

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

BROADPHONE LLC.,
Patent Owner.

Case IPR2024-00821
Patent 8,594,698 B2

Before KARL D. EASTHOM, SCOTT A. DANIELS, and LISA L. TSANG,
Administrative Patent Judges.

DANIELS, *Administrative Patent Judge.*

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

I. INTRODUCTION

Samsung Electronics Co., Ltd. (“Petitioner”) filed a Petition (Paper 1 (“Pet.”)), seeking *inter partes* review of claim 23 of U.S. Patent No. 8,594,698 B2 (Ex. 1001 (“the ’698 patent”)). Pet. 1. On May 15, 2024, Petitioner and Broadphone LLC, (“Patent Owner”), submitted a joint email (Ex. 2001) indicating that Patent Owner intended to waive its right to enter a Patent Owner Preliminary Response. Ex. 2001. Together, the parties requested “that the Board expedite consideration of the petition in IPR2024-00821 and consolidate IPR2024-00821 with IPR2024-00154.” *Id.*

By way of background, we instituted trial on May 7, 2024 in IPR2024-00154 (“the ’154 IPR”), which challenges claims 1–7, 9–13, 15–16, and 21 of the ’698 patent. *Samsung Electronics Co., Ltd. v. Broadphone LLC*, IPR2024-00154, Paper 12 at 2 (PTAB May 7, 2024) (Institution Decision). The parties’ joint email explains that “claim 23 [of the ’698 patent] . . . was recently added to the co-pending district court litigation.” Ex. 2001. In light of this development, the parties stated that “Petitioner and Patent Owner agree that IPR2024-00821 raises the same or substantially the same issues as IPR2024-00154, and as a result stipulated in district court that ‘[Petitioner] and [Patent Owner] desire . . . to treat Claim 23 of the ’698 patent as though it had in fact been included in [IPR2024-00154].’” Ex. 1003.

Patent Owner subsequently entered a Waiver of Patent Owner’s Preliminary Response (Paper 6 (“Waiver”)). Waiver 1, *see* Paper 5 (Notice of Filing Date Accorded); *see also* Ex. 2001.

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” In light of

the Waiver, and upon consideration of the arguments and evidence presented by Petitioner and Patent Owner in this proceeding, as well as in the '154 IPR, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing the unpatentability of the challenged claim. *See* 35 U.S.C. § 314(a). Accordingly, we institute an *inter partes* review of the challenged claims in this proceeding.

A. Real Parties in Interest

Petitioner states that Samsung Electronics Co., Ltd., is the real party in interest. Pet. 1. Patent Owner states that “Broadphone LLC (exclusive licensee of U.S. Pat. No. [8,594,698])” is the sole real party in interest. Paper 3, 1.

B. Related Matters

The parties identify that the '698 patent is involved in *Broadphone LLC v. Samsung Elecs. Co., Ltd.*, No. 2:23-cv-00001 (E.D. Tex. 2023). Pet. 1; Paper 3, 1.

Petitioner also identifies U.S. Patent Nos. 8,179,583 and 10,341,811 involved in the district court litigation and at issue in additional proceedings before the Board, namely, IPR2024-00153 (U.S. Patent No. 8,179,583 B2) and IPR2024-00155 (U.S. Patent No. 10,341,811 B2). Pet. 1. Petitioner explains that certain claims in the '698 patent are also challenged in IPR2024-00154, currently before the Board. *Id.*

Petitioner also informs us that “[t]he '698 patent was also the subject of an ex parte reexamination ('EPR') (Control No. 90/019,209), filed by third party Unified Patents, LLC ('Unified')." *Id.*

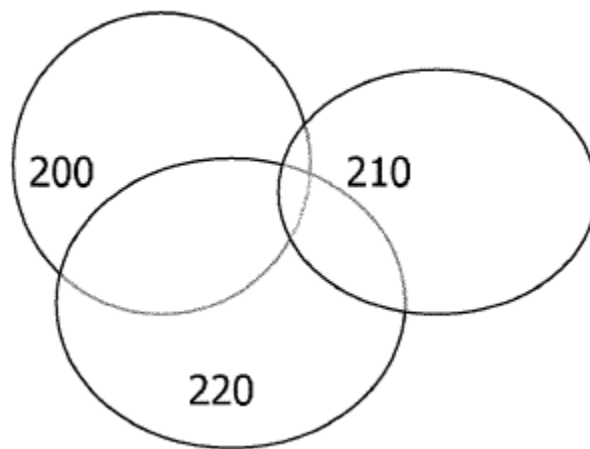
C. The '698 Patent (Ex. 1001)

The '698 patent is titled “Signal Comparison-Based Location Determining Method” and discloses a technique for monitoring and

determining a location of a mobile telecommunications device using signal strength measurements from multiple antenna stations, i.e., cells.¹ Ex. 1001, codes (54), (57), 6:18–32, 7:10–26. According to the '698 patent, there were problems with providing highly accurate and simply calculated location data for mobile devices, especially in locations having poor signal reception or multiple floor levels, and maintaining user privacy with respect to location data.² *Id.* at 1:39–49, 5:25–40.

To solve these problems, the '698 patent discloses causing the mobile device to compare measured signal strengths from a current location with recorded, i.e., stored, signal strengths from a desired, or selected, location to determine whether the mobile device's current location is also the desired location. *Id.* at 7:10–26.

Figure 2, below, shows “a schematic view of an antenna space reception map.” Ex. 1001, 10:43–44.



¹ The '698 patent refers alternatively to mobile phone network antenna towers as both “antenna stations” and “cells.” *Compare, e.g.*, Ex. 1001, 16:17–19 *with id.* at 14:41–44.

² The '698 patent refers to “a mobile telephone, or [] a mobile communications device” as both a “mobile” and “portable” device as well as a “cell phone.” Ex. 1001, 1:26–28, 62–63, 2:60, 5:65–66.

Figure 2 illustrates overlapping coverage areas for three antenna stations 200, 210, 220, resembling a Venn diagram. *Id.* at Fig. 2, 8:25–33. The '698 patent explains that, for a given building or cell phone within the coverage areas shown in Figure 2,

there is a 40% probability of a building [or cell phone] being in the coverage area of a single service antenna, a 40% probability of a building [or cell phone] being in the overlapping coverage area of two service antennas, and a 20% probability of a building [or cell phone] being in the overlapping coverage area of three service antennas.

Id. at 8:28–33. To determine its location, the cell phone obtains “distance equivalent measurement(s) between itself . . . and each of the area service antenna(s).” *Id.* at 8:33–36. In one embodiment, at a selected location, the cell phone measures *and stores* at least two signal strength measurements from nearby antenna stations. *Id.* at 6:23–28. In this embodiment, the cell phone is then able to monitor its location “by causing the [mobile] device to measure reception signal strength associated with local fixed-location service-area antenna stations signals, and to electronically compare these measurements with the stored at least two measurements.” *Id.* at 6:29–32.

In a further embodiment, the '698 patent discloses that a user may select an action to occur each time they are at, or within a particular range of, the desired location. Ex. 1001, 18:17–24. For example, a user might “receive discount coupons from mall stores every time the user enters the shopping mall next to his home (the shopping mall is a desired location).” *Id.* at 18:13–16.

D. Illustrative Claim

Claim 23 is independent. Claim 23 illustrates the claimed subject matter and is reproduced below:

1. A portable RF communications device comprising an antenna, a user interface, and a storage device, wherein the storage device contains computer program code that, when executed by the portable device, controls the portable device to cause the portable device to perform a location-determining method, the method comprising:

(a) monitoring the location of the portable device by

(i) receiving with the antenna communications signals from a first plurality of fixed-location service-area antenna stations capable of RF communication with the portable device wherein the antenna stations are substantially continuously operating,

(ii) identifying at least one ID within at least one of the received communications signals, and

(iii) measuring a varying signal characteristic other than ID, which signal characteristic is associated with a received communications signal from each of the first plurality of antenna stations; and

(b) determining if a first monitored location, monitored in accordance with part (a), is within proximity of a location entered by a user of the portable device on the user interface, as a result of electronically comparing

(i) the at least one ID at the first monitored location with at least one ID at the location chosen by the user; and

(ii) at least one number based on the varying signal characteristic of the communications signals from each of the first plurality of antenna stations at the first monitored location with at least one number based on corresponding varying signal characteristics of the communications signals from each of the first plurality of antenna stations at the first monitored location with at least one number based on corresponding varying signal characteristics of the communications signals from each of the first plurality of antenna stations at the location chosen by the user.

Ex. 1001, 27:34–63.

E. Prior Art and Asserted Grounds

Petitioner asserts that claim 23 of the '698 patent would have been unpatentable based on the following ground:³

Ground	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	23	103(a) ⁴	Spain-I, ⁵ Hunzinger, ⁶ Nanda ⁷

II. ANALYSIS

In the '154 IPR we instituted trial after determining that Petitioner has shown “a reasonable likelihood of prevailing on its challenges that Spain-I, Hunzinger, and Nanda renders obvious at least claims 1–7, 97–13, 15, 16, and 21 of the '698 patent.” *Samsung*, Paper 12 at 30.

Independent method claims 1 and 23 in the '698 patent are, although not identical, substantively the same. For example, the preamble of independent claim 23, like claim 1, recites a method claim drawn to a “portable device to perform a location-determining method.” Ex. 1001, 27:38–39, *see id.* at 26:5–6 (claim 1 reciting “[a] location-determining method, operable by a first portable RF communications device.”). Indeed, with only a few minor differences in wording, limitations 23(a)(i)-(iii) as

³ Petitioner supports its challenge with the Declaration of Kevin C. Almeroth, Ph.D. Ex. 1036. Patent Owner has not submitted declaration testimony at this stage.

⁴ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284, 287–288 (2011), amended 35 U.S.C. §§ 102, 103, and 112. Because the '698 patent claims priority to an application filed before March 16, 2013 (the effective date of the relevant amendments), the pre-AIA version of § 103 applies. *See* Ex. 1001, code (63).

⁵ U.S. Patent No. 6,944,465 B2, issued September 13, 2005 (Ex. 1011).

⁶ U.S. Patent No. 6,957,076 B2, issued October 18, 2005 (Ex. 1054).

⁷ U.S. Patent No. 8,477,731 B2, issued July 2, 2013 (Ex. 1006).

well as limitations 23(b)(i)-(ii) are numerically consistent and essentially the same as limitations 1(a)(i)-(iii) and 1(b)(i)-(ii). *Compare, e.g.*, Ex. 1001, 26:13–14 (claim 1 reciting “(ii) identifying at least one ID within at least one of the received communications signals”), *with id.* at 27:45–47 (claim 23 reciting “(ii) identifying at least one ID within at least one of the received communications signals”).

In light of our Decision in the ’154 IPR, the similarity of independent claims 1 and 23 and considering again *Spain-I*, *Hunzinger*, and *Nanda*, along with Petitioner’s arguments and evidence in this proceeding, which are basically the same as in the ’154 IPR, we are persuaded to also institute trial as to claim 23 in this proceeding. *Compare, Samsung*, Paper 12, 12–19, *with Pet.* 6–46. As discussed above, in this proceeding Patent Owner has affirmatively waived its right to file a Patent Owner Preliminary Response. Paper 6. The parties have also requested “that the Board expedite consideration of the petition in IPR2024-00821 and consolidate IPR2024-00821 with IPR2024-00154.” Ex. 2001. Considering these facts and the parties requests, as well as the record at this stage of the proceeding, including all the arguments and evidence set forth in the Petition and the sole challenge to claim 23 based on *Spain-I*, *Hunzinger*, and *Nanda*, we find Petitioner has shown a reasonable likelihood of prevailing at trial. Pet. 6–46.

Accordingly, for the same reasons we instituted trial in the ’154 IPR, including our analysis of independent claim 1, the relevant portions of which we incorporate by reference as they pertain to the same and similar limitations in independent claim 23, we also institute trial in this proceeding as to independent claim 23.

III. CONCLUSION

On this record, we are persuaded that Petitioner demonstrates a reasonable likelihood of prevailing on its challenge that Spain-I, Hunzinger, and Nanda renders obvious claim 23 of the '698 patent. We therefore institute trial on all claims and all challenges included in the Petition.

Our factual findings and determinations at this stage of the proceeding are preliminary, and based on the evidentiary record developed thus far. This is not a final decision as to the patentability of claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review of the '698 patent is hereby instituted as to claim 23 on the sole ground set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial on the grounds of unpatentability authorized above; the trial commences on the entry date of this decision.

IPR2024-00821
Patent 8,594,698 B2

FOR PETITIONER:

Joseph E. Palys
Naveen Modi
Kevin M. Stewart
Daniel Zeilberger
PAUL HASTINGS LLP
josephpalys@paulhastings.com
naveenmodi@paulhastings.com
kevinstewart@paulhastings.com
danielzeilberger@paulhastings.com
PH-Samsung-Broadphone-PR@paulhastings.com

PATENT OWNER:

Reza Mirzaie
Peter Tong
RUSS AUGUST & KABAT
rmirzaie@raklaw.com
ptong@raklaw.com;
broadphone@raklaw.com