

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

UNILOC 2017 LLC,
Patent Owner.

IPR2020-00046
Patent 6,980,522 B2

Before KRISTEN L. DROESCH, DAVID C. McKONE, and
SHEILA F. McSHANE, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

Samsung Electronics America, Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–5 and 9 (“challenged claims”) of U.S. Patent No. 6,980,522 B2 (Ex. 1001, “’522 Patent”). Paper 1 (“Pet”). Petitioner filed a Declaration of Dr. Zygmunt J. Haas (Ex. 1002) with its Petition. A preliminary response was not filed.

We have authority to decide whether to institute review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4. After considering the Petition, for the reasons provided below, we do not institute *inter partes* review.

B. Related Matters

Petitioner indicates the ’522 Patent has been the subject of litigation in several cases. *See* Pet. 1–2. The parties indicate the only litigation that remains pending are *Cisco Systems, Inc. v. Uniloc USA Inc.*, Civil Action No. 3:18-cv-04991 (N.D. Cal. Aug. 15, 2018), and *Uniloc 2017 LLC v. Google LLC*, Civil Action No. 2:18-cv-00498 (E.D. Tex. Nov. 17, 2018). *See* Pet. 1–2; Paper 4, 2. The parties also indicate that claims of the ’522 Patent distinct from those challenged in this proceeding are the subject of a petition filed by Petitioner in IPR2020-00045. *See* Pet. 1–2; Paper 4, 2.

C. The ’522 Patent (Ex. 1001)

The ’522 Patent relates to a plurality of stations capable of forming an ad-hoc radio communications network, for example, a network using Bluetooth. *See* Ex. 1001, 1:4–6. A station includes an antenna for transmitting and receiving radio signals on a communication channel, and a digital controller unit comprising a link baseband controller, a

microprocessor, and an interface unit. *See id.* at 2:42–48, Fig. 2. The interface unit comprises hardware and software for interfacing the station to a host device. *See id.* at 2:57–59.

To overcome a problem encountered in an ad-hoc network when a station having an inefficient antenna operates as a master, the '522 Patent discloses ranking each station in terms of its antenna performance, with the station having the best antenna ranking becoming the master. *See Ex. 1001, 2:63–3:14.* “The antenna ranking can be determined under static conditions, or it may be adjusted dynamically depending on the local environment of a station [], for example based on measured [voltage standing wave ratio (VSWR)] or some other signal quality measure.” *Id.* at 3:15–18. Other factors may be taken into account in the ranking instead of, or in addition to, antenna performance. *Id.* at 4:34–37. For example, a station having access to electricity instead of a battery would be suitable as a master due to the extra power requirements for the master role. *See id.* at 4:38–42. A station capable of antenna diversity would be given a high ranking because of its advantages. *See id.* at 3:18–20.

The stations in an ad-hoc network may determine their antenna rankings relative to one another to choose the optimum master station. *See Ex. 1001, 3:20–23.* To compare rankings, the master station requests each of the other stations to provide their rankings using standard Bluetooth communication protocols. *See id.* at 3:25–28. If the master station determines that its ranking is lower than one of the slave stations, the master station hands over its master role to that station using Bluetooth standard methods. *See id.* at 3:28–32, 3:67–4:3. Because of the nature of an ad-hoc network, handover of the master function from one station to another needs

to be possible as new stations join the network. *See id.* at 3:32–35, 3:57–4:3, Fig. 3. It is also desirable to enable handoff of the master function to mitigate effects of position dependent fading. *See id.* at 3:35–37.

D. Illustrative Claim

Claims 1 and 3 are independent. Claim 2 depends from claim 1, and claims 4, 5, and 9 depend from claim 3. Claim 1 is illustrative and reproduced below:

1. An ad-hoc radio communication system comprising a plurality of stations formed into at least one network, wherein at least one station including transceiver means coupled to antenna means for communication with other stations, control means for enabling master or slave functionality in the station and ranking means for determining a rank representative of the station's suitability for acting as master in the network using performance characteristics of the antenna means in view of its local environment, wherein at least one of the stations has comparison means for determining the rank of all the stations in the network and master transfer means for enabling the station having the highest rank to take the role of master in the network.

E. Asserted Grounds of Unpatentability and Asserted Prior Art

Petitioner challenges claims 1–5 and 9 as follows:

Claim(s) Challenged	35 U.S.C. §	Reference(s)
1–4, 9	102	Hulyalkar ¹
1–4, 9	103	Hulyalkar, Rothwell ²
5	103	Hulyalkar, Sugaya ³
5	103	Hulyalkar, Rothwell, Sugaya

¹ Ex. 1005, US Patent No. 6,751,196 B1, issued June 15, 2004 (“Hulyalkar”).

² Ex. 1006, US Patent No. 6,175,723 B1, issued Jan. 16, 2001 (“Rothwell”).

³ Ex. 1007, US Patent No. 6,804,209 B1, issued Oct. 12, 2004 (“Sugaya”).

II. ANALYSIS

For petitions filed after November 13, 2018, the Board applies the same claim construction standard as that applied in federal courts. *See* 37 C.F.R. § 42.100(b) (2019). The claim construction standard used in a civil action under 35 U.S.C. § 282(b) is generally referred to as the *Phillips* standard. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Under the *Phillips* standard, words of a claim generally are given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312.

Petitioner asserts that there are several means-plus-function limitations recited in the challenged claims, specifically “transceiver means for . . .,” “antenna means for . . .,” “control means for . . .,” “ranking means . . .,” “comparison means . . .,” “master transfer means . . .,” and “inquiry means . . .”. *See* Pet. 8–11. The use of the word “means” in a claim element creates a rebuttable presumption that 35 U.S.C. § 112 ¶ 6⁴ applies. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (en banc in relevant part). Accordingly, we presume that each of the aforementioned means-plus-function limitations recited in claims 1–5 and 9 should be construed to cover the corresponding structure described in the specification and equivalents thereof. *See* 35 U.S.C. § 112 ¶ 6.

⁴ Section 4(c) of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 296 (2011) redesignated 35 U.S.C. § 112, sixth paragraph as 35 U.S.C. § 112(f). Because the application from which the ’522 Patent issued was filed before September 16, 2012, the effective date of the relevant amendment, we refer to the pre-AIA version of § 112.

By rule, Petitioner is required to identify in its Petition the corresponding structure in the specification for means-plus-function terms. *See* 37 C.F.R. § 42.104(b)(3) (“Where the claim to be construed contains a means-plus-function . . . limitation . . . the construction of the claim *must* identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.”) (emphasis added). Petitioner provides a table listing each of the aforementioned means-plus-function limitations along with an identified corresponding function and, according to Petitioner, a corresponding assumed structure disclosed in the ’522 Patent Specification, “in the event the Board believes the specification does disclose sufficient corresponding structure based on the portions of the specification cited below.” *See* Pet. 9–11. Petitioner asserts that aside from the “transceiver means for . . .” and “antenna means for . . .,” each of the means-plus-function limitations recite functions that require special programming. *See id.* at 8. According to Petitioner, however, “the [S]pecification does not set forth an algorithm for performing these functions.” *Id.*

As to “ranking means for determining a rank representative of the station’s suitability for acting as master in the network using performance characteristics of the antenna means in view of its local environment,” recited in independent claims 1 and 3, Petitioner identifies a microprocessor forming part of a station as the corresponding structure disclosed in the ’522 Patent Specification. *See* Pet. 10 (citing Ex. 1001, Fig. 2 (210)). Petitioner’s additional citations to the ’522 Patent Specification merely describe the “ranking means” using language nearly identical to the limitations of claims 1 and 3. *See id.* (citing Ex. 1001, 1:35–37, 1:49–51).

“In cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, [the Federal Circuit] has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.” *Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). “A computer-implemented means-plus-function term is limited to the corresponding structure disclosed in the specification and equivalents thereof, and the corresponding structure is the algorithm.” *Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1253 (Fed. Cir. 2005) (quoted with approval in *Aristocrat*). “The algorithm may be expressed as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.” *Williamson*, 792 F.3d at 1352 (citing *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012)).

Although Petitioner asserts that aside from the “transceiver means for . . .” and “antenna means for . . . ,” the corresponding structure for each of the claimed means-plus-function limitations requires special programming (*see* Pet. 8), Petitioner does not direct us to disclosure of special programming or an algorithm in the ’522 Patent Specification (*see* Pet. 10). Therefore, with respect to at least the “ranking means for determining a rank representative of the station’s suitability for acting as master in the network using performance characteristics of the antenna means in view of its local environment,” recited in independent claims 1 and 3 and all other challenged claims, which depend therefrom, the Petition fails to comply with 37 C.F.R. § 42.104(b)(3).

The position Petitioner takes in the Petition with respect to the means-plus-function limitations is improper, because it, in effect, seeks an advisory

opinion from the Board as to whether the challenged claims are indefinite under 35 U.S.C. § 112(b). In particular, Petitioner argues that, under the correct construction, certain means-plus-function terms of the challenged claims are indefinite because the Specification does not recite adequate corresponding structure. *See* Pet. 8. Petitioner then invites us to either agree with its construction (i.e., corresponding structure requires special programming or an algorithm for performing the function) and declare the claims to be indefinite (and presumably deny institution on that basis), or to adopt constructions it expressly advocates against (i.e., corresponding structure is a microprocessor executing software that performs the identified function) and proceed with a trial using those allegedly incorrect constructions. *See id.* at 8–9.

We decline to take a position on whether the challenged claims are indefinite or whether Petitioner’s claim constructions are correct. The purpose of a decision on institution is to make a threshold determination whether Petitioner has shown a reasonable likelihood of success on the statutory grounds set forth in § 311(a) (§§ 102 and 103), not to issue advisory opinions on how we might have ruled if given additional statutory authority. 35 U.S.C. § 314(a). Petitioner argues that it

demonstrates how the prior art discloses these claim limitations if interpreted to cover the assumed corresponding structure, in the event the Board believes the specification does disclose sufficient corresponding structure based on the portions of the specification cited below, or in the event the Board does not believe these limitations invoke section 112(6), in which case these limitations are disclosed under their plain and ordinary meaning.

Pet. 9. However, Petitioner does not explain how we would apply the art under the construction it believes is correct (i.e., corresponding structure requires special programming or an algorithm for performing the function).

Specifically, Petitioner does not address or explain sufficiently how the combined teachings of Hulyalkar and Rothwell teach, suggest, or render obvious a structure that requires special programming or an algorithm for performing the function of “determining a rank representative of the station’s suitability for acting as master in the network using performance characteristics of the antenna means in view of its local environment.”

Instead, Petitioner argues, “[a]ssuming *a microprocessor executing software that performs the function claimed and described in the [’522 Patent Specification is sufficient structure under § 112, Hulyalkar alone or in view of Rothwell discloses the claimed ‘ranking means for determining a rank representative of the station’s suitability for acting as a master in the network.’*” *Id.* at 30 (emphasis added) (citing Ex. 1002 ¶¶ 81–125).

Petitioner offers additional proposed constructions for the claimed function (*see id.* at 11–17), and argues that certain disclosures of Hulyalkar and Rothwell teach, suggest, or render obvious the function of “determining a rank representative of the station’s suitability for acting as master in the network using performance characteristics of the antenna means in view of its local environment,” in accordance with Petitioner’s proposed constructions (*see id.* at 30–45). Petitioner concludes that “it is inherent that the above-described functionality for determining a rank is *software executed by a processor.*” *Id.* at 46 (emphasis added) (citing Ex. 1002 ¶ 124).

Thus, if we were to proceed now on allegedly incorrect “assumed” constructions (i.e., corresponding structure is a microprocessor executing software that performs the functions), but ultimately agree with Petitioner’s proposed constructions (i.e., corresponding structure requires special programming or an algorithm for performing the function), we would be put in the position of attempting to apply prior art to claims that might not be amenable to construction, and without Petitioner telling us how the art should be applied in that circumstance. In such an event, “the proper course for the Board to follow, if it cannot ascertain the scope of a claim with reasonable certainty for purposes of assessing patentability, is to decline to institute the IPR or, if the indefiniteness issue affects only certain claims, to conclude that it could not reach a decision on the merits with respect to whether petitioner had established the unpatentability of those claims under sections 102 or 103.” *Samsung Elecs. Am., Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1353 (Fed. Cir. 2020).

Institution of *inter partes* review is discretionary. *See Harmonic Inc. v. Avid Tech, Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). We exercise our discretion and decline Petitioner’s invitation to adopt allegedly incorrect claim constructions and institute an *inter partes* review on the basis of those constructions.

For the foregoing reason, we exercise our discretion to deny the Petition under 35 U.S.C. § 314(a).

III. ORDER

Accordingly, it is ORDERED that *inter partes* review of U.S. Patent No. 6,980,522 is not instituted based on this Petition.

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