4:6–14, 6:67–7:1, 7:19–28, 8:16–24, 8:44–49, 9:57–61, 14:10–18, 11:37–45, Figs. 3, 4 (“Speech Trigger or Command Recognized”).

Petitioner contends that, during prosecution of the application for a related patent, Patent Owner “conceded that Rosenberg discloses this element.” Pet. 30 (citing Ex. 1005, 78 (“Rosenberger discloses that when multiple devices T6, T7, W8, W9 within an environment all recognize a same trigger phrase, ‘Hello Voice Controller,’ each device will calculate a ‘weighted signal.’”).

Petitioner’s undisputed contention that this limitation is disclosed in Rosenberg is well-supported. On the current record, we determine that Rosenberg discloses this claim limitation.

determining a quality score for the detected voice input;

Petitioner maps the recited determining to Rosenberg’s triggered control devices D each calculating its weighted signal. Pet. 30–32 (citing Ex. 1002 (Johnson Decl.) ¶¶ 94–101; Ex. 1003, 4:6–16, 10:34–47, 10:34–41, 10:34–41, Fig. 4 (“Calculate Weighted Signal”). Rosenberg states:

[T]he control device of the invention includes (a) a microphone for converting spoken words, emanating from a system user located within the building space, to corresponding electrical

signals; (b) a programmable microcontroller, operatively coupled to the microphone and comprising embedded software and circuitry serving to (i) recognize from the electrical signals when a speech command from an expected vocabulary or grammar has likely been spoken, and (ii) to act thereon to ***first produce a weighted signal representing the quality of a just-recognized speech command.***

Ex. 1003, 4:6–16.

Petitioner shows that, during prosecution of an application for a related patent, Patent Owner acknowledged that Rosenberger discloses “each device will calculate a ‘weighted signal’” upon recognizing a trigger phrase. Pet. 33 (citing Ex. 1005, 78–79).

Petitioner’s undisputed contention that all the elements of this limitation are disclosed in Rosenberger is well-supported. On the current record, we determine that Rosenberger discloses this claim limitation.

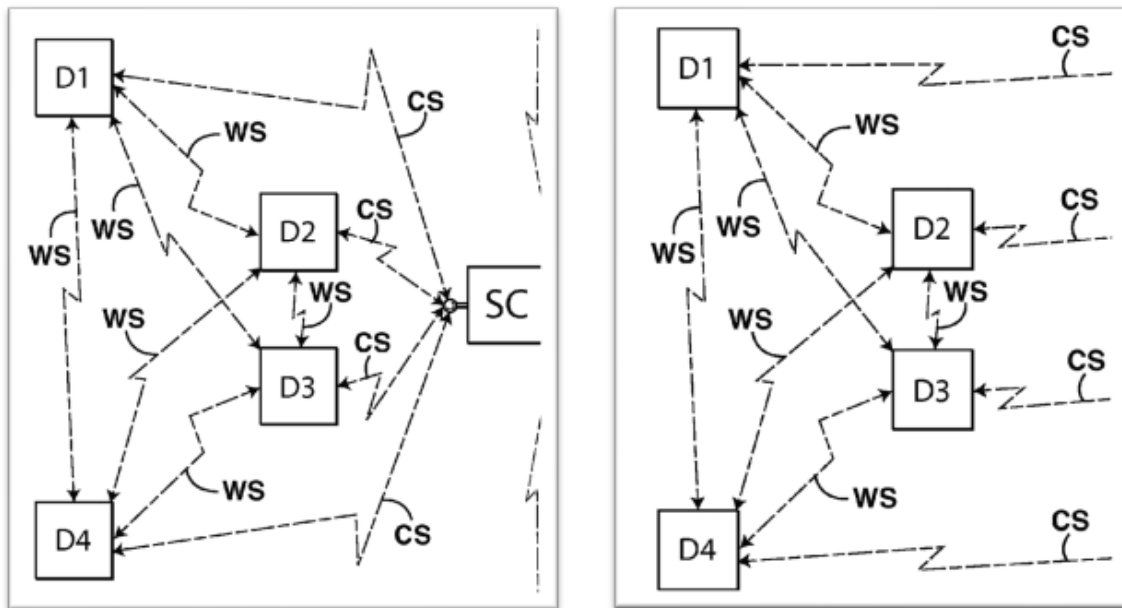
communicating the quality score to the other devices of the plurality of electronic devices;

Petitioner maps the recited communicating to Rosenberger’s triggered control devices D each providing its weighted signal to the other control devices D. Pet. 33–36 (citing Ex. 1002 (Johnson Decl.) ¶¶ 102–108; Ex. 1003, 4:6–26, 11:45–59, 12:13–17, Figs. 4 (“Broadcast Weighted Signal”), 9, 10). Rosenberger states:

[T]he control device of the invention includes . . . (c) a transmitter operatively coupled to the microcontroller for selectively ***transmitting the weighted signal*** and the predetermined system control signals into the building space; (d) a receiver, operatively coupled to the microcontroller, for ***receiving weighted signals emanating from one or more other control devices*** within the building space.

Ex. 1003, 4:6–29 (emphasis added).

The Petition provides cropped versions, reproduced below, of Figures 9 and 10 of Rosenberg to “illustrate ‘control devices D1, D2, D3, and D4 each communicating ‘numeric weighted signals’ (WSs) to multiple other ‘control devices.’” Pet. 34.



Figures 9 and 10 of Rosenberg depict that “a network broadcast effectively links all interactive speech control devices in a given space, allowing each device to send its weighted signal to each other device.” Ex. 1003, 11:48–51.

Petitioner contends that, during prosecution of the application for a related patent, Patent Owner conceded that Rosenberg discloses this limitation. Pet. 36 (citing Ex. 1005, 78–79 (“Rosenberger discloses that when multiple devices T6, T7, W8, W9 within an environment all recognize a same trigger phrase, ‘Hello Voice Controller,’ each device will calculate a ‘weighted signal’ and communicate the weighted signal to a coordinating controller (or to each other in in [sic] the embodiments of FIGS. 9 and 10.”)).

Petitioner's undisputed contention that all the elements of this limitation are disclosed in Rosenberg is well-supported. On the current record, we determine that Rosenberg discloses this claim limitation.

receiving quality scores generated by the other devices of the plurality of electronic devices for detection of the voice input by the other devices;

Petitioner maps the recited receiving to Rosenberg's control devices D each receiving the weighted signals of the triggered control devices D. Pet. 37–38 (citing Ex. 1002 (Johnson Decl.) ¶¶ 109–115; Ex. 1003, 4:6–29, 11:45–59, 12:13–17, Figs. 3, 4, (“Monitor Device Broadcasts Until Timer Expires” and “Read Weighted Signal from Message”), 9, 10). Rosenberg states, “[T]he control device of the invention includes . . . (d) a receiver, operatively coupled to the microcontroller, for ***receiving weighted signals emanating from one or more other control devices*** within the building space.” Ex. 1003, 4:6–29 (emphasis added). With further regard to this limitation, the Petition states:

As explained before, Rosenberg discloses that each “control device” “sends its weighted signal to each of the other interactive speech recognition control devices connected to the same network using a broadcast or group multicast messaging technique” and “[i]mmEDIATELY after broadcasting its weighted signal, a triggered [control] device waits a predetermined amount of time while it monitors weighted signal messages that may have been simultaneously broadcasted from other like devices.” [Ex. 1003], 11:45-59.

As shown above, Rosenberg's FIGs. 9 and 10 illustrate “control devices” D1, D2, D3, and D4 each receiving “numeric weighted signals” (WSs) from multiple other “control devices.” *Id.*, FIGs. 9-10, 11:48-51 (“As schematically illustrated in FIG. 9 and FIG. 10, a network broadcast effectively links all interactive speech recognition control devices in a given space,

allowing each device to send its weighted signal to each other device.”).

As also shown above, Rosenberger describes an example with reference to FIG. 3 where (i) “person P2 issues a speech command trigger such as ‘Hello Voice Control’,” (ii) control “devices T2, T3 and W4” are all “triggered,” and (iii) “[e]ach of these devices [] immediately calculate and broadcast their respective weighted signals to all control devices.” *Id.*, 12:13-17.

Pet. 37–38.

And, here again, Petitioner contends that, during prosecution of the application for a related patent, Patent Owner conceded that Rosenberger discloses this limitation. Pet. 39 (citing Ex. 1005, 78–79 (“Rosenberger discloses that when multiple devices T6, T7, W8, W9 within an environment all recognize a same trigger phrase, ‘Hello Voice Controller,’ each device will calculate a ‘weighted signal’ and communicate the weighted signal to a coordinating controller (or to each other in in [sic] the embodiments of FIGS. 9 and 10.”)).

Petitioner’s undisputed contention that all the elements of this limitation are disclosed in Rosenberger is well-supported. On the current record, we determine that Rosenberger discloses this claim limitation.

in accordance with a determination that the quality score generated by the first electronic device is the highest amongst the generated quality score and received quality scores for the voice input, outputting an audible and/or a visual response to the detected voice input, wherein the other devices of the plurality of electronic devices forgo outputting an audible response to the detected voice input; and

Petitioner maps the recited outputting and forgoing thereof respectively to the triggered control devices D each handling the trigger (i.e.,

requests or fulfills a respective speech command) only if having the highest weighted signal. Pet. 39–43 (citing Ex. 1002 (Johnson Decl.) ¶¶ 116–123; Ex. 1003, 3:3–12, 4:3–5, 4:16–24, 4:29–32, 4:41–44, 4:41–44, 4:41–44, 4:60–67, 7:12–16, 7:61–65, 8:16–39, 8:44–46, 9:1–16, 11:59–12:23, 12:19–27, 14:38–45, 16:3–23, Figs. 3, 4 (“Is Received Weighted Signal > My Weighted Signal[? A: No]”). The Petition states:

Rosenberger discloses that (i) each “control device” is configured to “proceed in handling the given speech command” only in the event that the given control device determines that the value of its WS value (that amounts to the claimed *quality score for the detected voice input* as explained above . . . exceeds the respective values of all WSs produced by other control devices and (ii) only one of the “control devices” handles the given speech command. Ex.1003, 4:16-24 (“[P]roduce, **only in the event** the value of [the given control device’s] weighted signal **exceeds** the respective values of all weighted signals produced by other devices within [a] building space that simultaneously recognized the same speech command, predetermined system control signals by which a desired effect, reflective of the speech commands, is achieved”), 4:41-44 (“**In the event** the value of [the given control device’s] weighted signal **exceeds** the respective values of all other weighted signals with which it has been compared, the [given control device] proceeds in handling the given speech command.”), 9:27-36 (“As noted above, when a speech command trigger is recognized by more than one control device at the same instant, it is important that **only one** of the devices responds to (interacts with) the user and handles the user’s request.... Thus, this duplicate response problem must be avoided.”), 11:27-31.

In example embodiments, the “control device” that makes such a determination “proceeds to handle the speech command by interacting with the user as needed and subsequently transmitting the appropriate system control signals....” *Id.*, 11:59-12:3. Rosenberger explains that the “control device” may “interact with the user” audibly and/or

visually, such as by outputting a beep or tone, audibly prompting the user with a follow-up question, and/or changing its status light. *Id.*, 3:3-12, 4:3-5, 4:29-32, 4:60-67, 7:61-65, 8:20-32, 8:44-46, 14:38-45. For instance, Rosenberger explains that “[u]pon receiving and recognizing a speech trigger phrase and **determining that it is in a better position to handle subsequent user interaction than any other device** that simultaneously recognized the same speech trigger phrase (see device coordination discussion below), ... **the device beeps, changes its status light 34 or plays a pre-recorded or synthesized audio message** (e.g. ‘How may I help you?’) through speaker 19 and/or 20 to prompt the user to say one of the speech commands from a known vocabulary or grammar stored in the speech pattern memory 14.” *Id.*, 8:16-32.

Id. at 39–41.

And, once again, Petitioner contends that, during prosecution of the application for a related patent, Patent Owner conceded that Rosenberger discloses this limitation. Pet. 43 (citing Ex. 1005, 78–79 (“Rosenberger discloses that . . . The coordinating controller (or the devices arbitrate among one another in the embodiments of FIG. 9 and 10) chooses the device W8 with the highest weighted signal to handle a speech command.”)).

Petitioner’s undisputed contention that all the elements of this limitation are disclosed in Rosenberger is well-supported. On the current record, we determine that Rosenberger discloses this claim limitation.

in accordance with a determination that the quality score generated by the first electronic device is not the highest amongst the quality scores for the voice input generated by the plurality of electronic devices, forgoing outputting a response to the detected voice input.

Petitioner maps the recited forgoing to the triggered control devices D each not handling the trigger if not having the highest weighted signal. Pet.

44–45 (citing Ex. 1002 (Johnson Decl.) ¶¶ 124–129); Ex. 1003, 4:41–47, Fig. 4 (“Is Received Weighted Signal > My Weighted Signal[? A: Yes]”).

The Petition states:

Rosenberger discloses that, when a given “control device” determines that the value of its WS value does not exceed the respective values of all WSs produced by other “control devices,” the given “control device” “defers handling of the speech command to the other devices,” thereby forgoing responding to the speech command.

Pet. 44 (citing Ex. 1003, 4:41–47). The cited passage in Rosenberger states:

In the event the value of such weighted signal exceeds the respective values of all other weighted signals with which it has been compared, the microcontroller proceeds in handling the given speech command. Otherwise, it defers handling of the speech command to the other devices and reverts to a “listening mode,” awaiting subsequent speech commands.

Ex. 1003, 4:41–47.

As with the preceding limitations, Petitioner contends that, during prosecution of the application for a related patent, Patent Owner conceded that Rosenberger discloses this limitation. Pet. 46 (citing Ex. 1005, 78–79 (“Rosenberger discloses that . . . The coordinating controller (or the devices arbitrate among one another in the embodiments of FIG. 9 and 10) chooses the device W8 with the highest weighted signal to handle a speech command.”)).

Petitioner’s undisputed contention that all the elements of this limitation are disclosed in Rosenberger is well-supported. On the current record, we determine that Rosenberger discloses this claim limitation.

Summary as to Claim 1

In the absence of any contradictory arguments or evidence, we determine that Petitioner has shown a reasonable likelihood of establishing the unpatentability of claim 1 as anticipated by Rosenberg. Although we appreciate that Patent Owner has not yet presented any arguments or evidence on the merits of Petitioner’s challenge to claim 1 as anticipated by Rosenberg, this challenge appears strong. On that basis, we determine that the information presented in the Petition demonstrates a reasonable likelihood that at least one of the claims challenged in the petition is unpatentable and that *inter partes* review should be instituted.

3. *Claims 6 and 11*

Petitioner also challenges independent claims 6 and 11 of the ’128 patent as anticipated by Rosenberg. Pet. 4, 46–49. With regard to claim 6, the Petition states that “[i]ndependent claim 6 recites a *first electronic device* configured to perform the same recited functions of independent claim 1” and Petitioner relies on its showing for claim 1. *Id.* at 46, 47 (“Rosenberger discloses claim 6 for the same reasons it discloses claim 1.”). With regard to claim 11, the Petition states that “[i]ndependent claim 11 recites a *non-transitory computer readable storage medium storing one or more programs comprising instructions* for performing the same recited functions of independent claim 1” and Petitioner relies on its showing for claim 1. *Id.* at 47, 49 (“Rosenberger discloses claim 11 for the same reasons it discloses claim 1.”). We determine that Petitioner has shown a reasonable likelihood

of establishing the unpatentability of claims 6 and 11 as anticipated by Rosenberg for the reasons discussed above with regard to claim 1.

4. *Claims 2, 7, and 12*

Petitioner also challenges claims 2, 7, and 12 as anticipated by Rosenberg. Pet. 4, 49–50. Claims 2, 7, and 12 recite:

the plurality of electronic devices is communicatively coupled through a local network; and the communicating and receiving are performed through the local network.

Ex. 1001, 36:15–19, 36:61–65, 38:9–13. Petitioner maps the recited local network to Rosenberg’s mechanisms for the above-discussed communications of weighted signals between the control devices D. Pet. 49–50 (citing Ex. 1002 (Johnson Decl.) ¶¶ 137–145; Ex. 1003, 1:60–64, 4:6–29, 6:14–21, 7:32–45, 7:48–56, Figs. 1, 9, 10).

With regard to Rosenberg disclosing the electronic devices being communicatively coupled through a local network, the Petition (*id.* at 49) quotes the following passage from Rosenberg:

Disclosed hereinbelow is a relatively small, low-cost, self-contained, human interactive speech recognition control device (shown in FIG. 1) that combines embedded speech recognition technology with **wireless (or power line) networking technology** to provide reliable “hands-free” voice control throughout any home or commercial building having controllable automation systems, appliances, electronic equipment or machines (i.e. “automated mechanisms”).

Ex. 1003, 6:14–21 (emphasis added). The Petition also states:

Rosenberger explains that the local network could take the form of a ZigBee or Wi-Fi network, among other examples. [Ex. 1003], 7:32–45, 7:48–56. With respect to ZigBee, Rosenberg explains that “ZigBee is a registered trademark of

ZigBee Alliance and refers to a low-cost, low-power wireless RF (radio frequency) **mesh networking standard** that is widely used in wireless building control and monitoring applications.” *Id.*, 1:60-64. With respect to Wi-Fi, Rosenberger explains that “Wi-Fi is a registered trademark owned by the Wi-Fi Alliance, and it refers to **wireless local area network (WLAN)** products that are based on the Institute of Electrical and Electronics Engineers’ (IEEE) 802.11 standards.” *Id.*, 7:48-51.

Pet. 49–50.

With regard to the devices communicating and receiving through the local network, the Petition states:

Rosenberger discloses that each “control device” is configured to communicate a WS value and receive WS values from other “control devices” through the local network. *Id.*, 4:6-29 (“According to a preferred embodiment, the control device of the invention includes ... (c) a transmitter ... for selectively transmitting the weighted signal and the predetermined system control signals into the building space; (d) a receiver ... for receiving weighted signals emanating from one or more other control devices within the building space”), 11:45-51 (“[A given control device] then sends its weighted signal to each of the other interactive speech recognition control devices **connected to the same network** using a broadcast or group multicast messaging technique. As schematically illustrated in FIG. 9 and FIG. 10, **a network broadcast effectively links all interactive speech recognition control devices** in a given space, allowing each device to send its weighted signal to each other device.”).

Id. at 50.

Petitioner’s contentions with regard to claims 2, 7, and 12 are well-supported. We determine that Petitioner has shown a reasonable likelihood

of establishing the unpatentability of claims 2, 7, and 12 as anticipated by Rosenberg.

5. *Claims 3, 8, and 13*

Petitioner also challenges claims 3, 8, and 13 as anticipated by Rosenberg. Pet. 4, 51–52. Claims 3, 8, and 13 recite:

the quality score comprises a confidence level of detection of voice input.

Ex. 1001, 36:20–21, 36:66–67, 38:14–16. Petitioner maps the recited confidence level to Rosenberg’s control device D calculating its weighted signal based on a “microphone signal strength (SS)” and “recognition confidence (RC).” Pet. 51–52 (citing Ex. 1002 (Johnson Decl.) ¶¶ 146–152); Ex. 1003, 10:23–33, 10:59–67).

With regard to Rosenberg disclosing the additional limitation set forth in claims 3, 8, and 13, the Petition states:

Rosenberger describes embodiments where the numeric WS comprises two values: (i) a “signal strength” (SS) value and (ii) a “recognition **confidence**” (RC) value. . . .

According to Rosenberger, the RC value is “a numeric value the embedded speech recognition circuitry and software 12 produces upon **successfully recognizing** a speech command” and “refers to the speech recognition algorithm’s calculated **probability** that a **correct match** (i.e. **correct** recognition) has occurred between the electrical output signals produced by the microphone in response to the spoken words of a user and the expected speech patterns, signatures and/or phonemes of the just-recognized speech command or grammar.” Ex.1003, 10:59- 67; *see also id.*, 10:23-33 (“[E]ven though unit T1 is closest to person P1, unit W3 may hear the person more clearly as a result of additional background noise entering device T1’s microphone from television TV1. The embedded speech recognition circuitry and software 12 inside T1 may consequently be less **confident** that it heard the

command correctly than W3, whose microphone 16 may be receiving a clearer audio signal of the user's voice with less background noise from TV1.”).

Rosenberger provides an example where “the RC variable will always be between 1 and 5 (with a 5 indicating the highest confidence).” *Id.*, 11:15-18.

Pet. 51–52.

Petitioner's contentions with regard to claims 3, 8, and 13 are well-supported. We determine that Petitioner has shown a reasonable likelihood of establishing the unpatentability of claims 3, 8, and 13 as anticipated by Rosenberg.

6. *Claims 5, 10, and 15*

Petitioner also challenges claims 5, 10, and 15 as anticipated by Rosenberg. Pet. 4, 49–50. Claims 5, 10, and 15 recite:

*recognizing a command in the voice input; and
in accordance with a determination that a type of the command
is related to the first electronic device, outputting an audible
and/or a visual response to the detected voice input.*

Ex. 1001, 36:25–30, 37:4–10, 38:20–28. Petitioner maps the recited detecting of the command and consequent response to Rosenberg's control device D detecting and responding to a trigger command while operating in the “circle recognition mode.” Pet. 52–56 (citing Ex. 1002 (Johnson Decl.) ¶¶ 153–158; Ex. 1003, 2:1–15, 3:3–12, 4:3–5, 4:29–32, 4:60–67, 7:28–31, 7:61–65, 8:20–39, 8:44–46, 10:59–67, 11:59–12:3, 14:38–45).

With regard to Rosenberg disclosing that the electronic devices recognize a command in the voice input, the Petition (*id.* at 53) quotes the following passage from Rosenberg:

Upon *recognizing a particular speech command* (and optionally confirming with the user), the device produces and transmits either to a system controller or directly to the automated mechanisms (via its communications circuitry 18) a corresponding system control signal designed to instruct the appropriate automated mechanisms to carry out the subject of the speech command.

Ex. 1003, 8:32–38 (emphasis added).

With regard to the second limitation in these claims, the Petition states that “Rosenberger also explains that the ‘control device’ responding to a voice input may involve ‘interacting with the user’ audibly and/or visually, such as by outputting a beep or tone, audibly prompting the user with a follow-up question, and/or changing its status light. Pet. 54–55 (citing Ex. 1003, 3:3–12, 4:3–5, 4:29–32, 4:60–67, 7:61–65, 8:20–32, 8:44–46, 11:59–12:3, 14:38–45).

Petitioner’s contentions with regard to claims 5, 10, and 15 are well-supported. We determine that Petitioner has shown a reasonable likelihood of establishing the unpatentability of claims 5, 10, and 15 as anticipated by Rosenberg.

E. Challenges Based on Rosenberg and Kim

Petitioner also challenges claims 5, 10, and 15 as unpatentable as obvious in view of a combination of the teachings of Rosenberg and Kim. Pet. 4, 56–69. Having already determined that: (1) Petitioner has shown a reasonable likelihood of establishing the unpatentability of claims 5, 10, and 15 as anticipated by Rosenberg without having to consider Kim; and (2) institution is appropriate because the information presented in the Petition demonstrates a reasonable likelihood that at least one of the claims challenged in the petition is unpatentable, we determine that it is

unnecessary for us to analyze this challenge in order to decide to institute *inter partes* review. We would like to have the record more fully developed and to hear from Patent Owner on the merits before substantively analyzing this challenge.

F. Discretionary Denial Under 35 U.S.C. § 325(d)

Section 325 of Title 35 of the United States Code deals with the relationship of proceedings before the Board with other proceedings in the Office. Section 325(d) provides, in part, that “[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31,⁷ 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.” In evaluating arguments under Section 325(d), we use

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

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). When deciding whether to exercise our discretion under Section 325(d) in view of

⁷ Chapter 31 (35 U.S.C. §§ 311–319) relates to *inter partes* review.

the *Advanced Bionics* framework, we weigh the following nonexclusive factors:

- (a) the similarities and material differences between the asserted references and the prior art involved during prosecution;
- (b) the cumulative nature of the asserted references and the prior art evaluated during prosecution;
- (c) the extent to which the asserted references were evaluated during prosecution, including whether a rejection rested on any reference;
- (d) the extent of overlap between the arguments made during prosecution and Petitioner's reliance on the asserted references or Patent Owner's contentions concerning them;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in analyzing the asserted references; and
- (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the asserted references or arguments.

See Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph). *See also Advanced Bionics*, Paper 6 at 9–11 (the Board considers the *Becton Dickinson* factors in and *Advanced Bionics* analysis).

Under the *Advanced Bionics* framework, we initially consider *Becton, Dickinson* factors (a), (b), and (d) in determining “whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 8, 10. As noted above, Petitioner challenges claims 1–3, 5–8, 10–13, and 15 as anticipated

by Rosenberger and claims 5, 10, and 15 as rendered obvious over Rosenberger in view of Kim. Pet. 4. As discussed below, Rosenberger was previously presented to the Office and Kim was not.

With regard to Rosenberger (U.S. Patent No. 8,340,975) (Ex. 1003), during prosecution of the application for the '128 patent, the Examiner listed Rosenberger second in a list of the “closest” prior art. Ex. 1004, 7. Rosenberger is listed under “References Cited” on the '128 patent. Ex. 1001, code (56). And, as discussed in the Preliminary Response, Rosenberger was repeatedly considered by the Office during consideration of the family of applications to which the '128 patent belongs. *See* Prelim. Resp. 2–5. Petitioner does not contend that Rosenberger was not before the Office during examination of the '128 patent application. *See* Pet. 7–13; Reply 1 (“The Board should reject [Patent Owner]’s arguments under Part Two of *Advance Bionics*.”), 3 (“Simply allowing the claims over the cited art would meet Part One.”). We find Rosenberger, which is asserted as anticipating all challenged claims, was previously presented to the Office.

With regard to Kim, U.S. Publication No. 2013/0238326 (“Kim”) (Ex. 1014), which the Petition asserts in combination with Rosenberger against claims 5, 10, and 15, we are presented with no evidence that it was previously presented to the Office. Kim is not listed under “References Cited” on the '128 patent. Ex. 1001, code (56). Kim is not mentioned in the Petition in the section discussing § 325(d). *See* Pet. 7–13. In the Reply, Petitioner argues that Kim was not considered by the Examiner of the '128 patent. Reply 7 (“[T]he expert declaration sets forth opinions from a POSITA that the specific combination of Rosenberger and ***Kim—which was not before the Examiner***—renders claims 5, 10, and 15 obvious.”)

(emphasis added). Patent Owner does not suggest otherwise. *See generally* Prelim. Resp.; Sur-reply. We find Kim was not previously presented to the Office.

We further find that because Rosenberger is asserted against all challenged claims and Kim is only asserted against three dependent claims in combination with Rosenberger, the same or substantially the same art was previously presented to the Office.

Because the Petition “presents to the Office the same or substantially the same art previously presented to the Office,” we turn to the second part of the *Advanced Bionics* framework and consider *Becton, Dickinson* factors (c), (e), and (f) in determining “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *See Advanced Bionics*, IPR2019-01469, Paper 6 at 7–8, 10. With regard to the alleged error, the Petition states, “[b]ecause the Examiner did not substantively evaluate Rosenberger during prosecution of the ’128 Patent and assumed that the allowed claims required a limitation not found in the claims, the Examiner erred in a manner material to patentability.” Pet. 11. Specifically, the Petitioner argues, “the Examiner incorrectly assumed that the allowed claims required each of the claimed ‘*plurality of electronic devices*’ to operate in a ‘low power state.’ But the allowed claims do not recite such a limitation.” *Id.* We find this argument persuasive.

In discussing the art including Rosenberger, the Examiner stated:

[T]he combination of A-BB taken in any order fails to teach or suggest the complex claim limitations as a whole. It is clear that even if the *server* is a second device and in a *semi-sleep state* e.g. monitor off, fucnationally [sic] as a sleep state, the

system still requires the *first device* and not the second server device 885 based voice [sic] response 850 to process the voice command as shown in fig. 8B . . . in element 830. At best it will compartmentalize different *low power states* only on the first device. . . . Therefore the combination taken in any order fails to teach or suggest the complex claims as a whole.

Ex. 1004, 11–12 (emphasis added); *see also id.* at 10 (the Examiner finding that the prior art discloses a “[s]emi-sleep state whic[h] can only process commands on mobile device” (emphasis omitted)). None of the claims of the ’128 patent recite a server, semi-sleep state, or low power state.

Ex. 1001, 35:54–38:28. The Examiner never identified any limitation that distinguished the claims of the ’128 patent from the prior art (including Rosenberger) or specifically explained what recitation of the claims makes them patentable. *See id.* at 6–13. It was material error to rely on limitations not present in the claims in allowing the claims. And, as shown above, there is a reasonable likelihood that Rosenberger discloses the methods and devices recited in the allowed claims. We find that the Examiner erred in a manner material to the patentability of the challenged claims.

For these reasons, we believe it is not appropriate to exercise our discretion under 35 U.S.C. § 325(d) to deny institution.⁸

⁸ The Petition includes a section arguing why it would be inappropriate for the Board to exercise its discretion to deny institution under 35 U.S.C. § 314(a). *See* Pet. 5–7. Patent Owner does not request that the Board deny institution on this basis (*see generally* Prelim. Resp.), so we do not address the issue.

III. CONCLUSION

For the reasons discussed above, we determine that Petitioner has demonstrated a reasonable likelihood of showing at least one of the claims challenged in the Petition is unpatentable as having been anticipated.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that an *inter partes* review is instituted on all challenged claims under all challenged grounds presented in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '128 patent is hereby instituted commencing on the entry date of this Decision, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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FOR PETITIONER:

Michael P. Boyea
Jae Y. Pak
Cole B. Richter
LEE SULLIVAN SHEA & SMITH LLP
boyea@ls3ip.com
pak@ls3ip.com
richter@ls3ip.com

For PATENT OWNER:

Erika H. Arner
Cory C. Bell
Alissa E Green
FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER LLP
erika.arner@finnegan.com
cory.bell@finnegan.com
alissa.green@finnegan.com