

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SONOS, INC.,  
Petitioner,

v.

GOOGLE LLC,  
Patent Owner.

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Case No. IPR2023-01284  
U.S. Pat. No. 11,024,311

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**PATENT OWNER'S PRELIMINARY RESPONSE**

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**EXHIBIT LIST**

<b>Exhibits</b>	<b>Description</b>
Ex. 2001	<i>Certain Audio Players and Components Thereof (II)</i> , Inv. No. 337-TA-1330 (“1330 ITC Investigation”), Google’s Initial Markman Brief (Dec. 12, 2022)
Ex. 2002	U.S. Patent No. 11,538,451 to Sereshki et al. (Sereshki)
Ex. 2003	<i>Certain Audio Players and Components Thereof (II)</i> , Inv. No. 337-TA-1330 (“1330 ITC Investigation”), Google’s Validity Contentions (Redacted) (Jan 9, 2023)

## **I. INTRODUCTION**

Petitioner requests inter partes review of claims 1-3, 8-12, and 14-20. This is also Petitioner's second petition challenging each of claims 1-3, 8-12, 14-18, and 20. The Board should deny institution under its § 314(a) discretion because none of the reasons articulated in Petitioner's Ranking and Explanation for Second Petition (Ranking) justifies this serial petition filed four months after institution of its first petition on the '311 patent. The Board should also deny institution because none of the references asserted in Ground 1 constitute prior art.

## **II. NONE OF THE REASONS ARTICULATED IN THE RANKING JUSTIFIES THIS SERIAL PETITION**

This is Petitioner's second petition challenging the '311 patent—the first challenge having been instituted on April 14, 2023. *Sonos Inc. v. Google LLC*, IPR2022-01592, Paper 9 (Inst. Dec. Apr. 14, 2023). Since institution, the Parties have filled numerous papers—including Patent Owner's Response and Sur-Reply—and exhibits—including the cross-examination testimony of Patent Owner's expert. IPR2022-01592, Papers 11, 19, Ex. 1032. Oral argument is only a month away and a Final Written Decision is due in four months. IPR2022-01592, Paper 10. Petitioner admits that it now seeks to account for deficiencies in its first-filed Petition, but does not explain why these references and arguments could not have been raised much sooner. Petitioner has not only used Patent Owner's Response as a roadmap in forming this Petition (and all but concedes as much) but

also seeks to exploit the *General Plastic* framework under the guise of an alleged “priority dispute.”

**A. Petitioner Could Have Challenged Claim 19 in the First-Filed Petition and One New Claim Does Not Justify a Second Bite at the Apple for Twelve Others.**

Petitioner alleges that a serial petition is warranted because this second petition challenges a dependent claim that was not raised initially and “[i]f the Board were to discretionarily deny Petition 2, the parties would likely need to address the same grounds concerning claim 19 in the parallel district court proceeding, which would be highly inefficient.” Ranking, 1-2.

But, Petitioner knew at the time of the first IPR that additional claims could be asserted in the ITC and/or the parallel district court proceeding and nonetheless decided not to address claim 19 despite this *foreseeable* event. Even if it was not foreseeable, Petitioner admits that it was aware of Google’s assertion of this claim 6 months before it filed its second petition. Ranking, 1. Petitioner does not dispute that it could have asserted at least one ground addressing claim 19 in the earlier-filed petition and cannot now call on the Board’s resources to address what it chose not to raise (and in the process drag other previously-challenged claims with it) under the guise of claim construction or priority discrepancy. Petitioner cites no precedent to support its staggered approach because the Board has found on

multiple occasions that staggering petitions on this basis undermines the principles of fairness. *Apple Inc. v. Koss Corp.*, IPR2022-00053, Paper 10 (PTAB Apr. 4, 2022) (Decision denying institution). There is no reason to hold otherwise here—where Petitioner's incremental approach is merely an attempt to course correct based on the well-developed record of the first-filed petition.

**B. Patent Owner's Claim Construction in the First IPR Proceeding Is Not a Material Alteration.**

Petitioner further argues that Patent Owner's claim construction of “detecting a voice input” in the first IPR is the type of “material alteration” that warrants a serial petition. This is facially incorrect.

Patent Owner's proposed construction of “detecting a voice input” in the first IPR proceeding is consistent with its use of the term in its initial Markman Brief filed December 12, 2022, where Patent Owner was clear that voice input detection and speech recognition are distinct processes. *Compare* IPR2022-01592, Paper 11, 12-13 *with* Ex. 2001, 3-7. Patent Owner expressed the same in its validity contentions served January 9, 2023. Ex. 2003, 2. Thus, Petitioner knew Patent Owner's interpretation of the term for *over seven months* before filing the second petition. Ranking, 4, fn.2 (“Google also advanced its narrow interpretation in the parallel ITC proceeding months after Sonos filed Petition.”). “Prosecution disclaimer” based on claim construction positions taken in an IPR proceeding, as

argued by Petitioner, is not a justification for filing multiple petitions. Petitioner cannot justify its lack of diligence in filing a second petition based on the totality of these circumstances. Furthermore, the Federal Circuit has held that Petitioner is “afforded a reasonable opportunity in reply to present argument and evidence” responsive to “new” Patent Owner claim construction “where it relies on the same embodiments for each invalidity ground as were relied on in the petition.” *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1384 (Fed. Cir. Aug. 7, 2023). To the extent Petitioner considered Patent Owner’s claim construction to be a “new” position—and it was not, as described above—Petitioner had an opportunity to present such evidence in its Reply.<sup>1</sup> Its failure to do so should not justify a second bite at the apple at Patent Owner’s and the Board’s expense.

Furthermore, the complaint in the parallel proceeding did not set forth any affirmative interpretation of the claims, and any “claim construction” inferred by Petitioner based on the complaint is just that—an inference. That Petitioner made

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<sup>1</sup> Petitioner’s responsive arguments in its Reply were beyond the scope of what is “reasonable” because they were not coextensive with the embodiment relied upon in the Petition (*see* IPR2022-01592, Paper 19) —but this does not and should not justify this serial petition.



mistaken assumptions about Patent Owner's claim construction positions does not warrant a second petition. *See Guardant Health Inc., v. Univ. of Wash.*, IPR2022-01388, Paper 9 at 20 (PTAB Jan. 31, 2023) (Rejecting Petitioner's argument that a serial petition is "warranted because Patent Owner's post-petition claim construction fundamentally altered the patentability landscape" and equating such arguments to "an admission that Petitioner benefits from having Patent Owner's preliminary responses in the [earlier-filed] IPRs" (internal citation omitted)).

**C. Petitioner's Priority Challenge Does Not Necessitate a Second Petition**

Petitioner bootstraps an alleged priority dispute (yet another argument it could have raised in its earlier filed petition) to its claim construction argument and contends that a second petition is needed to address an alternative priority date.

Pet., 3-4.

But this argument presupposes that priority needs to be addressed to resolve patentability. Indeed, Petitioner does not attempt to explain why a second IPR is necessary if the Board has already instituted an IPR where priority is not in dispute. Furthermore, Grounds 2A-2B, which assume that the earliest possible priority date of the '311 patent *is* the claimed earliest priority date (October 9, 2014) belie Petitioner's assertion that the Board should institute to resolve an alleged priority dispute.

Although the Trial Practice Guide acknowledges that a dispute over priority may present a circumstance where multiple petitions are necessary, the Board has also found that this is not necessarily the case, particularly where Petitioner has failed to demonstrate why the Board should not simply proceed with the IPR in which priority is not at issue. *Square, Inc., v. 4361423 Canada Inc.*, IPR2019-01626, Paper 14 at 10-11 (PTAB March 30, 2020) (denying institution of IPR raising a priority dispute where petitioner did not explain why, if the Board institutes review on a petition “where priority is not an issue, a second review in IPR201-01626 that involves a priority dispute is necessary.”). This is certainly the case here—and Petitioner’s incorporation of grounds that do not challenge the priority confirms that resolution of the first IPR is sufficient.

**D. The *General Plastic* Factors Favor Discretionary Denial**

Petitioner filed IPR2023-01592 (“IPR592”) nearly one year prior to the instant Petition and challenges all but one of the same patent claims. *Compare* IPR592, Paper 1, 1 *with* Pet., 1. The Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019) states that “one petition should be sufficient to challenge the claims of a patent in most situations” and that “multiple petitions by a petitioner are not necessary in the vast majority of cases.” Guide, 59. “[T]o aid the Board’s assessment of ‘the potential impacts on both the efficiency of the inter

partes review process and the fundamental fairness of the process for all parties,” the Board considers a number of nonexclusive factors, “especially as to ‘follow-on’ petitions challenging the same patent as challenged previously in an IPR.” Guide,56. These factors plainly favor discretionary denial, as explained below:

Factor 1

The instant Petition and the IPR592 Petition challenge nearly identical claims of the same patent, and both were filed by Petitioner. The near complete overlap along with the circumstance that the same petitioner filed both petitions, favors denying institution. *Apple*, IPR2022-00053, Paper 10 at 9 (“there is an almost total overlap in challenged claims, and we conclude that this first *General Plastic* factor weighs in favor of denying institution of the proceeding.”).

Factor 2

Petitioner should have known of the asserted references as of the date of IPR592. Petitioner does not deny that they should have known about them; rather Petitioner states that they did not “look for prior art” or have reason to. Ranking, 4. But certainly Petitioner had reason to look for prior art that discloses *identifying that an audio input includes voice* when the claims themselves recite “detecting a voice input.” Petitioner contends that asserted references Meyers and Piersol “only became relevant” after Patent Owner filed its Patent Owner’s Response in IPR592.

But Factor 2 does not ask if Petitioner considered the references “relevant” at the time of the first petition or anytime thereafter, only whether Petitioner knew or should have known about them. Even if this was the test, Petitioner should have searched and known of such “relevant” references shortly after learning of Patent Owner’s allegedly “narrow interpretation in the parallel ITC proceeding.”

Ranking, 4, fn.2. Indeed, both Piersol and Meyers are cited on the same face of at least thirty-eight Sonos patents that have issued since the Sereshki patent (Ex. 2002) that issued in December 2022 : US 11562740; US 11641559; US 11664023; US 11556306; US 11676590; US 11531520; US 11715489; US 11646023; US 11551690; US 11538451; US 11551700; US 11556307; US 11792590; US 11790937; US 11727919; US 11646045; US 11727936; US 11726742; US 11790911; US 11798553; US 11563842; US 11551669; US 11698771; US 11696074; US 11540047; US 11545169; US 11538460; US 11710487; US 11797263; US 11557294; US 11741948; US 11736860; US 11769505; US 11727933; US 11694689; US 11714600; US 11689858; US 11778259.

*Apple*, IPR2022-00053, Paper 10 at 10. (“Although the fact that Petitioner had cited the Schragger reference on numerous previous occasions does not give rise to an inference that those involved on Petitioner’s behalf here were actually aware of

the reference, it is indicative that Petitioner should have known of the reference.”).

Accordingly, this factor favors denying institution.

### Factor 3

Petitioner received Patent Owner's Preliminary Response and the Board's institution decision, as well as Patent Owner's Response in IPR592 before filing the instant Petition. IPR592, Papers 6, 9, 11. “The Board has recognized ‘the potential for abuse’ in situations like this one and has exercised its discretion to deny institution” under similar circumstances. *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16–17 (PTAB Sept. 6, 2017).

Petitioner makes no attempt to address Factor 3. This factor strongly favors denying institution.

### Factor 4

As explained for Factor 2, Petitioner should have known of the Peirsol and Myers references at the time of IPR592 and does not suggest otherwise. Petitioner could have conducted a prior art search and filed another petition shortly after learning of Patent Owner's interpretation of “detecting a voice input” but determined not to. Petitioner makes no attempt to address Factor 4. This factor favors denying institution.

### Factor 5

Petitioner blames the near 1-year lapse between petition filings on Patent Owner's construction of "detecting a voice input." Ranking, 4. As discussed above, Petitioner was on notice of Patent Owner's claim construction for *over seven months* before filing the second petition (Ranking, 4, fn.2.) and prosecution disclaimer is not a prerequisite for filing multiple petitions. Petitioner's decision not to contest priority or diligently file a second IPR, despite being aware of Patent Owner's interpretation of "detecting a voice input" seven months before filing this petition, does not justify this serial petition. *Guardant Health*, IPR2022-01388, Paper 9 at 24 (petitioner's delay weighs in favor of denying institution under factor 5 "[e]ven if we were to accept that Patent Owner's proposed claim construction ... could be reason to file...").

#### Factors 6 and 7

Petitioner contends that "there is no readily identifiable roadblock for the Board to issue a final determination for Petition 1 within the statutory limit" and that "the Board's resources will not be unduly exhausted by Petition 2" based on a series of hypothetical outcomes for IPR592. Ranking, 5. On the one hand, Petitioner argues, the Board might cancel the challenged claims in IPR592 and still "consider Grounds 2A-2B in Petition 2 that address dependent claim 19"—though grounds 1A-1B also challenge claim 19. Ranking, 5; Pet., 5. On the other hand,

Petitioner posits the Board could “institute Petition 2 around February 2024 and not expend further resources on Petition 2 until the end of 2024 in advance of the final determination expected around February 2025.” Ranking, 5.

Petitioner overlooks what is plainly evident—not only do both scenarios expend considerable resources, they ignore the fact that estoppel will attach to all but claim 19 based on IPR592 and the Board will not be able to reach a Final Written decision for *this* Petition if instituted. That is, the Board will have wasted considerable resources considering arguments for claims Petitioner cannot challenge, including claim 1 from which claim 19 depends. And under *SAS*, institution of the second petition would also require instituting grounds 1A-1B, which rely on references that are not prior art—yet another wasteful application of the Board's resources. *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1358–59 (2018). The most efficient recourse would be to deny institution of this petition (consistent with Petitioner's preferred ranking) and address overlapping challenged claims 1-3, 8-12, 14-18, and 20 in the Final Written Decision of IPR592 due in April 2024. Petitioner made a strategic decision not to challenge claim 19 in IPR592 but that is neither the Board's nor Patent Owner's burden to bear.

### **III. PEIRSOL AND MEYERS ARE NOT PRIOR ART TO THE '311 PATENT**

Petitioner alleges that the challenged claims are anticipated by Peirsol or obvious over Peirsol and Meyers. Pet., 5. According to Petitioner, these references are prior art to the '311 patent because U.S. Patent No. 9,318,107 (the '107 patent, Ex. 1009) filed April 1, 2015, to which the '311 patent claims benefit does not have “written description support for Google’s interpretation of *detecting a voice input*”—making the effective priority date of the '311 patent October 3, 2016. Pet., 14, 22, 25. Petitioner is incorrect.

Petitioner relies on '107 patent disclosure at 1:58-64 to argue that hot word detection and speech recognition are not mutually exclusive, but that disclosure pertains to “[o]ne way” of “discerning when any given utterance is directed at the system.” Ex. 1009, 1:49-64. The '107 patent expressly discloses detecting voice input (e.g., a hotword) without performing speech recognition—i.e., distinct voice detection and speech recognition processes. For example, the '107 patent discloses a hotworder that “compares [] processed audio data to known hotword data and computes a confidence score that indicates the likelihood that the utterance 104 corresponds to a hotword.” Ex. 1009, 5:12-16. The '107 patent also explains that the hotworder may “extract audio features from the processed audio data such as filterbank energies or mel-frequency cepstral coefficients” or “use classifying



windows to process these audio features such as by using a support vector machine or a neural network” to compute the confidence score. Ex. 1009, 5:16-24; *see also* Ex. 1009, 9:47-51 (“The computing device determines the first value, which may be referred to as a hotword confidence score, by comparing the audio data of the utterance to a group of audio samples that include the hotword or by analyzing the audio characteristics of the audio data of the utterance.”). Moreover, the ’107 patent explains that “[t]he computing device that determines that its own hotword confidence score is the highest *initiates speech recognition* on speech data the follows the hotword utterance.” Ex. 1009, 6:24-30; *see also* Ex. 1009, 10:60-66 (explaining that the computing device “initiates” speech recognition after hotword detection).

Figure 2 also illustrates “process 200 for hotword detection” whereby a hotword is detected and speech recognition is separately initiated. Ex. 1009, 9:26-33.

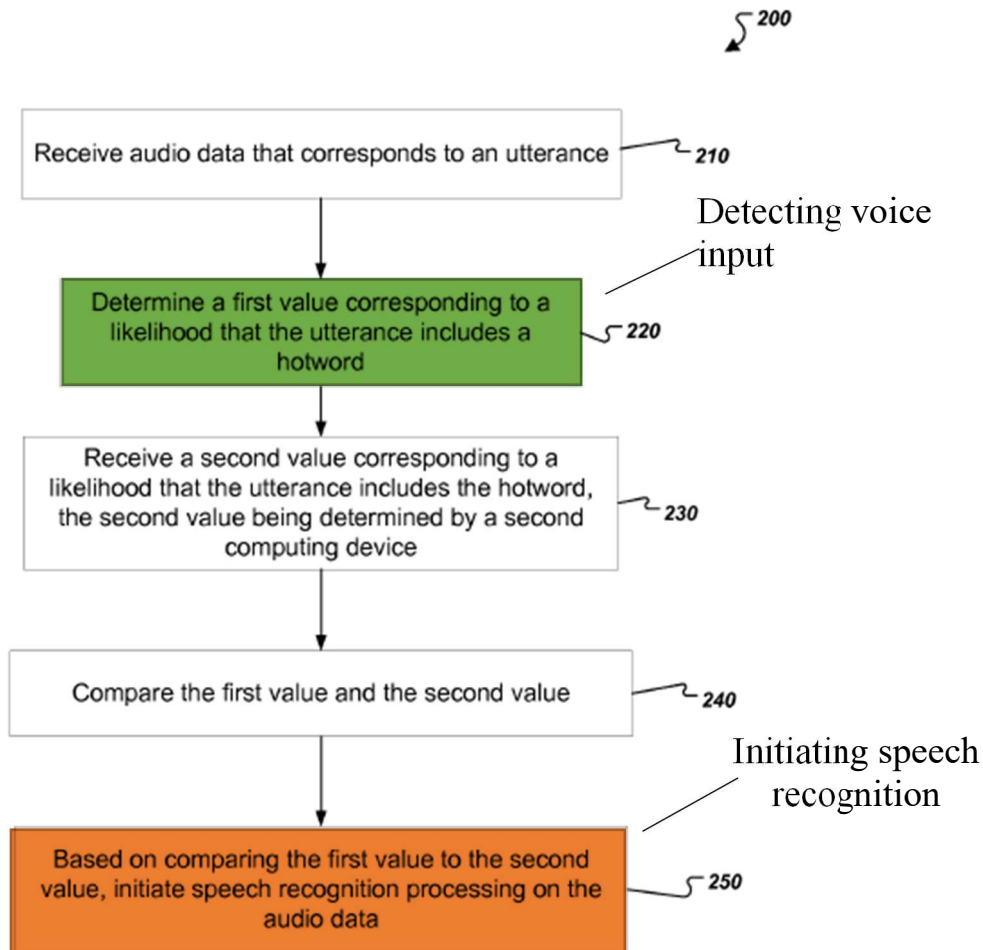


FIG. 2

Ex. 1009, FIG. 2 (annotated).

Thus, the '107 patent expressly discloses detecting a voice input without performing speech recognition. Because the '107 patent supports Patent Owner's proposed construction that detecting a voice input "refers to a process for identifying that an audio input includes voice" including without performing

speech recognition, neither Peirsol (filed September 16, 2016) nor Meyers (filed September 21, 2015) qualify as prior art.

#### **IV. CONCLUSION**

For the aforementioned reasons, Petitioner cannot meet its burden of establishing that at least one claim is unpatentable as anticipated or obvious over the cited art, and the Board should exercise its discretion to deny institution.

Respectfully submitted,

Dated: December 12, 2023

By: /Erika H. Arner/  
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Lead Counsel

## **CERTIFICATE OF COMPLIANCE**

Pursuant to 37 C.F.R. § 42.24(d), I, Cory C. Bell, certify that **PATENT OWNER'S PRELIMINARY RESPONSE** contains 2,887 words, excluding those portions identified in 37 C.F.R. § 42.24(a), as measured by the word-processing system used to prepare this paper.

Dated: December 12, 2023

By: /Cory C. Bell/  
Cory C. Bell, Reg. No. 75,096

**CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. § 42.6(e), I certify that on December 12, 2023, a copy of **PATENT OWNER'S PRELIMINARY RESPONSE** was served upon the below-listed counsel by electronic mail:

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