

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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

v.

MAXELL, LTD.,  
Patent Owner

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Case IPR2024-00867  
U.S. Patent No. 10,176,848

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**PATENT OWNER'S SUR-REPLY**

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Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
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| 2001               | 1st Amended Docket Control Order from District Court Litigation |
| 2002               | Original Docket Control Order from District Court Litigation    |
| 2003               | Maxell's Supplemental Preliminary Election of Asserted Claims   |
| 2004               | Defendants' Preliminary Election of Prior Art                   |
| 2005               | U.S. Patent Application No. 2009/0135269                        |
| 2006               | U.S. Patent No. 8,488,847                                       |
| 2007               | Samsung invalidity contentions (Gallagher)                      |
| 2008               | Samsung invalidity contentions (Nakashima)                      |
| 2009               | U.S. Patent Application No. 2007/0098303                        |
| 2010               | U.S. Patent Application No. 2007/0019083                        |
| 2011               | CNET Iphone Article                                             |
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| 2014               | iPhone User Guide IOS 12—Find people in Photos                  |
| 2015               | iPhone User Guide IOS 18—Find people in Photos                  |
| 2016               | iPhone User Guide IOS 13—Find people in Photos                  |
| 2017               | iPhone User Guide IOS 14—Find people in Photos                  |
| 2018               | iPhone User Guide IOS 15—Find people in Photos                  |
| 2019               | iPhone User Guide IOS 16—Find people in Photos                  |

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U.S. Patent No. 10,176,848  
Patent Owner Sur-Reply

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| 2020 | iPhone User Guide IOS 17—Find people in Photos        |
| 2021 | Apple Support—Use the People & Pets Album             |
| 2022 | Google Photos Help—Set up & manage your face groups   |
| 2023 | Microsoft Support—Group photos by faces               |
| 2024 | Amazon Help & Customer Service—Learn More about image |
| 2025 | Nikon Press Release                                   |
| 2026 | JP No. 2008-130678                                    |
| 2027 | U.S. Patent No. 9,159.368                             |
| 2028 | PC Mag Dictionary                                     |
| 2029 | McGraw-Hill Dictionary                                |
| 2030 | Declaration of Ravin Balakrishnan, Ph.D.              |
| 2031 | Deposition of Benjamin B. Bederson (January 23, 2025) |

## **I. INTRODUCTION**

Samsung's reply fails to meaningfully rebut any of Maxell's arguments presented in its Patent Owner Response and offers no sound argument that its references invalidate U.S. Patent No. 10,176,848 under a proper reading of the claims.

While Petitioners "do not necessarily object" to the concept of "mode" as "an operational state that a system has been switched to," it would be improper to include a "filter" as defined by Petitioners within that construction. As discussed below, the '848 Patent discloses that a user selects between distinct modes—standard, express, and superexpress—each with predetermined threshold values stored in the system controller's memory. Petitioners' attempt to equate "filters" with the claimed "mode" improperly broadens the scope of the claims beyond what is supported by the intrinsic evidence and the patent specification.

Even if the Board does not adopt Maxell's proposed construction, the prior art references cited by Petitioner—Nozaki, Haitani, Graham, and Kim—are not analogous or in the same field of endeavor as the '848 Patent, and a POSITA would not have been motivated to combine these references. Petitioners' arguments rely on hindsight and improper expansion of claim scope, fail to provide sufficient evidence, and in some instances introduce new theories of unpatentability not present in the

original Petition. Lastly, the cited prior art does not disclose key limitations of the challenged claims, such as the presence of distinct operational modes that result in different reproducing times between the modes. As a result, the Petitioners have not met their burden to show by a preponderance of the evidence that any of the challenged claims of the '848 Patent are unpatentable.

## **II. CLAIM CONSTRUCTION**

### **A. Construing “Mode” As “An Operational State That A System Has Been Switched To” Would Not Exclude Embodiments of the '848 Patent**

Petitioners do not object to “mode” as an “operational state that a system has been switched to” but object to Patent Owner’s exclusion of filters from that construction. Reply at 1. Petitioners agree with Patent Owner that the '848 Patent describes a “chapter selecting reproducing function” that has three reproducing modes. Reply at 2. Petitioners argue that a POSITA would understand that the three reproducing modes “employ user-selected filters (thresholds) to selectively reproduce video chapters based on whether the chapters’ importance level meets the threshold criteria.” Reply at 3. This is incorrect for several reasons.

First, Petitioners’ attempt in their Reply to equate a “user-selected filter” with a “threshold” should be rejected. Nowhere in the Petition do Petitioners raise an argument that a “filter” is equivalent to a “threshold”—as such, that argument is

waived. *Ex Parte David Recchia, Timothy Gotsick, & Ryan Vest*, 2021 WL 2286993, at \*5 (P.T.A.B. June 3, 2021) (“Arguments which [] could have [been] made but did not make . . . are deemed to be waived.”).

Second, “filter” is not a term that appears in the ’848 Patent. Thus, Petitioners’ late argument that a “user-selected filter” is equivalent to a “threshold” is not supported by the intrinsic record. Third, Dr. Balakrishnan does **not** agree that “a threshold is a type of filter” as Petitioners assert. Rather, Dr. Balakrishnan states that a filter **uses** “patterns, masks, or some kind of criteria to compare data and only data that matches that criteria [] would pass through that filter.” He goes on to say that criteria like a threshold could be used as one parameter of a filter, but in no place did Dr. Balakrishnan equate a “threshold” with a “filter.” EX1018 at 47:18-48:9. This is entirely consistent with the distinction made between “mode” and “filter” in his declaration and the prior art. EX2030 at ¶¶77-86.

Petitioners also mischaracterize Dr. Balakrishnan’s testimony when they argue that “multiple modes using a single algorithm that switches filters (thresholds) . . . are not distinct ‘reproducing modes’” would render Patent Owner’s construction invalid. Reply at 4. This is not so. First, Petitioners incorrectly state that ’848 Patent’s “reproducing modes employ user-selected filters (thresholds)” in the chapter selecting reproducing function algorithm. Reply at 3. Petitioners

statement that the user is selecting threshold values is pure attorney argument—there is no evidence that the user can select the threshold value of the modes. Rather, as Dr. Bederson admits, the “predetermined threshold value” for each mode is stored in the system controller’s internal memory. EX1001 at 10:8; 10:20-21; EX1017 at 4 n.1 (“In the patent, chapters have importance levels of 1, 3, or 5.) The user selects between the *modes*—standard, express, and superexpress—from a menu. EX1001 at 9:20-22, 9:29-9:30, 9:46-47. Petitioners agree that these threshold values do not correspond to the claimed reproduction modes, instead erroneously equating the threshold values with filters which are employed by the claimed reproduction modes. Reply at 2 (“each mode applies a different filter (a ‘threshold’ . . .);” Reply at 3 (“A POSITA would understand from these disclosures that the specification’s reproducing modes employ user-selected filters (thresholds) . . .”)

Next, Petitioners’ contention that Dr. Balakrishnan’s opinions are not consistent with the embodiments of the ’848 Patent is incorrect. Dr. Balakrishnan opined:

Q: And so running a single algorithm where you’re just switching out the filtering criteria is not – each criteria that you’re using as a filter is not an indicator of a different mode; is that what you’re saying?

A: . . . [T]hat is my high-level opinion, yeah, on this issue.

EX1018 at 54:19-55:3.

As explained by Dr. Balakrishnan, the user does not select different filtering criteria but “different modes **that yield different operations.**” EX2030 at ¶ 141. Each mode “chooses specific chapters and play[s] back select information . . . [and does not] merely separate data based on user input.” *Id.* At his deposition Dr. Balakrishnan testified that the reproducing modes examples set forth in the ’848 Patent “are separate modes . . . [that] have different states, different operational states. It has switched the system into, one case, standard, the other express, and the other one superexpress.” EX1018 at 49:9-14.

Further, Dr. Balakrishnan opines that if a user is choosing from a menu to change modes, that indicates multiple distinct modes whereas adjusting a criteria within a mode would indicate a single mode. *Id.* at 51:12-52-6. The “standard,” “express,” and “superexpress” modes are distinct modes entered into from other modes. EX1018 at 49:12-14; EX1001 at 4:36-42 (“[A] reproduction button of the user interface is depressed after a reproduction mode is selected upon operation of the user interface.”); *Id.* 10:9-13 (“[A]fter the ‘standard reproducing mode’, ‘express reproducing mode’ or ‘superexpress reproducing mode’ is selected the system controller starts the chapter selected reproducing process.”); *Id.* at 11:4-35 (“Fig. 12 illustrates a scene list screen . . . [where] the reproducing operation by the above-described reproducing method can be performed.”)

The term “filter” is not used in the ’848 Patent; thus, no intrinsic evidence supports Petitioners’ position that construction of mode includes filters. As discussed below in Section II.B, Petitioners’ “new” construction (*i.e.* equating a filter with a threshold and including filters within “mode”) is improper.

The intrinsic evidence therefore supports Patent Owner’s proposed construction of “mode” and does not support Petitioners’ “new” construction (*i.e.* equating a filter with a threshold and including filters within “mode”).

**B. Extrinsic Evidence Further Supports Patent Owner’s Proposed Construction “Mode” As “An Operational State That A System Has Been Switched To”**

Petitioners also argue that a plain and ordinary construction of “mode” includes filters despite claiming that “mode” requires no construction. To blur the distinction between a “mode” and a “filter” Petitioners argue that a “POSITA would have known that these two definitions can be interpreted in view of each other as encompassing ‘modes’ that consist of alternative methods of operating a device via ‘filters’ for separating data in accordance with a specified criteria.” Reply at 5. As “filter” is not used in the Patent, extrinsic evidence must be used to define filter. In Patent Owner’s response, Patent Owner supplied the definition of “filter” from the 2003 McGraw-Hill Dictionary. POR at 15 (“a device or program that separates data or signals in accordance with specified criteria.”). Petitioners also mischaracterize

Dr. Balakrishnan’s testimony (as explained above) to define “a threshold [as] a type of filter.” Reply at 3 n.2. However, adding the definition of filter to the construction of “mode” would expand the scope of the Patent beyond the specification; there is no support for doing so. The ’848 Patent specification does not disclose a user specifying threshold values; they are predetermined values. EX1001 at 10:8; 10:20-21; EX1017 at 4 n.1. The ’848 Patent also does not disclose operating a device via filters for separating data in accordance with a specified criteria.

Because construing “mode” to include user “specified criteria” would “contradict claim meaning that is unambiguous in light of the intrinsic evidence,” the Board should reject Petitioners’ proposed construction. *Summit 6, LLC v. Samsung Elecs. Co. Ltd.*, 802 F.3d 1283, 1290 (Fed. Cir. 2015); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (Patent claims cannot be expanded beyond “their broadest reasonable interpretation consistent with the specification.”). Thus, the Board should adopt Patent Owner’s construction of “mode” as “an operational state that a system has been switched to” and reject a construction that includes filters.

**III. GROUND 1: NOZAKI IN VIEW OF HAITANI DOES NOT RENDER CLAIMS 11-12, 16-17, AND 19-20 UNPATENTABLE**

**A. A POSITA Would Not Have Found It Obvious to Combine Nozaki and Haitani For Claims 11-12, 16-17, And 19-20.**

**1. Nozaki And Haitani Are Not in the Same Field of Endeavor as the '848 Patent.**

A patent's field of endeavor is determined "by reference to explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention." *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). The field of endeavor is "not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field." *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1001 (Fed. Cir. 2016). "[T]he scope of any field of endeavor will vary with the factual description of each invention." *Bigio*, 381 F.3d at 1326. The determination should use "the foresight of a person of ordinary skill, not with the hindsight of the inventor's successful achievement." *See Sci. Plastic Prod., Inc. v. Biotage AB*, 766 F.3d 1355, 1359 (Fed. Cir. 2014); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) ("A factfinder should be aware, of course, of the distortion caused by hindsight bias . . ."); *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992) ("The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention

only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness.”).

Petitioners mistakenly state that Patent Owner concedes that “the ’848 Patent, Nozaki, and Haitani all relate to recording and reproducing apparatuses.” Reply at 6 (citing EX2030 at ¶ 114; POR at 21). In that citation, Patent Owner states that the “’848 Patent discloses a ‘reproduction and reproducing apparatus’ and Nozaki and Haitani each disclose **digital cameras**.” POR at 21; EX2030 at ¶ 114 (same). Contrary to Petitioners’ characterization, throughout the POR Patent Owner consistently asserts that the appropriate field of endeavor for the ’848 Patent is “image recording and reproduction,” not simply a digital camera. POR at 4 (“Prior to the ’848 Patent, recording and reproducing apparatuses . . .”); *Id.* at 5 (“This manner of recoding and reproducing images and video information allows users of recording and reproducing apparatus . . .”); *Id.* at 6 (“the ’848 Patent discloses a novel video recording and reproducing apparatus”); *Id.* at 7 (“A ‘person of ordinary skill in the art’ in the field of the ’848 Patent would have had a working knowledge of image recording and reproduction, and face recognition technology . . . at least one year of experience working in the field of image recording and reproduction.”).

Petitioners also repeat the same vague, conclusory, and unsupported statements presented in their Petition in stating that Nozaki and Haitani are

analogous art to the '848 Patent. For the reasons stated in the Patent Owner Response, these arguments fall flat.

**2. Petitioners Fail To Show That Nozaki Discloses A Filter.**

Petitioners contest that Dr. Bederson “concedes that Nozaki has no disclosure to sort images, nor contemplates the inclusion of such a method.” Reply at 8. Petitioners are incorrect; Petitioners make the same concession in the Petition. Pet. at 8. Dr. Bederson clearly states “Although Nozaki discloses reproducing image/video files (e.g. face-recognition, time/date data, event data, etc.), **Nozaki does not explore the ways that recorded information can be used to tailor the reproduction search process to produce broader or narrower results.**” EX1005 at ¶ 67. Petitioners state that they would explain how this is not a concession in element [8i] later in their reply. Reply at 8. Petitioners failed to do so. Reply at 9-12. Instead, Petitioners include references to Dr. Bederson’s declaration at ¶¶ 87-93. Reply at 11. These paragraphs simply restate Dr. Bederson’s concession. EX1005 at ¶¶ 87, 90.

The Petition does not characterize any “filtering” done by Nozaki; rather, the Petition relies on adding Haitani’s alleged “filtered search and reproduction feature” into Nozaki. Pet. at 24. In their Reply, Petitioners insert new attorney argument that Nozaki’s paragraphs [0150]-[0153] disclose a filter that produces a subset of photos

of one person from the total photos based on “face recognizing data.” Reply at 9-10. Paragraphs [0150]-[0153] do not disclose a filter that runs on the set of total data. Instead, in face registration mode, Nozaki “generates the face recognizing data of a registered person by referring to the feature points of the detected face, the sizes of face parts . . . relative distances between individual feature points.” EX1006 at ¶ 0054. These data points are stored in the face registration memory and are used for facial recognition at capture. *Id.* at ¶ 0055. Various capture control settings are also recorded in the face registration memory including **“the setting of recording destination of shooting image data.”** *Id.* at ¶ 0056. Nozaki does not disclose a memory that is sortable by person, rather it discloses storing photos associated with each registered person in a different memory folder upon creation of each image. *Id.* at 57. (“In the setting of recording destination (3) a directory path of the record folder inside the recording medium 29, which acts as a recording destination of the shooting image data, can be specified for each registered person. In other words, the CPU 26 is able to record the shooting image data **in a record folder different for each register person by referring to data in the face registration memory.**”)

Petitioners fail to adequately explain how Nozaki describes a filter or how Nozaki selectively reproduces image information using captured image information. Instead, Nozaki discloses that it has a different folder for each registered photo and

stores photos of different individuals in separate locations. A POSITA would not be motivated to combine the teachings of Nozaki and Haitani because they are directed to solving different problems and use different technology and structures to solve these problems. EX2030, ¶116. For these reasons and for those in the POR, Petitioners have failed to meet their burden.

**B. A POSITA Would Not Have Found It Obvious To Combine Nozaki And Haitani To Disclose Limitation [8.i] of Claim 8.**

Petitioners argue that ¶¶[0150] - [0153] of Nozaki discloses a filter on all images stored on a device based on face recognizing data so that only the images associated with the registered person are displayed. Reply at 10-11. As discussed in Section III.A.2, Nozaki discloses that profiles are created so that each person's recognized faces are stored in different folders on creation, not that a sort occurs on all photos upon selection of face registration images.

Similarly, Petitioners argue that Nozaki discloses a regeneration mode for selecting and reproducing saved images. Pet. at 11; EX1006 at ¶¶ 92-93. These paragraphs do not disclose any selection or reproduction. Instead, these paragraphs disclose that while taking photos recognized individuals are saved to a unique user location on a different folder path upon creation of the photo. *Id.*

For these reasons and the reasons stated in the POR, Petitioners' arguments with respect to limitation [8.i] are unsupported and should be rejected.

**C. Nozaki In View Of Haitani Does Not Disclose Limitation [11.a] Of Claim 11.**

Petitioners mischaracterize the POR and rely on their incorrect construction of “modes.” *See* Reply at 12-14; *see also supra* at Section II. For example, Petitioners argue that Patent Owner’s issue with Haitani’s filters is that the filters are selected from a menu. Reply at 12. This misses the point. Selecting different filters does not put Haitani into different operational states and, thus, different modes. Rather Haitani operates in a single review mode state. POR at 26. This is consistent with, for example, how Dr. Bederson explains in his publication selection of a mode from a menu (between selection mode and zoom mode) as distinct from the filtering techniques. POR at 17-19; *see also* EX1012 at 4, 20, Fig. 3; EX2031 at 6:13-10:6 (testifying as to the graphical user interface (GUI) of the SAPHARI system operating in either the selection or zoom modes depending on which mode selected by the user); *compare id.* (discussion of the selection and zoom modes of the SAPHARI system) *with id.* at 10:8-12:15 (discussion of clustering feature to group photos in the SAPHARI system). This is also consistent with how Haitani distinguishes between modes and filters. *E.g.*, EX1007, at 11:15-23; 20:64-21:2.

Petitioners also mistake Patent Owner’s arguments about “wholly different processing operations.” As discussed above in Section II.A, each of the ’848 reproduction modes are distinct modes entered into from other modes. EX1018 at

49:12-14; EX1001 at 4:36-4; 10:9-13. Nozaki discusses distinct modes, (“face recognition shooting,” “face registration,” “scene assist” See EX1006 at Figure 3(a), [0063], [0085]; EX2030 at ¶134) but does not disclose the filters pointed to by Petitioners as “modes.” Rather, these filters pass data based on users’ inputs and are never described by Nozaki as separate reproduction modes. See POR at 27-29.

As discussed above in Section III.A.2, Petitioners and Dr. Bederson admit that Nozaki does not disclose a sort function but try to overcome this deficiency by arguing in conclusory fashion that a POSITA would recognize that Nozaki “already suggests sorting the index images.” There is no explanation or evidence supporting the assertion on a POSITA recognizing sorting of index images in Nozaki.

Petitioners also argue that the Nozaki-Haitani combination would still disclose [11.a] under Patent Owner’s construction because a “POSITA would have understood that switching reproducing modes in the modified Nozaki-Haitani device constitutes switching the operational states of the device because the functions of the device (e.g., search and reproduce) would operate differently depending upon the filter(s) that each mode included. Reply at 14. This argument also fails as it is based on improper hindsight and there is no articulation of a reason why selecting a filter within the **same** mode would cause the device to operate in a different mode. As discussed in Section II.A, the ’848 Patent discloses selecting various modes, but does

not support changing predetermined threshold values of any given mode or causing the device to operate in a different mode just because the predetermined threshold value of a particular mode is changed.

In short, Petitioners have not shown by a preponderance of the evidence that Nozaki in view of Haitani discloses limitation [11.a] of the '848 Patent.

**D. Nozaki In View Of Haitani Does Not Disclose Limitation [11.b] Of Claim 11.**

Petitioners take issue with a construction of “mode” that fails to include filters. As described in Section II, the proper construction of “mode” is “operational state that a system has been switched to” and does not include filters.

Petitioners inappropriately apply Dr. Balakrishnan’s testimony on the functioning of the '848 Patent to all prior art throughout its Reply, attempting to bolster their hindsight-driven analysis. For example:

PO’s expert, however, testified that a POSITA would easily know how the embodiments meet the “temporal element of” of limitation [11b], stating that “if you’re saying I’m going to reproduce five chapters as opposed to reproduce three chapters, then I think, by definition, each one of those are going to be different reproducing times.” EX1018, 39:19-41:12 (“[I]t takes more time to read two images that it takes to read one image. . . . assum[ing] that both images are of the same size, et cetera.”)

Reply at 14-15. As another example Petitioners assert the following:

PO also overlooks that “reproducing times” can—by Dr. Balakrishnan’s admission—also include the on-screen display time of the image information. EX1018, 28:17-30:10.

Reply at 15.

These are not fair characterizations of Dr. Balakrishnan’s testimony. Dr. Balakrishnan clearly is referencing the three reproducing modes disclosed in the ’848 Patent. EX1018 at 39:19-41:12. Additionally, Dr. Balakrishnan clearly does not equate processing time (typically measured in milliseconds) with reproduction time for user review (measured in seconds). EX1018, 28:17-30:10. Petitioners’ claim that “ Thus, Nozaki and Haitani disclose the ‘temporal element’ of this limitation...” is a *non sequitur*. Reply at 15.

Instead, Petitioners ignore Patent Owner’s argument, supported by Dr. Balakrishnan, that every system and every filtering and display process operates differently. POR at 36; EX2030, ¶162. “The time taken to filter data and display results is dependent on many factors including the type of data and how it’s structured and indexed and cannot simplistically be attributed to the number of data items ultimately displayed.” *Id.* Dr. Balakrishnan correctly opines that the reproduction time of a generic device depends on the device-specific time taken to retrieve data from a storage device and display it on a display. EX2030, ¶¶162-164. He also opines that a POSITA would read the ’848 Patent specification to find that

it clearly articulates that the '848 Patent's various modes operate in different ways that result in the superexpress mode being faster than the express mode:

Q: “[Where] you have a device and you searched for and reproduced image information that consists of five photographs . . . [w]hat would be the reproducing time?

A: . . . “[I]t would be the time taken to put that on the screen – to retrieve it from the storage medium and put it on the screen.”

EX1018 at 30:21-31:12.

Q: . . . **[I]n the context** of the '848 Patent . . . how would this limitation be met by **the embodiment**?

A: . . . So in one situation it would have more information that – more information than the first reproduction mode, but also include with is in the first reproduction.

EX1018 at 43:2-18.

Petitioners fail to show any evidence within Haitani or Nozaki to demonstrate a reproducing time for a first mode that would be shorter than a reproducing time for a second mode. Reply at 14-15; POR at 35-37. Haitani's “filter” is intended to narrow down the “number of images,” not to specify the “reproducing time of images.” Pet. at 29. Petitioners point to a “time-filter” and an “event related” filter, (Pet. at 27) but these filters are discussed alongside Haitani's other filters and also simply narrow down the number of images (EX1007 at 11:2-3), and do not disclose

reproducing modes with different reproducing times. Nozaki also makes no mention of multiple reproducing modes with different reproducing times. As Dr. Bederson conceded, “I don’t recall a specific place where Haitani expressly says that it would take more time to display more items.” EX2031, at 55:13-56:3.

For the reasons stated here and in the POR, Nozaki and Haitani fail to disclose limitation [11.b].

**E. Nozaki In View Of Haitani Does Not Disclose Limitation [11.c] Of Claim 11.**

As described in Section II, the proper construction of “mode” is “operational state that a system has been switched to” and does not include filters.

Petitioners state that multiple filters potentially reproducing the entire universe of face-recognition images such that there would be complete overlap between the two sets of images is a strawman argument. Reply at 15. Petitioners fail to explain why this is a strawman argument, and ignore the example provided by Patent Owner that discloses a possible reproduction of the entire universe of face-recognition images. POR at 38. Contrary to Petitioners’ Reply, this is not an unreasonable assumption, as explained by Dr. Bederson: “you could perform an additional filter that did not change the set of photos or videos displayed.” EX2031 at 60:3-12.

Petitioners state that Patent Owner’s scenario and Dr. Bederson’s statement rely on unreasonable assumptions “in view of Haitani’s express and repeated focus on avoiding ‘complete overlap.’” Reply at 16. The excerpt that Petitioners provides to show Haitani’s express focus to avoid overlap states that a device “**can reduce** the number of files through which a user needs to sort through.” Reply at 16; EX1007 at 10:61-66. It is not an unreasonable assumption that a device that **can** reduce the number of files does not **always** reduce the number of files, or that it would be obvious to do so.

For the reasons stated here and in the POR, Nozaki and Haitani fail to disclose limitation [11.c].

**F. Nozaki In View Of Haitani Does Not Disclose Limitation [12.a] Of Claim 12.**

As described in Section II, the proper construction of “mode” is “operational state that a system has been switched to” and does not include filters.

Petitioners continue to fail to clearly identify first, second, and third modes. In response to the argument (POR at 39) 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,” Petitioners in conclusory fashion state that “This is incorrect” with no further explanation. Reply at 16. Petitioners fail

to identify first, second and third modes. *See* POR at 39-40. Dr. Bederson admitted this during his deposition:

Q: [Y]ou're not limiting yourself to a particular filter as applied to each respective mode?

A: That's right. I'm relying on Haitani's general use of filtering, and I provide some examples of possible filters that a person of skill in the art reading Haitani would understand.

EX2031 at 62:15-25. In fact, Dr. Bederson admits he would need to reverse his identification of the filters in order to meet limitation 12(b):

The three modes I gave examples for regarding limitation 12(a) would actually have to be reversed to meet the limitation 12(b). So the longer one, the third mode, would be only one filter, not all three filters. I just want to make it clear that filters 1, 2, and 3 from 12(a) were examples that met 12(a), but if you want to use those same examples for 12(b), then the third mode would have to apply to the example where there was only one filter, not all three filters.

EX2031 at 65:11-66:7. This flip-flopping of claim limitations to fit Petitioners' narrative further exposes the hindsight-driven analysis upon which the Petition is based.

For the reasons stated here and in the POR, Nozaki and Haitani fail to disclose limitation [12.a].

**G. Nozaki In View Of Haitani Does Not Disclose Limitation [12.b] Of Claim 12.**

As described in Section II, the proper construction of “mode” is “operational state that a system has been switched to” and does not include filters.

For the reasons discussed in Section III.1.d, Petitioners fail to show any intrinsic evidence within Haitani or any extrinsic evidence to demonstrate a reproducing time for a first mode that would be shorter than a reproducing time for a second mode or a third mode.

Petitioners incorrectly assert that Dr. Bederson’s applies the first, second, and third reproduction modes consistently. Petitioners fail to respond to arguments in the POR at 41-42 and fail to explain Dr. Bederson’s agreement to the statement: “[I]n 12(a), you characterize the **first mode** as a face registration mode, but that would have to be the **third mode** in element 12(b).” EX2031 at 65:11-66:7.

For the reasons stated here and in the POR, Nozaki and Haitani fail to disclose limitation [12.b].

**H. Limitations [13h]-[13j], [16a]-[16c], [17a]-[17b], [18g]-[18i], [19a]-[19c], [20a]-[20b].**

Petitioners do not raise any new arguments for these limitations. For the reasons stated here and in the POR, Nozaki and Haitani fail to disclose these limitations.

**I. Limitations [16a], [17a], [19a], and [20a]**

Patent Owner addressed these limitations in the POR at 44. Petitioners now assert that the sections addressing Claims [13.j] or [18.i] address limitations of Claims [16a], [17a], [19a], and [20a]. Petitioners did not incorporate Claims [13.j] or [18.i] in their Petition. Petitioners missed their opportunity to include these theories in this proceeding. *Corephotonics, Ltd. v. Apple Inc.*, 84 F.4th 990, 1008 (Fed. Cir. 2023) (expressly restricting a petitioner’s reply from raising “**new** theor[ies] of unpatentability.”) The Board should not consider the untimely offer of proof for these limitations. This failure of proof is fatal to Petitioners’ analysis for Claims 16-17, 19-20. *See* EX2030 at ¶¶ 199, 203, 210, 214.

**IV. GROUND 2: NOZAKI IN VIEW OF HAITANI IN FURTHER VIEW OF GRAHAM DOES NOT RENDER CLAIM 84 OBVIOUS**

**A. A POSITA Would Not Have Found It Obvious To Combine Nozaki, Haitani, And Graham For Claim 84**

For the reasons stated in Section III.B, A POSITA would not have found it obvious to combine Nozaki, and Haitani.

Contrary to Petitioners’ assertion that “Ground 2 identifies the alleged combination, with Nozaki as the primary reference and Haitani and Graham serving as secondary references . . . The Petition explains why and how a POSITA would have modified the Nozaki device in view of Haitani and Graham,” the Petition and Dr. Bederson only discuss modifying Nozaki with Graham and do not discuss

incorporating Graham in the Nozaki-Haitani combination. EX2030 at ¶ 221; Pet. at 37-38. Petitioners assert that this discussion occurs later in limitation specific arguments (Reply at 20) but in those limitations as well, the Petitioners fail to discuss incorporating Graham in the Nozaki-Haitani combinations. *See* Pet. at 42-51.

For the reasons stated here and in the POR, a POSITA would not combine Nozaki, Haitani, and Graham.

**B. A POSITA Would Not Have Found It Obvious To Combine Nozaki With Haitani To Disclose Limitation [84.d] Of Claim 84**

For the reasons stated in Section III.B, A POSITA would not have found it obvious to combine Nozaki and Haitani.

**C. A POSITA Would Not Have Found It Obvious To Combine Nozaki With Haitani and Graham To Disclose Limitation [84.h.i] Of Claim 84**

For the reasons stated in Section IV.A, a POSITA would not have found it obvious to combine Nozaki, Haitani, and Graham and Petitioners fail to argue that it would be obvious to combine Nozaki, Haitani, and Graham.

Petitioners also assert that Patent Owner's arguments are conclusory. The POR shows, supported by evidence, that Graham is solving a different problem with different hardware than Nozaki. POR at 55-56 (citing EX2030 at ¶239).

For the reasons stated here and in the POR, a POSITA would not combine Nozaki, Haitani, and Graham.

**D. Limitations [84.c.vii], [84.h.ii]**

Petitioners do not raise any new arguments for these limitations. For the reasons stated here and in the POR, Nozaki and Haitani fail to disclose these limitations.

**V. GROUND 3: NOZAKI IN VIEW OF HAITANI IN FURTHER VIEW OF KIM DOES NOT RENDER CLAIM 84 OBVIOUS**

**A. A POSITA Would Not Have Found It Obvious To Combine Nozaki, Haitani, And Kim For Claim 84**

Petitioners do not raise any new arguments for this combination. Petitioners fail to argue that would be obvious to combine Nozaki, Haitani, and Kim. Instead Petitioners argued that it would be obvious to combine Nozaki and Haitani and separately argue it would obvious to combine Nozaki and Kim. For the reasons stated in Sections III.A, IV.A, and in the POR, a POSITA would not combine Nozaki, Haitani, and Kim.

**B. A POSITA Would Not Have Found It Obvious To Combine Nozaki With Kim To Disclose Limitation [84.h.i] Of Claim 84**

For the reasons stated in Section V.A, a POSITA would not have found it obvious to combine Nozaki, Haitani, and Kim.

Petitioners also assert Patent Owner ignores Petitioners' evidence while ignoring Patent Owner's substantive arguments. Reply at 24 (Patent Owner's "argument ignores the very portions of the Petition that the POR includes in block

quotes . . . .”) Patent Owner’s next sentence addresses the Petition citation which Petitioners fail to acknowledge. “But Petitioners and Dr. Bederson point to nothing in Kim that would suggest its multimedia content indexing technique is compatible with Nozaki.” POR at 64. Petitioners fail to engage with Patent Owner’s analysis.

For the reasons stated here and in the POR, a POSITA would not combine Nozaki, Haitani, and Kim.

**C. Limitations [84.c.vii], [84.h.ii], [84.d]**

Petitioners do not raise any new arguments for these limitations. For the reasons stated here and in the POR, Nozaki, Haitani, and Kim fail to disclose these limitations.

**VI. CONCLUSION**

For at least the reasons set forth in Patent Owner’s Response and herein, the Board should conform patentability of Claims 11-12, 16-17, 19-20, and 84.

Dated: June 5, 2025

Respectfully submitted,

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Case IPR2024-00867  
U.S. Patent No. 10,176,848  
Patent Owner Sur-Reply

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Case IPR2024-00867  
U.S. Patent No. 10,176,848  
Patent Owner Sur-Reply

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

I hereby certify that the foregoing Patent Owner's Sur-Reply contains 5,528 words as measured by the word-processing software used to prepare the document, in compliance with 37 C.F.R. § 42.24(d).

Dated: June 5, 2025

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Patent Owner Sur-Reply

**CERTIFICATE OF SERVICE**

I hereby certify that, on June 5, 2025, I caused a true and correct copy of Patent Owner's Sur-Reply Pursuant to 37 C.F.R. §42.107 to be served via email to the following counsel for Petitioner:

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