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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIVE POWER INTELLIGENCE COMPANY NA, LLC,
Petitioner,

v.

GENSCAPE INTANGIBLE HOLDING, INC.,
Patent Owner.

IPR2019-00169
Patent 7,088,090 B2

Before ERICA A. FRANKLIN, JENNIFER MEYER CHAGNON, and WESLEY B. DERRICK, *Administrative Patent Judges*.

DERRICK, *Administrative Patent Judge*.

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

I. INTRODUCTION

Live Power Intelligence Company NA, LLC ("Petitioner") filed a Petition requesting an *inter partes* review of claims 1–3 of U.S. Patent No. 7,088,090 B2 ("the '090 patent," Ex. 1001). Paper 2 ("Pet."). Genscape Intangible Holding, Inc. ("Patent Owner") declined to file a Patent Owner Preliminary Response.

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). We may not institute an *inter partes* review "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Applying that standard, for the reasons set forth below, we decline to institute an *inter partes* review because Petitioner has not shown a reasonable likelihood that it would prevail in establishing the unpatentability of any challenged claim.

II. BACKGROUND

A. Real Parties in Interest

Petitioner Live Power Intelligence Company NA, LLC identifies Scottsdale Insurance Company as an additional real party in interest. Pet. 1. Patent Owner Genscape Intangible Holding, Inc. identifies itself as the real party in interest, and states that it is wholly owned by Genscape, Inc., which is wholly owned by DMGT US, Inc. Paper 3, 1–2.

B. Related Matters

Petitioner identifies a now-dismissed lawsuit as a related matter: *Genscape Intangible Holding, Inc. v. Live Power Intelligence Co. NA, LLC*, Case No. 1:17-cv-02452-PAB-SKC (D. Colo.). Pet. 1.

Petitioner also concurrently filed an additional petition for review of related U.S. Patent No. 6,714,000 B2—IPR2019-00189. IPR2019-00189, Paper 2.

C. The '090 Patent (Ex. 1001)

The '090 patent is titled "Apparatus and Method for Monitoring Power and Current Flow," and is directed to a system for remotely monitoring the magnitude and direction of net electrical power and current flow through monitored line(s). Ex. 1001, [54], Abstract.

D. Challenged Claims

Petitioner challenges claims 1–3 of the '090 patent, reproduced below.

1. A system for monitoring information relating to a transmission line of a power generation facility, comprising:

a central computing site; and

a monitor positioned at a location substantially remote to and at a predetermined distance from said transmission line, and without proximate access to said transmission line, said monitor including

a magnetic transducer for sensing a magnetic field associated with said transmission line,

an electric transducer for sensing an electric field associated with said transmission line,

a processor for receiving signals from the magnetic and electric transducers and generating data representative of the magnitude and relative phase of the respective magnetic and electric fields, and

a means for transmitting said data to the central computing site.

2. The system as recited in claim 1, wherein data received by said central computing site is processed to determine a net flow of current through said transmission line.

> 3. The system as recited in claim 2, wherein information relating to the net flow of current through said transmission line is communicated to one or more end users.

Ex. 1001, 79:2–80:11.

E. The Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–3 are unpatentable under 35 U.S.C. § 103 as follows (Pet. 4, 24–60):

Ground	Claims	References
1	1–2	Libove[1] in view of Blatt[2]
2	1–3	Libove in view of Fernandes[3] and IEEE Std 644-1994[4]

Petitioner supports the Petition with the testimony of Robert G. Olsen, Ph.D. (Ex. 1007).

III. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art for the '090 patent would have had "a Master's degree in electrical engineering or applied physics with a focus in power transmission, or a Bachelor's degree

[1] Libove & Singer, U.S. Patent No. 5,473,244, issued December 5, 1995 (Ex. 1003).
[2] Blatt, U.S. Patent No. 5,408,176, issued April 18, 1995 (Ex. 1004).
[3] Fernandes, U.S. Patent No. 4,709,339, issued November 24, 1987 (Ex. 1005).
[4] *IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields From AC Power Lines*, IEEE Std 644-1994 (Ex. 1006). On its face, IEEE Std 644-1994 states that it was "[a]pproved December 13, 1994," and "[p]ublished 1995." Ex. 1006, i.

in electrical engineering or applied physics, or a similar field, with approximately two years of experience relating to power transmission." Pet. 11. Petitioner further contends that "[a]dditional graduate education might substitute for experience" and that "significant experience in the field of power transmission might substitute for formal education." *Id.*

On this record, we adopt Petitioner's definition of the level of ordinary skill. We further note that the prior art itself demonstrates the level of skill in the art at the time of the invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that "specific findings on the level of skill in the art . . . [are not required] 'where the prior art itself reflects an appropriate level and a need for testimony is not shown'" (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985))).

B. Claim Construction

1. Standard of Construction

For petitions requesting an *inter partes* review filed before November 13, 2018, the Board interprets claim terms in an unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2018).[5] Nevertheless, "[a] party may request a district court-type claim construction approach to be applied if a party certifies that the involved

[5] The broadest reasonable construction standard applies to *inter partes* review petitions filed before November 13, 2018. 77 Fed. Reg. 48727 (Aug. 14, 2012) (codified at 37 C.F.R. § 42.100(b)), as amended at 81 Fed. Reg. 18766 (Apr. 1, 2016); *see also* 83 Fed. Reg. 51340 (Oct. 11, 2018) (changing the standard for interpreting claims in *inter partes* review petitions filed on or after November 13, 2018).

patent will expire within 18 months from the entry of the Notice of Filing Date Accorded to Petition." *Id.* In this proceeding, we deemed Petitioner's request set forth in the Petition sufficed for us to conditionally grant the request, which was perfected in the absence of opposition by Patent Owner within the specified time period for such. *See* Paper 6.

In applying a district court-type claim construction, we are guided by the principle that the words of a claim "are generally given their ordinary and customary meaning," as understood by a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (citation omitted). "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). There is a "heavy presumption," however, that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citation omitted).

We are also guided by the principle that we only construe claim terms if, and to the extent, it is necessary for the purpose of the proceeding, here, to determine whether to institute an *inter partes* review. *See, e.g.*, *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) ("[C]laim terms need only be construed 'to the extent necessary to resolve the controversy.'") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

2. Means-Plus-Function Limitations

Means-plus-function analysis under 35 U.S.C. § 112, sixth paragraph, may apply if the claim limitation "fails to 'recite[] sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (en banc) (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). With regard to the construction of means-plus-function limitations, the same analysis applies under both the broadest reasonable interpretation and district court standards. *IPCom GmbH & Co. v. HTC Corp.*, 861 F.3d 1362, 1369 (Fed. Cir. 2017) ("We 'h[e]ld that paragraph six applies regardless of the context in which the interpretation of means-plus-function language arises, i.e., whether as part of a patentability determination in the PTO or as part of a validity or infringement determination in a court.'" (quoting *In re Donaldson Co.*, 16 F.3d 1189, 1193 (Fed. Cir. 1994)). In construing a means-plus-function limitation, we are required by 35 U.S.C. § 112, sixth paragraph, "to perform a two-step analysis. First [we must] 'identif[y] the particular claimed function.' Second, [we must] 'look [] to the specification and identif[y] the corresponding structure, material, or acts that perform that function.'" *IPCom*, 861 F.3d at 1370 (quoting *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270, 1278 (Fed. Cir. 2012)).

3. Petitioner's Proposed Constructions

Petitioner proposes constructions for a number of claim terms, however, we need address only one for this institution decision.

Petitioner adopts the position, for purposes of this proceeding, that the term "a processor for" should be given its plain and ordinary meaning.

Pet. 18–19. Petitioner relies on Patent Owner having argued, in the now-dismissed lawsuit, "that this term does not invoke §112(6) and should be construed according to its plain and ordinary meaning." *Id.* (citing Ex. 1011); Ex. 1011, 22. Petitioner contends that, "to the extent the Board believes that §112(6) does apply to this term," "the specification describes a microcontroller as structure that performs the corresponding function." Pet. 19 (citing Ex. 1001, 17:40–49; Ex. 1011, 19). Petitioner does not provide further analysis or explanation of how this claim term should be construed under 35 U.S.C. § 112, sixth paragraph.

As discussed above, means-plus-function analysis under 35 U.S.C. § 112, sixth paragraph, may apply if the claim limitation "fails to 'recite[] sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Williamson*, 792 F.3d at 1348 (quoting *Watts*, 232 F.3d at 880). "[T]he essential inquiry is not merely the presence or absence of the word 'means' but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Id.* Claim terms are properly construed to include limitations not otherwise inherent in the term when the specification "clearly set[s] forth a definition of the disputed claim term." *CCS Fitness*, 288 F.3d at 1366. Here, we are directed to no such definition, but rather to a description of "a microcontroller as structure that performs the corresponding function" (Pet. 19 (citing Ex. 1001, 17:40–49)), which Petitioner relies on as support under 35 U.S.C. § 112, sixth paragraph (*id.* at 18–19). The Specification also uses the term "microprocessor" in the alternative to "microcontroller." *See, e.g.*, Ex. 1001, 3:11–12. These terms both differ from "processor," however, and the processing function is not

limited to the apparatus (monitor) that includes the indicated microcontroller (or microprocessor). *See, e.g.*, *id.* at 4:18–19, 7:55–57. There is, accordingly, no clear definition of "processor" that includes further limitations.

Petitioner focuses on the claim term "processor" instead of the claim phrase "a processor for receiving signals from the magnetic and electric transducers and generating data representative of the magnitude and relative phase of the respective magnetic and electric fields." Pet. 18–19. As with the limitation at issue in *Williamson*, the "format [is] consistent with traditional means-plus-function claim limitations . . . . replac[ing] the term 'means' with" a nonce word, here, "processor," and in *Williamson*, "module." *Williamson*, 792 F.3d at 1350. Also, as in *Williamson*, the "claim term . . . recites 'function without reciting sufficient structure for performing that function'" and, likewise, appears to be merely a substitute for the term "means for" associated with recited functional language invoking 35 U.S.C. § 112, sixth paragraph. *Id.* at 1348; *see also Ex parte Lakkala*, Appeal No. 2011-001526, slip op. at 9–13 (PTAB Mar. 13, 2013) (informative) (determining that a "processor in communication with the memory device and configured with the program to" perform certain functions is a means-plus-function recitation under 35 U.S.C. § 112, sixth paragraph); *Ex parte Erol*, Appeal No. 2011-001143 slip op. at 14–18 (PTAB Mar. 13, 2013) (informative) (determining that a "processor adapted to" perform several steps is a means-plus-function recitation under 35 U.S.C. § 112, sixth paragraph); *Ex parte Smith*, Appeal No. 2012-007631 slip op. at 12–16 (PTAB Mar. 14, 2013) (informative) (determining that a "processor in communication with the memory and programmed to" perform certain

functions is a means-plus-function recitation under 35 U.S.C. § 112, sixth paragraph).

Consideration of the functions performed by the processor confirms that the presumption against the term "processor" substituting for "means for" has been overcome here. If the functions performed are typical functions found in a general purpose computer without special programming, this would weigh against invoking 35 U.S.C. § 112, sixth paragraph. *See In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011). If the functions performed are not typical functions found in a processor, we look to see whether the claim recites sufficient structure, material, or acts for achieving the specified function. Here, the functions performed, including "generating data representative of the magnitude and relative phase of the respective magnetic and electric fields," are not typical functions found in a general purpose computer without special programming, and the claim itself does not recite sufficient structure, material, or acts for achieving the specified functions.

On this record, thus, we determine that the phrase "a processor for receiving signals from the magnetic and electric transducers and generating data representative of the magnitude and relative phase of the respective magnetic and electric fields" is a means-plus-function limitation under § 112, sixth paragraph.

4. Sufficiency of Petitioner's Showing

For a computer-implemented claim limitation interpreted under § 112, sixth paragraph, the corresponding structure must include the algorithm needed to transform the general purpose computer or processor disclosed in the specification into the special purpose computer programmed to perform

the disclosed algorithm. *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Thus, the specification must sufficiently disclose that algorithm. *Id.* at 1338. An algorithm may be expressed in any understandable terms including as a mathematical formula, in prose, in a flow chart, or "in any other manner that provides sufficient structure." *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008). Disclosure of such a corresponding algorithm is only not required when the claimed function "can be achieved by any general purpose computer without special programming." *In re Katz*, 639 F.3d at 1316.

Under our Rules, "[w]here the claim to be construed contains a means-plus-function or step-plus-function limitation as permitted under 35 U.S.C. [§ 112, sixth paragraph], 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." 37 C.F.R. § 42.104(b)(3) (emphasis added); *see* 35 U.S.C. § 312(a)(4) ("the petition provides such other information as the Director may require by regulation"). Here, Petitioner asserts that if the limitation is subject to treatment under 35 U.S.C. § 112, sixth paragraph, we should rely on Patent Owner's proposed construction set forth in district court. Pet. 19 (citing Ex. 1001, 17:40–49; Ex. 1011, 19). Patent Owner's proposed construction in district court, however, was expressly not a means-plus-function construction (Ex. 1011, 19) and the cited portion of the '090 patent, in full, states merely that:

> In an exemplary embodiment, the microcontroller 34 may be a Motorola MC68HC11 microcontroller. Other suitable microcontrollers might include the Motorola MC68HC12, the Intel 8051 series, the Micromint PIC series, or the BASIC

> series from Parallax. The principle requirements of the microcomputer are that it sample and record signals and control a communications device to telemeter recorded data to the central computing facility. The microcontroller 34 is connected to the gain controls of the amplifier 24 via a pair of the output ports 31 of the microcontroller 34.

Ex. 1001, 17:40–49. This description is insufficient support for the recited "processor for receiving signals from the magnetic and electric transducers and generating data representative of the magnitude and relative phase of the respective magnetic and electric fields." As explained above, what is required is disclosure of an algorithm that transforms the general purpose computer or processor to a special purpose processor programmed to perform the disclosed algorithm. *Aristocrat*, 521 F.3d at 1338. Here, the cited disclosure fails to even identify the nature of the received signals and outputted data, much less provide any algorithm for using the received signals to generate data according to the claim.

Petitioner also cites section VIII.A.2.f. of the Petition in stating that "[a]s discussed in more detail below . . . the prior art set forth herein teaches a microcontroller." Pet. 19 (citing *id.* at 38–40 (VIII.A.2.f.)). This section of the Petition cites portions of Libove and Dr. Olsen's testimony. *Id.* at 38–40 (citing Ex. 1003, 1:63–65, 2:52–54, 5:14–34, 6:52–55, 10:19–21, 10:35–46, 11:36–40, 11:54–61, 12:16–27, 12:38–43, 13:47–14:10, 21:44–46; Ex. 1007 ¶¶ 100–103). Neither these portions of Libove nor these portions of Dr. Olsen's testimony address the '090 patent Specification disclosing structure, material, or acts corresponding to the claimed functions.

Petitioner has failed to identify structure, material, and acts in the Specification of the '090 patent that correspond to the processor means of claim 1. Petitioner, thus, has not accounted for how such unidentified

structure, material, and acts would have been met by the prior art and, accordingly, fails to satisfy the burden required to support institution of *inter partes* review. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) ("In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable."). Our analysis of Petitioner's arguments regarding claims 1–3 ends with this determination.

We recognize that in discussing the '090 patent Specification, Petitioner contends that "[t]he microcontroller is programmed with software to determine the phase difference between the electric and magnetic fields." Pet. 7 (citing Ex. 1001, 18:41–60). Petitioner also contends that "[u]sing standard math and basic principles of electromagnetic physics, the central computing site uses [magnetic field, electric field, and relative phase angle data] to calculate, among other things, the power flow in the monitored lines" and that "the current and voltage in the power transmission line are calculated using the transduced magnetic and electric fields, respectively." *Id.* at 8 (citing Ex. 1001, 3:43–4:14).

As discussed above, however, Petitioner fails to rely on these contentions as informing the proper construction of the term "a processor." *See generally* Pet. Rather, Petitioner expressly relies on other portions of the '090 patent Specification for 35 U.S.C. § 112, sixth paragraph, support for the construction of the claim term. The mention of disclosure in a different context than as support for construction of the claim falls short of meeting Petitioner's burden for institution. *Cf. Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (quoting 35 U.S.C. § 312(a)(3)) (addressing "the requirement that the initial petition

identify 'with particularity' the evidence that supports the grounds for the challenge to each claim'"). Our role is not to remedy the deficiencies in Petitions that fall short. *Sirona Dental Sys. GMBH v. Institut Straumann AG*, 892 F.3d 1349, 1356 (Fed. Cir. 2018) (quoting *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356–57 (2018)) (explaining that because "'the petitioner's contentions, not the Director's discretion, define the scope . . . [,]' [i]t would thus not be proper for the Board to deviate from the grounds in the petition and raise its own obviousness theory" "institut[ing] a *different* inter partes review"); *cf. In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380–81 (Fed. Cir. 2016) (rejecting an argument that the Board properly "ma[de] an obviousness argument on behalf of [petitioner]" that "could have been included in a properly drafted petition," because "petitioner . . . bears the burden of proof"). Petitioner fails, accordingly, to meet its burden for instituting *inter partes* review.

IV. CONCLUSION

Petitioner has not established a reasonable likelihood of prevailing on its assertions that claims 1–3 are unpatentable.

V. ORDER

For the reasons given, it is:

ORDERED that the Petition is *denied* as to all challenged claims of the '090 patent and no trial is instituted.

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