

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

SES-IMAGOTAG INC.,
Patent Owner.

IPR2024-00190
Patent 10,674,340 B2

Before JAMES P. CALVE, BRIAN J. McNAMARA, and
TERRENCE W. McMILLIN, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

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

I. INTRODUCTION

Hanshow America Inc. and Hanshow Technology Co., Ltd (collectively, “Petitioner”) filed a petition, Paper 3 (“Petition” or “Pet.”), to institute an *inter partes* review (“IPR”) of claims 1–9 (the “challenged claims”) of U.S. Patent No. 10,674,340 B2 (“the ’340 patent”). 35 U.S.C. § 311. Petitioner also filed a Ranking and Explanation of Material Differences Between Petitions concerning a petition Petitioner filed in IPR2024-00189. Paper 2 (“Ranking”). SES-Imagotag SA (“Patent Owner”) filed a Preliminary Response, Paper 9 (“Prelim. Resp.”), contending that the Petition should be denied as to all challenged claims. We have jurisdiction under 35 U.S.C. § 6, which provides that an *inter partes* review may not be instituted unless the information presented in the Petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

A decision to institute under § 314 may not institute on fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). In addition, per Board practice, if the Board institutes trial, it will institute “on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” *See* 37 C.F.R. § 42.108(a).

Having considered the arguments and the associated evidence presented in the Petition and the Preliminary Response, for the reasons described below, we decline to institute *inter partes* review.

II. REAL PARTIES IN INTEREST

The Petition identifies Hanshow America Inc. (“Hanshow America”) and Hanshow Technology Co., Ltd. (“Hanshow Technology”) as real parties-in-interest. Pet. 1. Patent Owner identifies SES-Imagotag SA and SES-Imagotag Inc. as its real parties-in-interest. Paper 5, 2.

III. RELATED MATTERS

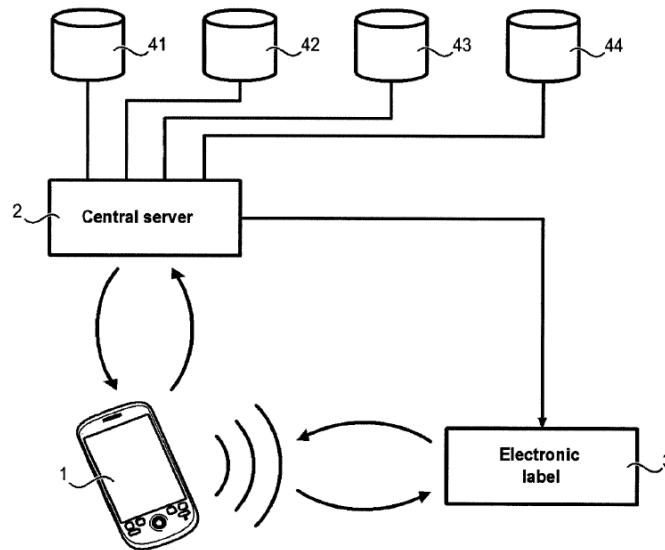
Petitioner and Patent Owner state that the '340 patent is asserted in the following litigation: *SES-Imagotag SA et al. v. Hanshow America Inc. et al.*, Case No. 1:23-cv-01667-BMC (E.D.N.Y.), filed March 3, 2023. Pet. 1; Paper 5, 2.

Patent Owner also identifies *Hanshow America Inc. et al. v. SES-Imagotag SA*, IPR2024-00189, filed November 14, 2023. Paper 5, 2.

IV. THE '340 PATENT

The '340 patent concerns systems and methods that communicate data representing spatially localized information in a sales area. Ex. 1001, 3:59–62. An overview of the system is shown in Figure 1, reproduced below.

FIG. 1



Ex. 1001, Fig. 1. In Figure 1, mobile terminal 1, e.g., a user's mobile telephone, wirelessly communicates with central server 2 and electronic label 3. *Id.* at 4:1–24. Electronic label 3 has a unique identifier, allowing unambiguous identification of each single unique label within a sales area. *Id.* at 4:25–28. Electronic label 3 communicates with mobile device 1

through radio-frequency peripheral 36, antenna 38, and electronic chip 37 using near-field communication (NFC) or radio-frequency identification (RFID). *See id.* at 4:25–53; Fig 3. Electronic label 3 includes RF communication module 32 and memory 33 to receive and store information to be displayed on screen 31, e.g., the price of items associated with the label at a particular location. *Id.* at 4:29–45. Central server 2 communicates with user information databases, e.g., databases 41 and 44 that store a user's previous shopping lists or user supplied health data, and databases relating to the sales area, e.g., databases 42 and 43 that store a planogram and other item related information. *Id.* at 7:4–18.

The '340 patent states that, because 10% of the items in a store may be present at several locations, an identifier such as a barcode or Electronic Product Code (EPC) does not allow determining the precise location of mobile terminal 1. *Id.* at 6:38–42. A planogram lists the locations of all the electronic labels and the items in the sales area. *Id.* at 6:35–37. Each location is defined by a vertical and horizontal position within a plane perpendicular to a floor of a predetermined area. *Id.* (code 57). The uniqueness of the label identifier and the location associated with each electronic label 3 allows unambiguous determination of the location of electronic label 3 from its identifier, making it possible to determine the location of mobile terminal 1. *Id.* at 6:43–47.

When a user brings a mobile terminal within range of an RF peripheral 36, electronic label 3 communicates the corresponding label identifier to the mobile terminal. Ex. 1001, 6:1–18. Mobile terminal 1 communicates the label identifier to central server 2. *Id.* at 6:19–28. Central server 2 determines the location of mobile terminal 1 from the unique label identifier using stored planogram data that associates the label with the

identifier. *Id.* at 6:29–37, 6:43–47. Knowing the location of the user’s mobile device, the user’s past purchase history, and the spatially localized information, the system can guide the user to specific items. *Id.* at 7:40–59. The method facilitates guiding the user to an item’s placement; for example, by identifying the height of the shelf where the sought-after item is located or by displaying an arrow indicating the direction the user should look toward to find the item (e.g., the top/right diagonal direction).

V. ILLUSTRATIVE CLAIM

Claim 1, reproduced below with paragraph designators used in the Petition, is illustrative of the subject matter of the ’340 patent:

1[pre]. A method for communicating spatially localized information to a mobile terminal, the method being performed by a central server configured to access a planogram associating a plurality of unique identifiers of radio-frequency peripherals with a plurality of locations within a predetermined area, each of the plurality of locations being defined by a vertical and horizontal position within a plane perpendicular to a floor of the predetermined area, and each of the plurality of locations being associated one-to-one with a corresponding unique identifier, the method comprising:

1[a] receiving a communication from a mobile terminal, the communication comprising a unique identifier received by the mobile terminal from a radio-frequency peripheral located in the predetermined area, the unique identifier being particular to the radio-frequency peripheral, wherein the radio-frequency peripheral includes an antenna and an electronic chip configured for near-field communication, and is configured to be activated by the mobile terminal when the radio-frequency communication peripheral is within a communication range of the mobile terminal, wherein the communication range is less than twenty centimeters;

1[b] determining a location of the mobile terminal within the predetermined area based on the location associated with the unique identifier of the received communication in the

planogram, the location of the mobile terminal comprising the vertical and horizontal position of said location; and
1[c] transmitting to the mobile terminal spatially localized information associated with the location of the mobile terminal.

VI. ASSERTED GROUNDS

The Petition asserts claims 1–9 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)
1–5, 8	103 ¹	Siotia, ² Sakata ³
6–7, 9	103	Siotia, Sakata, Akao ⁴
8–9	103	Siotia, Sakata, Akao, Chen ⁵
1–3, 5, 8	103	Ghosh, ⁶ Sakata
6–7, 9	103	Ghosh, Sakata, Akao
8–9	103	Ghosh, Sakata, Akao, Chen

Petitioner cites that Declaration of Dr. Manos M. Tentzeris (“Tentzeris Decl.”) (Ex. 1011) as evidence supporting its challenges to the claims of the ’340 patent.

VII. MULTIPLE PETITIONS AND DISCRETIONARY DENIAL

On the same day, Petitioner filed two petitions citing different references against the challenged claims. Ranking 2. Petitioner’s chart

¹ See The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102, 103, and 112. Because the priority application of the ’340 patent was filed before March 16, 2013 (the effective date of the relevant amendments), the pre-AIA versions of §§ 102, 103, and 112 apply.

² U.S. Patent Application Publication No. 2010/0070365A1 (Ex. 1003)

³ Certified translation of Japan Patent Application Publication No. 2007-155383A (Ex. 1008)

⁴ Certified translation of Japan Patent Application Publication No. 2009-064316A (Ex. 1004)

⁵ U.S. Patent No. 7,283,036B2 (Ex. 1006)

⁶ U.S. Patent Application Publication No. 2012/0095805A1 (Ex. 1007)

showing the ground of each petition and Petitioner's its ranking of petitions is reproduced below.

Rank	Petition	Grounds/References
1	IPR2024-00189 (the -189 IPR)	Ground 1 (§ 103): Cl. 1–9 (Fujiwara ⁷) Ground 2 (§ 103): Cl. 1–9 (Fujiwara/Arntzen ⁸) Ground 3 (§ 103): Cl. 1–5, 8–9 (Bandy ⁹ /Fowler ¹⁰) Ground 4 (§ 103): Cl. 1–5, 8–9 (Bandy/Fowler/Arntzen)
2	IPR2024-00190 (the -190 IPR)	Ground 1 (§ 103): Cl. 1–5, 8 (Siotia, Sakata) Ground 2 (§ 103): Cl. 6–7, 9 (Siotia, Sakata, Akao) Ground 3 (§ 103): Cl. 8–9 (Siotia, Sakata, Akao, Chen) Ground 4 (§ 103): Cl. 1–3, 5, 8 (Ghosh, Sakata) Ground 5 (§ 103): Cl. 6–7, 9 (Ghosh, Sakata, Akao) Ground 6 (§ 103): Cl. 8–9 (Ghosh, Sakata, Akao, Chen)

Id. We instituted trial in the first-ranked -189 IPR. Petitioner argues that we should institute trial in the second-ranked -190 IPR because the petitions are materially different. We address Petitioner's arguments below.

⁷ Japan Patent Application Publication No. 2008-77131A, publ. Apr. 3, 2008 (-189 IPR Ex. 1004); certified translation (-189 IPR Ex. 1003)

⁸ International Patent Application Publication No. WO 2010/082835A1, publ. Jul. 22, 2010 (-189 IPR Ex. 1005)

⁹ U.S. Patent Application Publication No. 2007/024436A1, publ. Feb. 1, 2007 (-189 IPR Ex. 1006)

¹⁰ U.S. Patent Application Publication No. 2008/0231228A1, publ. Sep. 25, 2008 (-189 IPR Ex. 1007)

First, Petitioner states that, because the '340 patent is pre-AIA, there may be a dispute about the priority date for pre-AIA §102(a) and §102(e) purposes. *Id.* at 2–3. Noting that the -189 IPR uses exclusively pre-AIA §102(b) prior art references, Petitioner states the petition in the -189 IPR is materially different from that of the -190 IPR, where there is potential priority dispute concerning the Ghosh reference. *Id.* at 3–4 (citing *Xilinx, Inc. v. Analog Devices, Inc.*, IPR2020-01484, Paper 11 at 9 (PTAB Mar. 15, 2021) for the proposition that two petitions are justified when there is a potential for the Patent Owner to challenge the prior art status of certain reference).

Patent Owner argues that the present circumstances are distinguished over *Xilinx* because Petitioner ranks as its first preference the -189 IPR, where there is no possibility of Patent Owner challenging the prior art status of the references. Prelim. Resp. 6–9. Noting that the potentially disputed reference, Ghosh, is in Petitioner's second-ranked petition (the -190 IPR), Patent Owner argues that this case is different from *Xilinx* because, in that case, if the patent owner successfully defeated the prior art status of a primary reference in the first IPR, there would be no remaining challenge in the absence of a second petition. *Id.* at 6–7. Patent Owner cites *Dexcom, Inc. v. Abbott Diabetes Care, Inc.*, IPR2023-01252, Paper 9 at 10–14 (PTAB Feb. 5, 2024) and *Apple Inc. v. Seven Networks, LLC*, IPR2020-00281, Paper 10 at 8 (PTAB Aug. 14, 2020) as presenting a more analogous circumstance, where the Board found a priority dispute in a second-ranked petition does not justify multiple petitions.

Although a potential priority dispute in a lower-ranked petition that is not present in a higher-ranked petition weighs against instituting on the lower-ranked petition, the mere existence of the potential dispute in the

lower-ranked petition alone need not be determinative. We consider other circumstances of this case. Petitioner presents other challenges in the -190 IPR that address all the challenged claims, but do not rely on Ghosh (Grounds 1–3 challenge claims 1–9 based on combinations of Siotia, Sakata, Akao, and Chen; Grounds 4–6 challenge claims 1–3 and 5–9 (claim 4 is not challenged) based on various combinations of Ghosh, Sakata, Akao, and Chen). Thus, even if Patent Owner removed Ghosh as prior art, Petitioner’s other challenges to all the claims that are challenged on multiple grounds in the -189 IPR would remain, with Siotia replacing Ghosh in the -190 IPR. As discussed further below, Petitioner’s ranking does not explain sufficiently why the Siotia-based challenges remaining in the -190 IPR are not cumulative to the Fujiwara based challenges and the Bandy/Fowler based challenges articulated in the -189 IPR.

The above analysis leads us to Petitioner’s second argument, i.e., that because one of the Fujiwara based grounds in the -189 IPR is a single reference obviousness ground, while all the other grounds rely on combinations of references, the -189 IPR has a different starting point and a different rationale from that of the -190 IPR as to why the claims are obvious. Ranking 2. Patent Owner notes that the -189 IPR petition includes 4 grounds and the -190 IPR petition includes 6 grounds. Prelim. Resp. 9. We also note that, of the 4 grounds asserted in the -189 IPR, only one is a single reference ground. *See* -189 IPR, Paper 2 (Petition). According to Patent Owner, Petitioner is attempting to hedge its bets and fails to establish this as a rare case where multiple petitions are warranted. Prelim. Resp. 9.

Petitioner’s assertion that the -189 IPR and -190 IPR petitions have different starting points and are materially different is conclusory and unsupported by substantive analysis. Even if Patent Owner succeeds in

removing Ghosh as a primary reference in the three Ghosh based grounds of the -190 IPR, which do not challenge claim 4, three grounds remain with Siotia as the primary reference challenging claims 1–9. As a single reference challenge, in the -189 IPR, Petitioner cites Fujiwara as teaching all the features in claim 1, including the claimed planogram, central server, and uniquely identified RFID tags. *See* -189 IPR, Paper 2 at 16–39. In the -190 IPR’s Siotia based grounds, Petitioner cites Siotia as disclosing a store planogram that indicates the location of a store item, a store server that may be configured to access the planogram and store items that may have RFIDs as teaching the claimed radio frequency peripherals. Pet. 15–16. Petitioner cites Sakata as disclosing each RFID tag has a unique ID and tables that are structurally analogous to Siotia’s planogram. Pet. 16–17 (citing Ex. 1003 ¶¶ 23, 39, 41; Ex. 1008 ¶¶ 12, 16; Ex. 1011 Tentzeris Decl. ¶¶ 67–68). The mere fact that one of the challenge grounds in the -189 IPR is based on a single reference (Fujiwara), without further explanation, does not explain why the -189 IPR and -190 IPR are materially different, as both IPRs assert prior art that teaches similar subject matter.

Third, Petitioner contends that it is not possible to present all grounds in one petition because the claims of the ’340 patent recite unrelated features and are verbose, containing 777 words, with claim 1 by itself containing 229 words. Ranking 4–5. We disagree. This is not a case where different sets of claims are challenged in the IPRs because of differing subject matter. The -189 IPR and -190 IPR each challenge the same set of claims, i.e., all 9 claims of the ’340 patent. We agree with Patent Owner that the claims of the ’340 patent are not particularly complex or lengthy. Prelim. Resp. 4–5.

Having instituted trial in the -189 IPR and considered all the arguments and evidence of record presented in this proceeding, we exercise our discretion and decline to institute trial in the -190 IPR.

VIII. ORDER

For the reasons discussed above, it is
ORDERED that the Petition is DENIED.

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