

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner,

v.

GEOSCOPE TECHNOLOGIES PTE. LTD.,  
Patent Owner.

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IPR2023-01214  
Patent 8,320,264 B2

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Before PATRICK R. SCANLON, SHEILA F. McSHANE, and  
BRIAN D. RANGE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

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

## I. INTRODUCTION

Google LLC (“Petitioner”) filed a Petition for *inter partes* review of claims 1, 3, 6, 11, 13, 15, 20, 21, 23, and 25–27 of U.S. Patent No. 8,320,264 B2 (Ex. 1001, “the ’264 patent”), along with the Declaration of Mr. David H. Williams. Paper 2 (“Pet.”); Ex. 1008. Geoscope Technologies Pte. Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). With authorization, Petitioner filed a Reply to the Preliminary Response (Paper 10), and Patent Owner filed a Sur-reply (Paper 11).

Institution of an *inter partes* review is authorized by statute when “the information presented in the petition . . . and any response . . . 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.” 35 U.S.C. § 314(a) (2018). Upon consideration of the Petition, the Preliminary Response, the Petitioner Preliminary Reply, the Patent Owner Preliminary Sur-reply, and the evidence of record, we determine that Petitioner has not established a reasonable likelihood of prevailing with respect to the unpatentability of at least one claim of the ’264 patent. Accordingly, for the reasons that follow, we decline to institute *inter partes* review of claims 1, 3, 6, 11, 13, 15, 20, 21, 23, and 25–27 of the ’264 patent.

### *A. Real Parties-in-Interest*

Petitioner identifies itself, Google LLC, as the real party-in-interest. Pet. 2. Patent Owner identifies itself, Geoscope Technologies Pte. Ltd., as the real party-in-interest. Paper 4, 1.

*B. Related Matters*

The parties indicate this Petition is related to the district court litigations, *Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.*, 1:22-cv-01331-LGS (EDVA) (“Google action”) and *Geoscope Technologies Pte. Ltd. v. Apple Inc.*, 1:22-cv-01373-LGS (EDVA). Pet. 2; Paper 4, 1.

*C. The '264 Patent*

The '264 patent is titled “Method and Apparatus for Determining Path Loss by Active Signal Detection.” Ex. 1001, code (54). The '264 patent issued on November 27, 2012, and claims priority to a PCT application filed May 17, 2006 and Provisional Application No. 60/681,475 filed May 17, 2005. *Id.* at codes (22), (45), (60).

The '264 patent states that it “relates to a method for determining a path loss value of a signal transmitted from a wireless device and received by a receiver.” Ex. 1001, 1:65–67. Path loss, according to the '264 patent, is “a measure of signal attenuation.” *Id.* at 1:19. Specifically, it is “the difference between the transmitted signal power and the received signal power.” *Id.* at 1:19–21. The '264 patent explains that “[i]n wireless networks, service quality across geographic areas is audited by conducting drive tests.” *Id.* at 1:41–42. In these tests, a transmitter sends a “beacon signal,” and “receivers then record the received signal level.” *Id.* at 1:42–46. “Using the transmitted and received signal levels, path loss between the two locations can be computed.” *Id.* at 1:45–48.

According to the '264 patent, “[d]edicating a specific channel for path loss measurements” is “both costly and inefficient.” Ex. 1001, 1:55–58. The '264 patent proposes “assessing path loss without setting aside an

otherwise active frequency channel or disturbing the frequency use plan.”  
*Id.* at 1:58–61.

Figure 1, reproduced below, depicts a “schematic representation of a conventional cellular communication system.” Ex. 1001, 3:6–7.

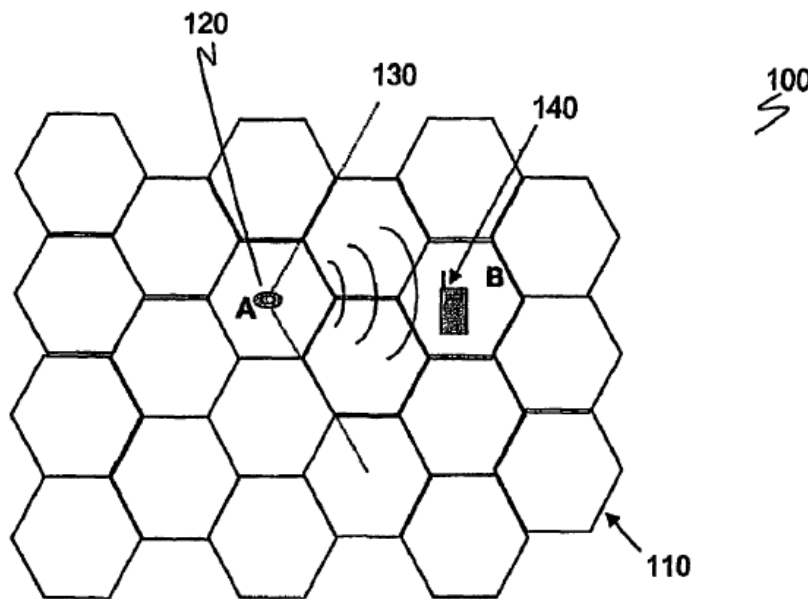


**Fig. 1 (Prior Art)**

Figure 1, above, depicts a conventional cellular communication system containing a geographic area 100. Ex. 1001, 3:15–17. The geographic area is divided into cells 110. Figure 1 also depicts a receiver 120 located in cell A and a wireless device 140 located in cell B. *Id.* at 3:16–18, 3:36–39. According to the '264 patent, a “[c]onventional frequency use plan uses several directional antennas each radiating at a specified sector.” *Id.* at 3:22–24. The frequency channels used in a particular cell may be “divided

into sector groups and are used only within a particular sector.” *Id.* at 3:27–29.

Figure 3, reproduced below, depicts a flow-diagram schematically representing an embodiment of the invention. Ex. 1001, 3:11–12.

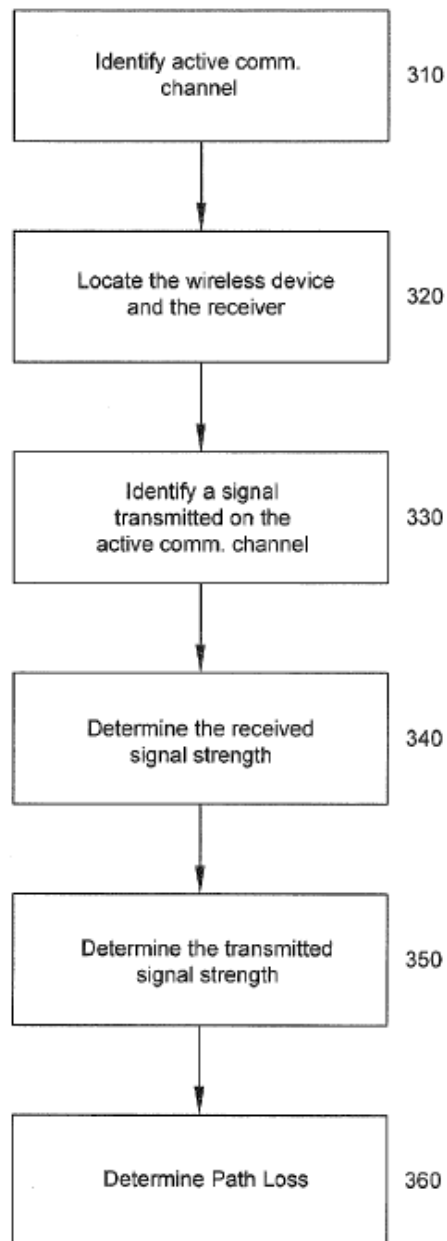


Fig. 3

Figure 3, above, is a flow-diagram for “a method for determining the path loss value throughout a network.” Ex. 1001, 5:1–3. Step 310 identifies “substantially interference-free active communication channels.” *Id.* at 5:1–5. Step 320 locates the receiver and the wireless device tasked with the active communication channel. *Id.* at 5:15–16. At step 330, “a signal transmitted on the active communication channel is detected for signal strength measurement.” *Id.* at 5:18–19. The received and transmitted signal strengths are determined at steps 340 and 350. *Id.* at 5:20–21. Finally, step 360 determines the path loss and “can be measured as a function of the received and transmitted signal strength.” *Id.* at 5:21–23.

*D. Illustrative Claim*

Petitioner challenges claims 1, 3, 6, 11, 13, 15, 20, 21, 23, and 25–27. Claims 1, 13, and 23 are independent claims. Independent claim 1 is reproduced below, with bracketed numbers added to limitations for reference purposes.

1[pre] A method for determining a path loss value of a signal transmitted from a wireless device and received by a receiver, where the wireless device and the receiver operate within a wireless communication system having at least one cell having at least one sector operating on at least one frequency channel, the method comprising the steps of:

- [1.1] identifying a geographic area where the path loss value is to be determined;
- [1.2] identifying a first cell, a first sector, and a first frequency channel associated with the geographic area wherein said wireless device is actively communicating with said receiver using said first frequency channel without disabling any other communication channel;
- [1.3] receiving at said receiver the signal transmitted from said wireless device on said first frequency channel;

- [1.4] receiving at said receiver an indication of transmission signal strength of said signal;
- [1.5] measuring at said receiver the received signal strength of said signal; and
- [1.6] determining the path loss value of said first frequency channel as a function of the indication of transmission signal strength and the received signal strength.

Ex. 1001, 6:41–62.

*E. Asserted Grounds of Unpatentability*

Petitioner asserts that claims 1, 3, 6, 11, 13, 15, 20, 21, 23, and 25–27 are unpatentable based on the following grounds:

| <b>Claim(s)<br/>Challenged</b>            | <b>35 U.S.C §</b>   | <b>Reference(s)/Basis</b>                                                                              |
|-------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------|
| 1, 3, 6, 11, 13, 15,<br>20, 21, 23, 25–27 | 102 <sup>1</sup>    | Almgren <sup>2</sup>                                                                                   |
| 1, 3, 6, 11, 13, 15,<br>20, 21, 23, 25–27 | 103(a) <sup>3</sup> | Almgren, Silventoinen <sup>4</sup> ,<br>Stilp <sup>5</sup> , Weaver <sup>6</sup> , Tayloe <sup>7</sup> |

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<sup>1</sup> Petitioner asserts that Almgren is prior art under § 102(b). Pet. 6.

<sup>2</sup> US 6,127,993, filed January 16, 1998, issued October 24, 2000 (Ex. 1004, “Almgren”).

<sup>3</sup> The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103, and was effective on March 16, 2013. Because the ’264 patent has an effective filing date prior to the effective date of the applicable AIA amendments (*see* Ex. 1001, codes (22), (45), (60)), we refer to the pre-AIA versions of 35 U.S.C. §§ 102, 103.

<sup>4</sup> US 6,498,932 B1, filed December 18, 1996, issued December 24, 2002 (Ex. 1006, “Silventoinen”).

<sup>5</sup> US 6,184,829 B1, filed January 8, 1999, issued February 6, 2001 (Ex. 1007, “Stilp”).

<sup>6</sup> US 5,917,811, filed May 22, 1996, issued June 29, 1999 (Ex. 1010, “Weaver”).

<sup>7</sup> US 5,023,900, filed December 7, 1989, issued June 11, 1991 (Ex. 1011, “Tayloe”).

| Claim(s)<br>Challenged                    | 35 U.S.C §       | Reference(s)/Basis                               |
|-------------------------------------------|------------------|--------------------------------------------------|
| 1, 3, 6, 11, 13, 15,<br>20, 21, 23, 25–27 | 102 <sup>8</sup> | Haartsen <sup>9</sup>                            |
| 1, 3, 6, 11, 13, 15,<br>20, 21, 23, 25–27 | 103(a)           | Haartsen, Silventoinen,<br>Stilp, Weaver, Tayloe |

Pet. 5.

## II. ANALYSIS

### *A. Level of Ordinary Skill in the Art*

Relying on the declaration of Mr. Williams, Petitioner proposes that a person of ordinary skill in the art at the time of the '264 patent,

would have been someone knowledgeable in wireless networks, cellular radio systems, mobile communication devices, and radio navigation systems, having at least a bachelor's degree in electrical engineering, with a radio frequency communications and/or navigation system technology as well as approximately two years of industry experience working on radio communication and/or navigation systems.

Pet. 12 (citing Ex. 1008 ¶¶ 6–12, 31). Patent Owner “adopts Petitioner’s definition of a person of ordinary skill in the art” for purposes of its Preliminary Response. Prelim. Resp. 14–15.

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active

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<sup>8</sup> Petitioner asserts that Haartsen is prior art under § 102(b). Pet. 6.

<sup>9</sup> US 5,491,837, filed March 7, 1994, issued February 13, 1996 (Ex. 1005, “Haartsen”).

workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). The level of ordinary skill in the art is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We adopt the assessment offered by Petitioner, without the qualifier “at least” because its use introduces vagueness, for the purposes of this Decision because it is consistent with the ’264 patent and the asserted prior art.

### *B. Claim Construction*

In this *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (2021). Under the principles set forth by our reviewing court, the “words of a claim ‘are generally given their ordinary and customary meaning,’” as would be understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “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).

In the Google action, the district court issued a claim construction order. Ex. 1028. Petitioner provides the following claim constructions, which are consistent with either the construction adopted by the district court

or the stipulation of the parties for the construction of certain terms (Ex. 1023) in the Google action:

- “path loss”: “the difference between the transmitted signal power and the received signal power”;
- “wireless device”: “a mobile device configured to communicate while unattached to any physical wires”; and
- “indication of transmission signal strength”: “information specifying the strength (e.g., in dBm) at which said signal was transmitted by the wireless device”

Pet. 13–14; *see also* Ex. 1023, 2; Ex. 1028, 32–34. Petitioner asserts that other claim terms should be afforded their ordinary and customary meaning consistent with *Phillips*. Pet. 12.

Patent Owner “does not dispute Petitioner’s statement on claim construction” for purposes of its Preliminary Response. Prelim. Resp. 15.

For the purposes of this Decision, we will use the claim constructions agreed to by the parties at this juncture. We determine that we need not expressly construe any other claim terms at this juncture. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only 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))).

### *C. Principles of Law*

A claim is unpatentable under 35 U.S.C. § 102 if a prior art reference discloses each and every limitation of the claimed invention, either explicitly or inherently. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047 (Fed. Cir. 1995); *see MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (“To anticipate, a claim a prior art reference must disclose every limitation of the claimed invention . . . ”; any limitation not explicitly

taught must be inherently taught and would be so understood by a person experienced in the field); *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991) (the dispositive question is “whether one skilled in the art would reasonably understand or infer” that a reference teaches or discloses all of the limitations of the claimed invention).

A patent claim is unpatentable under 35 U.S.C. § 103 if “the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective date of the claimed invention to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103 (2011); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective indicia of nonobviousness.<sup>10</sup> *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

*D. Asserted Anticipation and Obviousness over Almgren*

Petitioner contends that claims 1, 3, 6, 11, 13, 15, 20, 21, 23, and 25–27 are anticipated by Almgren or alternatively would be rendered obvious by Almgren in view of other prior art. Pet. 14. In support, Petitioner also relies upon the Williams Declaration. Ex. 1008. Patent Owner argues that Almgren does not teach all the limitations of the claims. Prelim. Resp. 16–17.

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<sup>10</sup> No evidence of objective indicia of nonobviousness is presented by Patent Owner. *See generally* Prelim. Resp.

We begin our discussion with a brief summary of Almgren, and then address the evidence and arguments presented.

*1. Almgren (Ex. 1004)*

Almgren discloses methods and apparatuses “for estimating path loss in a radio communications system.” Ex. 1004, code (57). Almgren addresses problems, including “how path loss on different connections in a mobile radio communications system can be estimated from values of transmitted and received power levels on radio channels.” *Id.* at 2:52–55.

Almgren discloses “measuring the power level received by a base station or a mobile station receiver on a certain, or given, radio channel.” Ex. 1004, 2:66–3:1. Specifically, Almgren discloses “selecting a radio channel and determining the power level at which those transmitters that send on the radio channel transmit.” *Id.* at 3:15–17. Then, the “power level received on said radio channel in a number of receivers in the radio communications is measured.” *Id.* at 3:18–19. According to Almgren, the selected radio channel may be an uplink channel or a downlink channel. *Id.* at 3:19–24.

Almgren describes a “recursive procedure” that uses “the transmitted and received power levels as input data” to estimate an amplification factor for each transmitter and receiver pair. Ex. 1004, 3:31–35. Almgren uses amplification factors as “a measurement of path loss in the system.” *Id.* at 4:32–33.

*2. Discussion*

*a. Claims 1, 13, and 23*

We determine that Petitioner has failed to meet its burden to show a

reasonable likelihood that Almgren anticipates or would have rendered claims 1, 13, and 23 obvious in view of other prior art. This determination is based on the evidence and argument presented for limitations [1.2] and similar limitations in claims 13 and 23, so we solely address this issue below.

Limitation [1.2] recites:

identifying a first cell, a first sector, and a first frequency channel associated with the geographic area wherein said wireless device is actively communicating with said receiver using said first frequency channel without disabling any other communication channel;

Ex. 1001, 6:49–53. Claims 13 and 23 similarly recite, respectively, “a first frequency channel in an active communication between the wireless device and the receiver without disabling any other communication channel” and “wireless device is actively communicating with said receiver using said first frequency channel without disabling any other communication channel.” Ex. 1001, 7:37–39, 8:28–30.

Petitioner asserts that “[t]he phrase ‘without disabling any other communication channel’ encompasses not dedicating a specific frequency channel for measuring path loss.” Pet. 25 (citing Ex. 1001, 1:58–61, 3:39–45, 3:48–50, 4:60–63; Ex. 1008 ¶ 124). Petitioner argues that Almgren discloses active communication occurring “without disabling any other communication channel.” *Id.* at 25–26 (citing Ex. 1004, 18:6–15, claim 1; Ex. 1008 ¶ 124). Petitioner contends that “Almgren estimates ‘interference of any connections that may be set up on different radio channels’ (i.e., no channels are disabled).” *Id.* at 26 (citing Ex. 1004, 18:6–15; Ex. 1008 ¶ 125). Petitioner asserts that Almgren uses “‘already established’ connections (i.e., active communication) to determine path loss,” and this

discloses the alleged innovation of the '264 patent, that is, “using ‘already established’ connections (i.e., active communication) to assess path loss without setting aside an otherwise active frequency channel or disturbing the frequency use.” *Id.* (citing Ex. 1004, 17:17–41; Ex. 1008 ¶¶ 126–127; Ex. 1001, 1:59–61).

Petitioner asserts that “Almgren establishes new connections with low interference.” Pet. 26 (citing Ex. 1008 ¶ 128). According to Petitioner, Almgren’s system knows which radio channels are used “by which mobile stations, base station membership, and transmitted power levels.” *Id.* (citing Ex. 1004, 18:7–9, Ex. 1008 ¶ 129). Petitioner refers to Almgren’s disclosure that “a radio channel [is selected] which is estimated to subject the newly established connection with solely low interference, while preferably not introducing too much interference in respect of any other connection.” *Id.* (citing Ex. 1004, 18:12–15; Ex. 1008 ¶¶ 129–131). Petitioner argues that in Almgren “[n]ew connections do not disable other communication channels.” *Id.* Petitioner relies on the same evidence and arguments for the showing for similar limitations in claims 13 and 23. Pet. 39, 45.

Patent Owner asserts that Almgren fails to teach “without disabling any other communication channel.” Prelim. Resp. 16–17. Patent Owner argues that “Petitioner ignores the claim language as written and attempts to swap in a different meaning without proposing that as a construction.” *Id.* at 16. Patent Owner contends that, even if Petitioner’s proposed interpretation of the term is accepted, Petitioner’s arguments on Almgren still fail. *Id.* at 16–17.

Petitioner bears the burden of demonstrating a reasonable likelihood of prevailing in demonstrating that Almgren discloses or teaches all the

claim limitations at issue, and, specifically, the burden extends to negative limitations such as “without disabling any other communication.” *See IBM v. Iancu*, 759 F. App’x 1002, 1011 (Fed. Cir. 2019) (explaining that a reference’s silence was not by itself sufficient to establish that the reference teaches a process involving only one user authentication action). Petitioner does not appear to dispute its required showing, that is, Petitioner does not argue that the absence of an element in the prior art is sufficient *per se* to satisfy a negative limitation. Rather, the Petition affirmatively asserts that Almgren discloses or teaches the limitation “without disabling any other communication.” Pet. 25–26.

Petitioner, however, argues that “[t]he phrase ‘without disabling any other communication channel’ encompasses not dedicating a specific frequency channel for measuring path loss.” Pet. 25; *see also* Ex. 1008 ¶ 124. That is, Petitioner’s position appears to be that the recited limitation could be sufficiently disclosed or met by prior art if it instead meets the different requirement of “not dedicating a specific frequency channel for measuring path loss.” We do not agree. For support, Petitioner cites portions of the ’264 patent Specification that discuss not dedicating specific frequency channels for measuring path loss. Pet. 25 (citing Ex. 1001, 1:58–61, 3:39–45, 3:48–50, 4:60–63). Petitioner does not explain, however, why the term “without disabling any other communication channel” should be taught by this disclosure of this alternative requirement or, in other words, Petitioner does not explain why that term should encompass “not dedicating a specific frequency channel for measuring path loss.” Mr. William does not provide any additional explanation and merely repeats the statements of the Petition in a conclusory manner. Ex. 1008 ¶ 124. As discussed above, and

as the parties agreed, we will proceed with the assessment of the merits using the plain meaning of the claim term “without disabling any other communication channel.”

We agree with Patent Owner that the arguments and evidence presented in the Petition are insufficient to show that Almgren discloses or teaches limitation [1.2] and the similar limitations of claims 13 and 23.

Petitioner relies upon Almgren’s disclosures of

A call setup is another example [of] the use to which the invention can be put. By knowing which radio channels are used by which mobile stations, base station membership, and transmitted power levels, it is possible to estimate interference of any connections that may be set up on different radio channels. Similarly to what has been described above, there can be selected a radio channel which is estimated to subject the newly established connection with solely low interference, while preferably not introducing too much interference in respect of any other connection.

Ex. 1004, 18:6–15. Petitioner equates Almgren’s estimates of “interference of any connections that may be set up on different radio channels” with “i.e., no channels are disabled,” but provides no explanation of why this is so.

Pet. 26 (citing Ex. 1004, 18:6–15; Ex. 1008 ¶ 125). Absent explanation, we fail to discern that this portion of Almgren discloses that there is an active communication of a wireless device using a first frequency channel “without disabling any other communication channel.” Rather, if anything, this passage of Almgren describes using disclosed methods of estimating power loss and interference for newly established connections. Other portions of Almgren relied upon by Petitioner (Ex. 1004, 17:17–41, claim 1) similarly describe determining power levels and estimating interference, but do not disclose “without disabling any other communication channel.” We have

reviewed Mr. William’s supporting testimony, and similarly can discern no support by way of explanation for Almgren’s disclosure or teaching of this limitation. Ex. 1008 ¶¶ 124–131.

Petitioner additionally asserts “[t]o the extent Almgren does not expressly disclose ‘a first sector . . . wherein said wireless device is actively communicating,’ that Stilp, Weaver, Silventoinen, and the ’264 patent’s admitted prior art should be considered in combination with Almgren. Pet. 31–35. Petitioner does not provide any argument or evidence that the additional prior art remedies the deficiencies of Almgren’s teachings for limitation [1.2]. *Id.*

Accordingly, Petitioner has not met its burden to demonstrate a reasonable likelihood that it would prevail in showing that Almgren anticipates or would have rendered claims 1, 13, and 23 obvious in view of other asserted prior art.

*b. Claims 3, 6, 11, 15, 20, 21, and 25–27*

Petitioner contends that claims 3, 6, 11, 15, 20, 21, and 25–27 are anticipated by or would be rendered obvious by Almgren in view of other prior art. Pet. 35–48. Because claims 3, 6, 11, 15, 20, 21, and 25–27 depend directly or indirectly from claims 1, 13, and 23, and because Petitioner’s arguments and evidence for the dependent claims do not cure the shortcomings as to the independent claims, the showing for the dependent claims is also deficient.

Accordingly, Petitioner has not met its burden to demonstrate a reasonable likelihood that it would prevail in showing that Almgren anticipates or would have rendered claims 3, 6, 11, 15, 20, 21, and 25–27 obvious in combination with other prior art.

*E. Asserted Anticipation and Obviousness over Haartsen*

Petitioner contends that claims 1, 3, 6, 11, 13, 15, 20, 21, 23, and 25–27 are anticipated by Haartsen or alternatively would be rendered obvious by Haartsen in view of other prior art. Pet. 49–68. In support, Petitioner also relies upon the Williams Declaration. Ex. 1008. Patent Owner argues that Haartsen does not teach all the limitations of the claims. Prelim. Resp. 17–19.

We begin our discussion with a brief summary of Haartsen, and then address the evidence and arguments presented.

*1. Haartsen (Ex. 1005)*

Haartsen discloses methods and systems for “the adaptive allocation of channels within a radio communication system” in which the allocation is “based on the carrier to interference ratio.” Ex. 1005, code (57). Haartsen describes a channel allocation scheme that “makes use of periodic measurements” performed base stations and/or mobile stations “to determine the best channel under the current radio environment.” *Id.* at 5:31–35. A “mobile station” as used in Haartsen refers to “any remote station, for example vehicular radiotelephones and hand-held radiotelephones.” *Id.* at 5:35–37.

Figure 4 of Haartsen is depicted below.

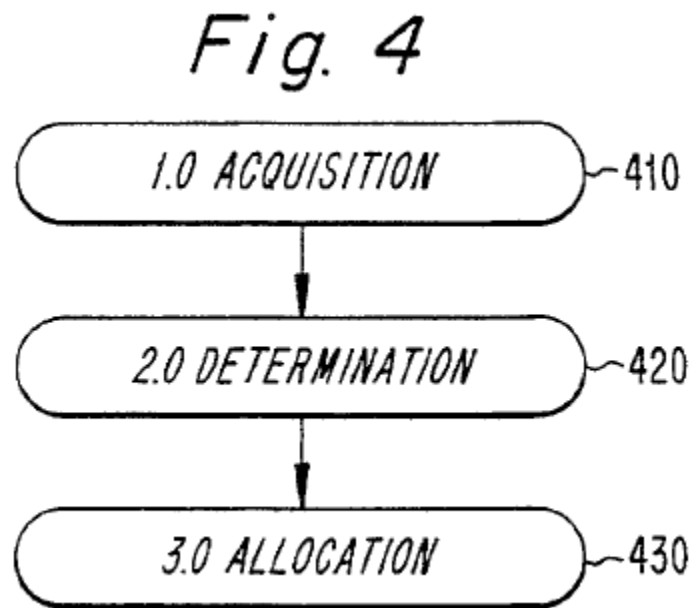


Figure 4, above, is a flow chart illustrating the basic operation of an exemplary embodiment of Haartsen. Ex. 1004, 4:26–27. At the acquisition phase 410, the mobile station “periodically measures the received signal strength (RSSI) of a number of individual pilot signals transmitted from surrounding base stations.” *Id.* at 5:53–57. The RSSI measurements, according to Haartsen can “be used to calculate the path losses between the base stations whose signals were measured and the mobile station performing the measurements.” *Id.* at 7:5–8. The next phase depicted in Figure 4 is the determination phase 420. This phase includes finding the base station and channel “combination that requires the least amount of mobile station transmit power in order to maintain satisfactory quality on the link.” *Id.* at 8:18–21. The final phase depicted in Figure 4 is the channel allocation 430. *Id.* at 5:49–50.

## 2. Discussion

### a. Claims 1, 13, and 23

We determine that Petitioner has failed to meet its burden to show a reasonable likelihood that Haartsen anticipates or would have rendered claims 1, 13, and 23 obvious in view of other prior art. This determination is based on the evidence and argument presented for limitations [1.2] and similar limitations in claims 13 and 23, so we solely address this issue below.

As discussed above, limitation [1.2] recites active communication of a wireless device using a first frequency channel “without disabling any other communication channel.” *See* Ex. 1001, 6:49–53. Claims 13 and 23 similarly recite, respectively, “a first frequency channel in an active communication between the wireless device and the receiver without disabling any other communication channel” and “wireless device is actively communicating with said receiver using said first frequency channel without disabling any other communication channel.” *Id.* at 7:37–39, 8:28–30.

Petitioner argues that in Haartsen’s path loss determination “a wireless device is actively communicating, without disabling any other communication.” Pet. 53 (citing Ex. 1005, 5:21–22, 2:1–23, 9:22–63, Fig. 5, Fig. 6; Ex. 1008 ¶¶ 331–339). Petitioner asserts that Haartsen discloses a pilot signal, which functions primarily as a “set-up or control channel” for mobile device handover at a known frequency, to measure path loss. *Id.* (citing Ex. 1005, 5:39, 6:58–59, 9:40–45; Ex. 1008 ¶ 335); *see also* Ex. 1008 ¶ 333 (“Haartsen discloses a pilot signal to be ‘a set-up or control channel’ (EX1005, 5:39) at a known frequency which is used to measure path loss. EX1005, 6:58–59.”). Petitioner contends that “Haartsen also discloses using

traffic channels (e.g., traffic channel 335) of a base station ‘to which [a mobile station] is currently connected’ to measure path loss.” *Id.* (citing Ex. 1005, 6:50–51; Ex. 1008 ¶ 334). Petitioner argues that “[t]he pilot signals are not transmitted on a dedicated frequency channel and their primary purpose of mobile device handover as a ‘set-up or control channel’ is not disrupted when used for measuring path loss.” *Id.* (citing Ex. 1005, 5:37–40, Fig. 5, Fig. 6; Ex. 1008 ¶ 335).

As discussed above, Petitioner bears the burden of demonstrating a reasonable likelihood of prevailing in demonstrating that Haartsen discloses or teaches all the claim limitations at issue, and, specifically, the burden extends to negative limitations. Petitioner does not appear to dispute this required showing. *See* Pet. 53.

As discussed above, Petitioner asserts that the limitation “without disabling any other communication channel” would be sufficiently met by “not dedicating a specific frequency channel for measuring path loss.” Pet. 25 (“The phrase ‘without disabling any other communication channel’ *encompasses* not dedicating a specific frequency channel for measuring path loss.”); *see also* Ex. 1008 ¶ 124. As discussed above, we do not agree with Petitioner’s interpretation of the limitation.

Petitioner does not meet its burden to demonstrate that Haartsen discloses or teaches active communication of a wireless device using a first frequency channel “without disabling any other communication channel.” As to pilot signals, Petitioner merely asserts that pilot signal transmissions are not disrupted when measuring path loss, but that does not address the status of “any other communication channel.” Pet. 53. Petitioner also refers to a portion of Haartsen concerning re-allocation. *Id.* (citing Ex. 1005, 9:22–

63); Ex. 1008 ¶ 339. Petitioner’s only explanation of the teaching is Mr. William’s testimony that in Haartsen’s adaptive channel allocation functions over “a call [] already in progress,” but, again, that does not address the status of “any other communication channel.” Ex. 1008 ¶ 339. Petitioner also refers to Haartsen’s disclosure of a monitor of signals sent by a base station “to which [a mobile station] is currently connected,” but that portion of Haartsen does not disclose or teach that there is no disablement of *other* communications channels. Pet. 53 (citing Ex. 1005, 6:50–51).

Additionally, Petitioner asserts that Stilp and Weaver provide evidence that Haartsen’s base stations represent cells having sectors. Pet. 59–60. Petitioner does not argue that the additional prior art remedies the deficiencies of Haartsen’s teachings for limitation [1.2].

Accordingly, Petitioner has not met its burden to demonstrate a reasonable likelihood that it would prevail in showing that Haartsen anticipates or would have rendered claims 1, 13, and 23 obvious in combination with other prior art.

*b. Claims 3, 6, 11, 15, 20, 21, and 25–27*

Petitioner contends that claims 3, 6, 11, 15, 20, 21, and 25–27 are anticipated by or would be rendered obvious by Haartsen in view of other prior art. Pet. 60–68. Because claims 3, 6, 11, 15, 20, 21, and 25–27 depend directly or indirectly from claims 1, 13, and 23, and because Petitioner’s arguments and evidence for the dependent claims do not cure the shortcomings as to the independent claims, the showing for the dependent claims is also deficient.

Accordingly, Petitioner has not met its burden to demonstrate a reasonable likelihood that it would prevail in showing that Haartsen

anticipates or would have rendered claims 3, 6, 11, 15, 20, 21, and 25–27 obvious in view of other prior art.

### III. DISCRETIONARY DENIAL

Patent Owner requests that we exercise our discretion under 35 U.S.C. § 314(a) to deny institution. Prelim. Resp. 2–11. These issues are moot in view of the deficiencies of the Petition discussed above.

### IV. CONCLUSION

For the foregoing reasons, we conclude that the information presented in the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing that at least one claim of the '264 patent is unpatentable. Accordingly, we do not institute *inter partes* review.

### V. ORDER

Accordingly, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is *denied*.

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