

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

HANSHOW AMERICA INC.,
HANSHOW TECHNOLOGY CO., LTD.,

Petitioners

v.

SES-IMAGOTAG INC.

Patent Owner

Case No.: IPR2024-00208

Patent No. 11,010,709

PETITIONER'S PRELIMINARY REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE

LIST OF EXHIBITS¹

Exhibit No.	Description
1001	U.S. Patent No. 11,010,709
1002	Prosecution History of U.S. Patent No. 11,010,709
1003	U.S. Patent No. 9,378,513 (“Wu”)
1004	U.S. Patent Application Publication No. 2017/0293959A1 (“Itou”)
1005	U.S. Patent Application Publication No. 2013/0325638A1 (“Auclair”)
1006	U.S. Patent Application Publication No. 2009/0231135A1 (“Chaves”)
1007	Certified translation of Japan Patent Application Publication No. 2008-77131A by Fujiwara (“Fujiwara”)
1008	Japan Patent Application Publication No. 2008-77131A by Fujiwara
1009	Declaration of Dr. Manos M. Tentzeris
1010	<i>Curriculum Vitae</i> of Dr. Manos M. Tentzeris
1011*	PTAB Email dated 03.06.2024 re IPR2024-0208

¹ Petitioners have noted new exhibits with “*”.

I. Introduction

The Patent Owner’s Preliminary Response (“POPR”) urges the Board to deny institution under 35 U.S.C. § 325(d), arguing that the USPTO (“this Office”) reviewed “the same or substantially the same prior art or arguments” while prosecuting the challenged patent (the “’709 Patent”). *See* 35 U.S.C. § 325(d) (2023). PO claims the prior art reviewed — U.S. Pat. Appl. Publ. 2015/0178767A1 (“Wu Publ.”) — is substantively identical to the Wu patent (“Wu”) cited in the Petition. But PO’s arguments are misleading for at least two reasons. First, despite clear statutory language, PO bases its claims on analyses by *foreign* patent agencies, not by this Office. *See* POPR, 20-33. Thus, contrary to law, PO treats analyses of Wu Publ. by foreign patent agencies as equivalent to review by this Office. *See* POPR, 20-25, 30-32). Second, PO mischaracterizes Petitioners’ invalidity arguments to conflate them with the arguments that the foreign patent agencies evaluated. *See* POPR 25-28. As discussed below, even if the Board considers the foreign analyses relevant to discretionary denial (they are not), Petitioners present different invalidity arguments than those the foreign agencies considered. *See* Pet., 6-90.

PO also urges the Board to deny institution under 35 U.S.C. § 314(a) based on arguments which depart from the express definition of “planogram” in the ’709 patent. In doing so, PO seeks to import into the claims vague requirements that

appear nowhere in the intrinsic record. For the reasons set forth herein, and in the Petition and its accompanying papers, Petitioners have shown they are at least reasonably likely to succeed in proving one or more of the challenged claims invalid. The Board should therefore institute IPR2024-00208.

II. Discretionary Denial Under § 325(d) is Not Warranted.

Under the *Advanced Bionics* framework, PO's arguments do not justify discretionary denial because PO emphasizes the international prosecution rather than the domestic prosecution record, and glosses over the significant differences between Petitioner's arguments and those applied in the foreign examinations.²

The Board has adopted a two-step framework for its Section 325(d) analyses: (1) whether this Office reviewed the same (or substantially similar) prior art during prosecution and, if so, (2) whether the Petition has shown the Examiner materially erred. *See Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*,

² The Board should not consider PO's arguments based on exhibits that do not conform with the rules. *See* 37 C.F.R. § 42.63(b). PO relied on foreign-language exhibits filed without translations (*see* Exs. 2001 p.9, 2004), and PO's unattested machine translation of Ex. 2002 is nearly incomprehensible. *See, e.g.*, Ex. 2003, 6.

IPR 2019-01469, Paper 6 (PTAB Feb. 13, 2020). The Board considers at least the following six factors: (a) the similarity and differences between the asserted prior art and art reviewed during examination; (b) whether the asserted art is cumulative; (c) the extent of this Office's evaluation of the asserted art, including any use in a rejection; (d) the overlap between arguments in the Petition and in the examination; (e) whether Petitioner has shown the Examiner erred; and (f) whether additional facts and evidence warrant reconsideration. *See id.*, 8-10 & n. 10. Three factors (a, b and d) relate to Step 1 of the analysis, while the other three (c, e, and f) relate to Step 2. Here, all factors weigh against discretionary denial.

A. PO's arguments fail *Advanced Bionics* Part 1.

The first two *Advanced Bionics* factors weigh against discretionary denial for several reasons. First, even assuming Wu Publ. and Wu are identical, this Office never substantively evaluated Wu Publ. during examination. Analyses of Wu Publ. by foreign patent agencies do not satisfy Step 1 of *Advanced Bionics* because they are not reviews by "the Office" (*see* 35 U.S.C. § 325(d)) particularly where, as here, there is no evidence this Office substantively reviewed either those analyses or the Wu Publ. itself. And no Examiner, domestic or foreign, used Wu Publ. in a rejection.

Second, the foreign Examiners applied Wu Publ. in 2016 to patent claims materially different from the challenged claims of the '709 Patent. The foreign Examiners applied Wu Publ. to "all of PO's *then-pending* claims." *See* POPR, 8

(emphasis added); *see also* POPR, 10-11. But the pending claims of the foreign patent application in 2016 are not the challenged claims. *See* Ex. 1002 at 207-210. The challenged claims result from amendments made on October 7, 2020 to overcome a prior art rejection. *See* Ex. 1001, at 10:10-14:20; Ex. 1002 at 36-68.

This situation mirrors that in *Crowdstrike, Inc. v. Webroot Inc.*, IPR2023-00126, Paper 9, at 14 (PTAB May 5, 2023). The Board held that while prior art reviewed overseas (“Morris 340”) was similar to art cited in the Petition (“Morris”):

We cannot determine the extent to which Morris 340 was evaluated during the [foreign] examination because it was never used in a rejection. The PCT Written Opinion compared Morris 340 to the then-pending EPO claims, not the US claims. And because Morris 340 was not the basis of a rejection, there is no overlap of arguments. It is not clear there is enough similarity and overlap to move to the second step of the *Advanced Bionics* framework.

Id. The *Crowdstrike* Board rejected the §325(d) arguments based on Morris 340, just as this Board should reject PO’s arguments based on the Wu Publ.

Third, perhaps because the foreign Examiners applied Wu Publ. to different claims, they applied different disclosures from Wu Publ. than the Wu disclosures Petitioner cites, so any overlap in the arguments is minimal. PO cites to a “chart” it created based on Ex. 2001 to show the alleged “overlap” of mapping for one claim element. *See* POPR, 26-27. First, as discussed above in n.2, Ex. 2001 (and thus PO’s

chart) is inadmissible. But even if it were admissible, PO's chart ignores Petitioner's inherency argument, which makes up roughly 50% of Petitioner's argument about that claim element. *See* Pet., 23. PO further claims that a foreign Examiner's written opinion shows overlap of arguments regarding a second claim element. *See* POPR, 27. But that written opinion never considered Wu FIGS. 3B-3D, which form the nucleus of an obviousness argument key to Petitioner's case against that element. *See* Pet., 15-21; Ex. 1002, at 139. If PO's exhibits regarding the two selected claim elements show anything, they show any overlap is minimal.

Finally, each of Grounds 2-4 undisputedly includes prior art not before this Office during examination, which further undermines PO's Section 325(d) argument. While Wu is asserted in all grounds of the Petition, that fact alone would not satisfy the first prong of *Advanced Bionics* as to Grounds 2-4. *See Thorne Research, Inc. v. Trustees of Dartmouth College*, IPR2021-00491, Paper 18 at 8 (PTAB Aug. 12, 2021). The presence of these new, non-cumulative references weighs against discretionary denial for Grounds 2-4. *See Oticon Medical AB v. Cochlear Ltd.*, IPR2019-00975, Paper 15, 19-20 (PTAB Oct. 16, 2019) (a single new, non-cumulative reference, even if combined with art discussed during prosecution, can justify declining discretionary denial). Factor (d) — like factors (a) and (b) — also weighs against moving onto the second step of the *Advanced Bionics* analysis.

B. PO's arguments also fail *Advanced Bionics* Part 2.

But if the Board analyzes the second step of the *Advanced Bionics* framework, PO's arguments also fail. Factor (c) — the extent of this Office's evaluation of the art — also weighs against discretionary denial. As noted above, while Wu Publ. appears in the international prosecution record (*e.g.*, Ex. 1002, 23), this Office apparently did not evaluate its substance. PO argues that the search history shows this Office did consider Wu Publ. *See* POPR, 14-15, 24. But the Board rejected the same argument in *Google Inc. v. Blackberry Ltd.*, IPR 2017-00912, Paper 7, at 21 (PTAB Aug. 30, 2017). The Board held in *Google* that mere listing in the search history is not persuasive evidence of consideration absent evidence the Examiner specifically addressed the substance of the art. The domestic file history reflects no substantive evaluation or analysis of Wu Publ.

This situation, where the domestic Examiner did not evaluate or apply *any* argument related to Wu Publ., while the foreign Examiners applied different disclosures to different claims, readily distinguishes this case from those cited by PO. In those cases, including *Ocado Group PLC v. Autostore Tech. AS* and *Husky Injection Molding Sys. v. Plastipak Packaging, Inc.*, the domestic Examiner evaluated or applied substantially the same arguments and evidence as in the Petition. *See* IPR2021-00398, Paper 10, 19-20, 23 (PTAB Jul. 21, 2021); IPR2020-00438, Paper 23, 13 (PTAB Jul. 29, 2020). Because this Office never analyzed the

Wu Publ. it could not have carefully evaluated it.

PO cites other cases to support its position on factor (c). *See* POPR, at 30, 32. But those cases are inapposite because they address *whether* the Examiner *considered* prior art [a factor (a) issue], not *how* the Examiner *evaluated* that art [a factor (c) issue]. *See Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01529, Paper 16 at 17 n.8 (PTAB Mar. 21, 2023); *Sonos, Inc. v. Google, LLC*, IPR2021-00963, Paper 9 at 9–10 (PTAB Nov. 9, 2021). Factor (c) does not support discretionary denial.

Further, as in *Meta Platforms, Inc.*, the failure to analyze Wu Publ. suggests the Examiner did not fully appreciate the importance of that reference. *See Meta Platforms, Inc. v. Immersion Corp.*, IPR2023-00942, Paper 7, at 16 (PTAB Dec. 6, 2023) (“[T]he Examiner’s initials on the IDS indicate that [the prior art], the International Search Report, and the International Preliminary Report on Patentability were considered. Based on the totality of the evidence presented, however, we agree with Petitioner that the Examiner did not appreciate fully [the prior art]’s relevance to the claims....”). The Examiner’s failure to fully appreciate the importance of Wu Publ. (factor (e)) weighs against discretionary denial.

Finally, even if this Office had evaluated Wu or Wu Publ., which it did not, Petitioners have submitted additional evidence (including Dr. Tentzeris’ expert declaration) justifying reconsideration, including inherency and obviousness arguments never considered by any Examiner. *See, e.g.*, Pet., 15-17, 25-30; Ex. 1003,

¶¶80-86, ¶¶113-122. *See Samsung Elecs. Co., Ltd. v. XR Comm's. LLC*, IPR2022-00613, Paper 12, at 50 (PTAB Oct. 20, 2022) (expert testimony including opinions on how the prior art teaches certain limitations provides additional evidence not available to the Examiner). Thus, *Advanced Bionics* factor (f) weighs against discretionary denial.

III. Petitioners Are Reasonably Likely to Prevail with Respect to the Invalidity of at Least One Challenged Claim.

The Board may institute a petition for *inter partes* review when there is “a reasonable likelihood that the petitioner would prevail” on at least one challenged claim. 35 U.S.C. § 314(a). PO argues that the Petition fails to adequately address limitations [1.i] and [1.o] (present in every independent claim). *See* POPR, 35. But PO’s argument relies on an alternate definition of “planogram” inconsistent with the express definition in the ’709 patent. *See id.*, 35-38. Using the definition of “planogram” in the patent, consistent with the plain meaning of that language (*see* Ex. 1009, ¶¶ 16, 46), the Petition fully addresses those limitations; the Board should reject PO’s attempt to depart from the intrinsic record.

PO’s argument boils down to a claim that Wu’s “label content table” cannot be the claimed “planogram” and Wu’s “label location information” cannot be the claimed “location[] in the planogram.” POPR, 35-37. But this argument flies in the face of the ’709 patent specification. Claim terms are generally given “[their]

meaning to the ordinary artisan after reading the entire patent.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1321 (Fed. Cir. 2005) (*en banc*). “[T]he specification is always highly relevant to the claim construction analysis” and is “the single best guide to the meaning of a [disputed] term.” *Id.* at 1320 (cleaned up). The ’709 patent specification defines planogram: “[a] planogram is a set of association data among articles of a retail area and locations of said retail area.” Ex. 1001, 2:6-7. The claims also include that definition. *See, e.g., id.*, 10:13-15 (“the planogram comprises association data between articles of the retail area and locations of the retail area”). FIG. 5C of Wu, included in the POPR, shows that Wu’s label location table fits that definition – comprising association data between products and locations.

Trying to avoid this hard fact, PO argues that Wu’s label location information is not a “particular physical location” because it identifies a “relative” location. POPR, 36-37. But the words “particular” and “physical” don’t appear in the definition of “planogram” and are never used to modify the term “location” in the specification. (*See* Ex. 1001, *passim*.) Further, the ’709 patent presents a method to record locations in a planogram which includes “relative” location information, noting “a first coordinate can designate the shelf of a retail area, while a second can designate a section of the shelf, a third the level of the shelf, and a fourth *the order of the location on this shelf.*” ’709 Patent at 8:44-47 (emphasis added). These coordinates identify a “relative” location in exactly the same sense as the label

location information in Wu’s label content table. *See* Ex. 1009, ¶¶51, 54, 63-64.

Finally, Wu’s label location information does satisfy PO’s imported requirements because it identifies a “particular physical location.” Wu uses both a shelf code and a location code (such as “S01_R1”) to record label location information. *See* Ex. 1003 at 3:23-28, FIG. 5C. With “S01” identifying a shelf and “R1” being “the order of the location on this shelf,” this location information is just as “particular” as the coordinates described in the ‘709 Patent. *See* ’709 Patent at 8:44-47. Moreover, using the distances between labels and label dimensions, this information can be readily converted to a precise physical location. *See* Ex. 1009 at 273-274. Further, should the Board determine that a “planogram” requires such distances and dimensions, the Petition explains in Ground 3 how combining Wu, Itou, and Auclair renders recording such information obvious. *See* Pet., 72-83; Ex. 1009, ¶¶243-275.

Thus, Wu teaches the claimed “planogram” and limitations [1.i] and [1.o].

IV. Conclusion

For the foregoing reasons, the Board should institute *inter partes* review.

Date: March 18, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on this 18th day of March, 2024, **Petitioners' Preliminary Reply to Patent Owner's Preliminary Response** was served by email on the following counsel for Patent Owner:

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