

**UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD**

**SAMSUNG ELECTRONICS CO., LTD. AND
SAMSUNG ELECTRONICS AMERICA, INC.,**
Petitioners

v.

MAXELL, LTD.,
Patent Owner

Inter Partes Review No.: IPR2024-00867

U.S. Patent No. 10,176,848

**PETITIONERS' AUTHORIZED RESPONSE
TO DIRECTOR REVIEW REQUEST**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Discussion.....	2
	A. The Board Fully Addressed PO’s Arguments Regarding the Prior Art Considered During Prosecution and Reexamination.....	2
	B. The Board Correctly Construed “Mode,” and Haitani Discloses the Claimed Image Information “Reproducing Modes.”	4
	C. Petitioners Correctly and Consistently Mapped All Disclosures in the Prior Art to the Challenged Claim Limitations.....	10
III.	Conclusion	13

I. INTRODUCTION

PO's Request offers only incorrect and misleading arguments and should be denied. Although PO claims that the '848 patent has been "repeatedly" and "thoroughly" "examined by the Office" (PO Request at 1, 4, 5), the patent has undergone only its initial prosecution and a reexamination, neither of which considered the merits of the two distinct prior-art combinations that the Board concluded invalidate the challenged claims.¹ The Board's seventy-two page decision addresses each of PO's substantive arguments, properly relies on the intrinsic evidence, and carefully explains why the extrinsic evidence that PO and its expert, Dr. Balakrishnan, offer is unpersuasive.

The Board's conclusions are also consistent with those reached in a related proceeding. In parallel litigation in the Eastern District of Texas, the Court granted JMOL of non-infringement of the '848 patent. EX1021. In doing so, the Court found that PO's expert offered "conclusory and self-contradictory testimony" that could not sustain the jury's infringement verdict and that PO itself had "continued to muddy the waters" by conflating distinct issues. EX1021 at 20–22. PO's Request repeats similar flawed arguments and should likewise be rejected.

¹ PO does not challenge the invalidity determination under Grounds 2 and 3.

II. DISCUSSION

A. **The Board Fully Addressed PO's Arguments Regarding the Prior Art Considered During Prosecution and Reexamination.**

PO first argues that the Board should not have instituted proceedings here at all, because in PO's view the prior art here overlaps with the prior art that the Patent Office considered during the '848 patent's original prosecution and re-examination. PO Request at 4-6. This argument fails.

As a threshold matter, PO's argument is untimely. The deadline for PO to seek Director review of the Institution Decision has long passed (37 C.F.R. § 42.71(d)). And in any event, the Director already considered and denied a similar request. *See* PO Request re ID (Paper 11); Order Denying Director Review (Paper 13).

On the merits PO's argument remains as incorrect now as when PO first advanced it more than a year ago. PO continues to mischaracterize the record to claim that the Patent Office considered the prior art at issue here. It did not. The Patent Office has never substantively considered Nozaki or Haitani, either separately or in the combination on which the Board's decision relies. *See* Institution Decision (Paper 9) at 13–20. The Board explained this in its Institution Decision, detailing how Nozaki and Haitani—and their combination—differ from the art and combinations the Office considered during the '848 patent prosecution and reexamination. *Id.* at 20 (“There is no verifiable evidence in the record that Nozaki,

Haitani, Graham, or Kim were ever meaningfully addressed by the Office during prosecution or reexamination of the '848 patent.”). PO ignores that analysis entirely.

PO's criticisms of the Final Written Decision thus necessarily fail. Citing the Patent Office's September 16, 2025 Memorandum, PO argues, for example, that the Final Written Decision needed to include an explanation for why the IPR outcome should differ from that of the reexamination. PO Request at 5-6. But PO's selective quotation of the Memorandum uses ellipses to hide that the Institution Decision was by itself sufficient to meet the Patent Office guidance. *Compare* PO Request at 5 (stating that “the Board shall explain in the ... final written decision why a different outcome is warranted”) *with* U.S.P.T.O. Memorandum (Sept. 16, 2025) (stating that “the Board shall explain in the institution or final written decision why a different outcome is warranted”) (underlines added by Petitioners). The Director already reviewed the Institution Decision and deemed the Board's explanation sufficient. Order Denying Director Review (Paper 13).

PO's remaining argument fares no better. PO argues that the Board needed to provide a “detailed” explanation for why this IPR proceeding—based on Nozaki, Haitani, Kim, and Graham— reached a different outcome from the Examiner's reexamination analysis of Gallagher and Nakashima. PO Request at 6. Not so. The Board already answered that question: this IPR proceeding involves different prior art and different combinations than the reexamination. Thus, the Board was not

addressing “the same or substantially the same evidence and/or arguments” that the Examiner addressed during the reexamination. Although PO continues to claim overlap, it still has not articulated how Nozaki or Haitani—or their combination—supposedly relate to the Gallagher or Nakashima references that the Patent Office considered during prosecution and reexamination. Tellingly, PO does not mention Nakashima at all.

PO offers no “verifiable evidence” of any overlap between this IPR and the ’848 patent prosecution or reexamination. Instead, PO relies solely on its own say-so, just as it did in its Preliminary Response, which the Board rejected. And PO’s unsupported assertions should carry even less weight here, given its past conduct in this proceeding. *See, e.g.*, Pet. Resp. (Paper 40) at 5-8 (explaining how PO hid critical information material to patentability from the Patent Office); Order (Paper 44) at 5-6 (agreeing with Petitioners that “Patent Owner failed to identify the ’685 patent prosecution as a related matter in this proceeding in compliance with its mandatory notice obligations under 37 C.F.R. § 42.8(b)(2)”).

B. The Board Correctly Construed “Mode,” and Haitani Discloses the Claimed Image Information “Reproducing Modes.”

The Board’s construction of “mode” finds extensive support in the intrinsic record. As the Final Written Decision explains, “mode” appears “in several different contexts” in the challenged claims. FWD 16. Sometimes “mode” “introduce[s] a

number of modes to be selected from” as in claim 84; other times it “identif[ies] different types of ‘modes,’” such as a “setting mode,” “reproducing mode,” “photographing mode,” “record mode,” and “reproduction mode.” At issue here are the instances where the claims recite a “mode” in the context of a “reproducing mode,” as the exemplary language of dependent claim 11 illustrates:

[11pre] The recording and reproducing apparatus according to claim 8,

[11a] wherein the memory further stores instructions that, when executed by the processor, cause the processor to: control the reproduction of the image information in a **reproducing mode** set from one of a **first reproducing mode** and a **second reproducing mode**,

[11b] wherein a reproducing time required for reproducing the image information under the **first reproducing mode** is shorter than a reproducing time required for reproducing the image information under the **second reproducing mode**, and

[11c] the image information reproduced under the **second mode** includes the image information reproduced under the **first reproducing mode** and other of the image information not reproduced under the **first reproducing mode**.

The Board construed the term “mode” generally to be “a ‘state,’ ‘condition,’ or ‘operational state’ of a recording device, such as a video camera, that is selected by a user and may include a selection function using threshold values.” FWD 21. The phrase at the end of this construction—“and may include a selection function using

threshold values”—was included to resolve a dispute between the parties over whether a “mode” could be identified by the thresholds (or filters) it employs.

The Board’s nine-page explanation for this construction is detailed, comprehensive, and correct. FWD at 13-21. PO does not appear to challenge the construction itself, but instead targets the Board’s “application” of it. PO Request at 6.² The Board’s application of the “mode” construction in the context of “reproducing modes” is even more extensive, spanning nearly twenty pages. FWD 41-58. PO’s Request barely acknowledges that analysis. Instead, PO recycles its argument that Haitani—which the Board found discloses the claimed “reproducing modes”—should not be viewed as disclosing the claimed “reproducing modes” because Haitani’s modes employ “filters,” which PO asserts are not “threshold values.” *Id.* at 7. This argument lacks merit.

As the Board explained in the Final Written Decision, Haitani discloses modes for reproducing sets or subsets of image information using “filters” that operate according to the same principles as the reproducing modes disclosed in the ’848 patent embodiment. FWD 13-21, 41-58. The Board stated, for example, that in the ’848 patent, “the threshold values assigned to the video chapters by the ‘chapter

² PO also appears to accept that it would have been obvious to combine Nozaki and Haitani, and that a POSITA would have been motivated to do so.

select reproducing function' upon activating the 'standard,' 'express,' and 'superexpress reproducing modes' act to sort and select the various video chapters based upon their 'importance,' which "acts as a selection or filtering process that meets the stated goals of the claimed invention, which allows a user to 'find an object chapter and scene quickly and easily.'" FWD 47 (citing EX1001, 2:53-58, 9:20-62, 10:16-30). The Board further noted that Petitioners' expert "Dr. Bederson testifies, and we agree, that Haitani's filtered searches resemble the reproducing modes of the '848 patent that generate narrower lists of photos and/or videos for reproduction." FWD 48 (citing EX1005 ¶¶ 95-96, EX1017 ¶ 15). Importantly, PO's expert Dr. Balakrishnan agreed "that using picture size as a threshold is an example of filtering based on size," which as Petitioners had argued amounted to at least a tacit admission that thresholds represent a type of filtering. FWD 48 (citing EX1018 at 48-49); Pet. Reply at 3, n.2. PO's Request addresses none of this analysis and scarcely mentions the '848 patent's embodiment of reproducing modes.

Rather than engage with the substance of the Board's decision, PO asserts a series of invented "errors." For example, PO claims—incorrectly—that Petitioners advanced an untimely "new theory" when explaining how Haitani discloses the claimed "reproducing modes." PO Request at 7-8. That assertion is wrong. The Petition and supporting declaration of Petitioners' expert Dr. Bederson explained Haitani's disclosures regarding reproducing modes and expressly compared them to

the '848 patent's embodiment. *See* Pet. at 29 (explaining that Haitani's disclosures are "consistent with the disclosures in the '848 patent regarding, for example, a 'standard reproducing mode' that reproduces 'all chapters' and an 'express reproducing mode' that reproduces only a subset of chapters"); EX1005 ¶ 100 (same). The Board cited these arguments in reaching a similar conclusion. FWD at 41-55 (discussing claims 11 and 12, and citing Pet. 29-31 and EX1005 ¶¶ 95-105).

Regardless, Petitioners had every right to raise responsive arguments to PO's proposed construction of "mode" in their Reply and Dr. Bederson's responsive declaration. PO raised its claim-construction arguments for "mode" for the first time in the POR,³ advancing a self-serving construction that the Board ultimately rejected. In these circumstances Petitioners "must be given the opportunity" to respond. *See Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1384 (Fed. Cir. 2023) ("[W]here a patent owner in an IPR first proposes a claim construction in a patent owner response, a petitioner must be given the opportunity in its reply to argue and present evidence of anticipation or obviousness under the new construction..."). Petitioners' Reply and Dr. Bederson's responsive declaration did exactly that: they relied on the same disclosures in Haitani and the '848 patent and built on the arguments set out in the Petition.

³ PO did not propose to construe "mode" in its Preliminary Response. POPR at 25.

PO also manufactures an alleged distinction between the filtering performed in the '848 patent and in Haitani and argues that the Board failed to account for it. *See* PO Request at 8-9 (asserting that, in the '848 patent, unlike Haitani, “the user does not select different filtering criteria but selects ‘different modes **that yield different operations**’”) (emphasis in original). But the Board undertook extensive analysis addressing this exact point, which PO ignores. FWD 41-58. PO’s suggestion also makes no sense, as Petitioners explained in their Reply. *See* Pet. Reply at 12 (explaining that “Haitani discloses the same thing, i.e., a user selecting different filtering modes that yield different operations, here, choosing specific image information to reproduce”).

Finally, PO incorrectly contends that the Board overlooked evidence showing that “filters” cannot be equated with “modes.” PO Request at 9. The Board considered—and properly rejected—this argument, finding that PO “fail[ed] to take into account the full disclosure of the '848 patent when considering the meaning of the term ‘mode’ as it is used in the '848 patent claims.” FWD 45-46. Moreover, both pieces of “evidence” that PO accuses the Board of overlooking are extrinsic evidence, and the Board expressly found such evidence less probative given the patent’s unambiguous use of the term “mode.” FWD 19.

The Board's determination that Haitani discloses the claimed reproducing modes is correct and rests on substantial evidence. PO's conclusory and misleading arguments to the contrary should be rejected.

C. Petitioners Correctly and Consistently Mapped All Disclosures in the Prior Art to the Challenged Claim Limitations.

PO additionally argues that the Director should overturn the Board's decision because Petitioner's "mapping of Claims 11-12, 16-17, and 19-20 to Nozaki and Haitani was fatally flawed." PO Request at 9. But PO's Request—like the POR, PO's Sur-Reply, and PO's arguments at the Hearing—mischaracterizes Petitioners' submissions in an effort to suggest that Petitioners mapped the prior art to the claims differently than what the record shows. The Board correctly rejected PO's misleading argument, and the Director should do the same here.

To begin, PO is wrong that Petitioners "never rebutted" its argument that the prior art had been inconsistently mapped to the claim limitations. PO Request at 12. Petitioners' Reply specifically addressed this argument twice. First, in discussing limitation 12[a], Petitioners explained how the prior art maps to the claims:

PO also alleges that "the Petition and Dr. Bederson fail to maintain any cohesive theory as to which filters are which specific modes and thus fail to map their theories to the claim language." POR 39. This is incorrect. The reproducing modes recited in the claims are defined by their reproducing times and reproduced content relative to each other (e.g., the reproducing time of the "first reproducing mode" is shorter than that of the "second

reproducing mode”). As any POSITA would have understood—and as Petitioners explained and Dr. Bederson testified—the filter modes of Haitani meet these limitations by reproducing more or fewer image/video files depending upon the user selection. Even PO’s expert conceded that different sets of images/videos will have different reproducing times. *See, e.g.*, EX1018, 39:19-41:12 (“[I]t takes more time to read two images than it takes to read one image. . . . assum[ing] that both images are of the same size, et cetera.”).

Pet. Reply at 16-17. Petitioners’ Reply also addressed this argument from PO in the context of limitation 12[b]:

PO again accuses Petitioners of taking inconsistent or conclusory positions, but as with all of the similar accusations in the POR, PO is wrong. Limitation [12b] recites a “third reproducing mode” with a “reproducing time” longer than the “second reproducing mode.” EX1001, 16:45-49. This limitation, viewed in combination with the other limitations of claims 11 and 12, identifies clear requirements for the three claimed reproducing modes: (1) as for “reproducing time,” the first mode has the shortest reproducing time, the second mode has a longer reproducing time than the first mode, and the third mode has the longest reproducing time of the three; and (2) as for “the image information reproduced,” the second mode includes the image information reproduced under the first mode as well as other of the image information not reproduced under the first mode. *Id.*, 16:23-49.

Petitioners and their expert consistently identified the claimed “first reproducing mode” as the “narrowest” search, and identified the claimed “second reproducing mode” and “third reproducing mode” as the “broader” modes disclosed in Haitani that would generate larger numbers of image/video files. EX1005, ¶¶ 100, 101, 103-

04; EX2031, 65:11-66:7. PO is incorrect that “Dr. Bederson did an about-face” regarding his opinions. POR 41. At all times, Dr. Bederson has clearly articulated that “[a] POSITA would have known that each mode would generate broader or narrower results, with the broadest mode being a ‘third’ mode having the characteristics recited in this limitation, i.e., a reproducing time longer than the second mode.” EX1005, ¶ 104. Although a POSITA would have understood from the disclosures alone which modes could be selected to correspond to the claimed “reproducing modes,” Dr. Bederson even specifically identified example filtered search modes disclosed in Haitani that could satisfy the three “reproducing mode” limitations and explained why a POSITA would have understood Haitani’s disclosures in this way. EX1005, ¶¶ 100, 101, 103-04; EX2031, 65:11-66:7. PO does not address the substance of these positions.

Pet. Reply at 17-18.

Just as the Petition and Reply consistently explained how the prior art reads on the claims, the Board’s Final Written Decision does the same. FWD 41-58. PO addresses none of this analysis. Instead, PO imagines a “mode-order inconsistency” where none exists. For example, claim 12 recites three reproducing modes that reproduce larger and smaller sets of image information. Petitioners and the Board explained that Haitani discloses the same: one mode that can employ one filter, another mode that employs two filters, and a third that employs three. FWD 54 (citing Pet. 31 and EX1005 ¶ 103). Petitioners and the Board also explained that “each mode [in Haitani] would correspond to a mode recited in” the claim. FWD 54 (citing Pet. 31 and EX1005 ¶ 103). A POSITA would have readily understood this

correspondence given that the claimed “first reproducing mode” recites the narrowest set of image information, the “second reproducing mode” recites a broader set, and the “third reproducing mode” recites the broadest set. FWD 55-56.

As Petitioners explained, Dr. Bederson opined, and the Board concluded, the “first reproducing mode” in claim 12 corresponds to Haitani’s mode that uses three filters (because that combination produces the narrowest result), while the “third reproducing mode” corresponds to Haitani’s mode that uses only one filter. FWD 56-57. A POSITA would have readily understood that modes employing different combinations of filters reproduce different sets of image information, and that various combinations could satisfy the straightforward claim language here. Hearing Tr. (Paper 34) at 42-43.

PO has repeatedly conflated “modes” and “filters” throughout this proceeding, and now it does so again to suggest that Petitioners argued the reverse—that Haitani’s three-filter mode corresponds to the claimed “third reproducing mode” and that its one-filter mode corresponds to the claimed “first reproducing mode.” Petitioners made no such argument, as the Board correctly recognized. No inconsistency exists in Petitioners’ submissions or in the Board’s findings. The Director should reject PO’s arguments.

III. CONCLUSION

For these reasons, PO’s Request for Director Review should be denied.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§ 42.6(e) and 42.105 that on December 12, 2025, a true and correct copy of the Petitioners' Authorized Response to Patent Owner's Request for Director Review of the Final Written Decision was served by emailing a copy of same (by agreement) to the following attorneys for the Patent Owner:

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