

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IMPINJ, INC.,
Petitioner,

v.

NXP B.V.,
Patent Owner.

IPR2020-01422
Patent 7,257,092 B2

Before MIRIAM L. QUINN, MICHELLE N. WORMMEESTER, and
STACY B. MARGOLIES, *Administrative Patent Judges*.

WORMMEESTER, *Administrative Patent Judge*.

DECISION
Denying Petitioner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Impinj, Inc. (“Petitioner”) filed a Request for Rehearing (Paper 15, “Req. Reh’g”) of our Decision Denying Institution of *Inter Partes* Review (Paper 14, “Institution Decision” or “Inst. Dec.”) of U.S. Patent No. 7,257,092 B2 (Ex. 1001, “the ’092 patent”). Petitioner seeks rehearing of our determination not to institute *inter partes* review of the challenged claims of the ’092 patent over all four asserted grounds, namely, two obviousness grounds based on MacLellan¹ and two obviousness grounds based on Gallagher.² Req. Reh’g 1–3. In our Institution Decision, we determined that Petitioner had not sufficiently explained its argument that MacLellan teaches the recited “specific useful data” or its argument that Gallagher teaches the recited “specific useful data.” Inst. Dec. 10–14, 17–19. Petitioner asserts that we abused our discretion because we “erroneously construed the term ‘specific useful data’ to exclude transmitting all useful data,” and, even if our construction were correct, we “overlooked that the prior art disclosed communicating less than the entire amount of useful data stored on their RFID tags.” Req. Reh’g 1. For the reasons that follow, Petitioner’s Request for Rehearing is denied.

II. BACKGROUND

The Petition (Paper 2, “Pet.”) challenged claims 1–22 of the ’092 patent on the following grounds. Pet. 3, 13–71.

¹ MacLellan, U.S. Patent No. 5,940,006, issued Aug. 17, 1999 (Ex. 1003).

² Gallagher, U.S. Patent No. 6,963,270 B1, issued Nov. 8, 2005 (Ex. 1004).

Claims Challenged	35 U.S.C. §	References/Basis
1–5, 7–22	103	MacLellan
1–22	103	MacLellan, Rodgers ³
1–5, 7–22	103	Gallagher
1–22	103	Gallagher, Rodgers

For the asserted grounds based on MacLellan, Petitioner relied on MacLellan as teaching the recited “specific useful data.” Pet. 23–24. For the asserted grounds based on Gallagher, Petitioner relied on Gallagher as teaching the recited “specific useful data.” *Id.* at 56–57. We denied institution of these asserted grounds because we were not persuaded by Petitioner’s arguments regarding the teachings of MacLellan or Gallagher. Inst. Dec. 10–14, 17–19.

III. STANDARD OF REVIEW

When rehearing a decision, the Board reviews the decision for an abuse of discretion. *See* 37 C.F.R. § 42.71(c). An abuse of discretion occurs when a “decision [i]s based on an erroneous conclusion of law or clearly erroneous factual findings, or . . . a clear error of judgment.” *PPG Indus., Inc. v. Celanese Polymer Specialties Co.*, 840 F.2d 1565, 1567 (Fed. Cir. 1988). “The burden of showing that a decision should be modified lies with the party challenging the decision.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012). In its request for rehearing, the dissatisfied party must (1) “specifically identify all matters the party believes the Board misapprehended or overlooked” and (2) identify the place “where each matter was previously addressed.” 37 C.F.R. § 42.71(d); Office

³ Rodgers, U.S. Patent No. 6,362,737 B1, issued Mar. 26, 2002 (Ex. 1005).

Patent Trial Practice Guide, 77 Fed. Reg. at 48,768. We address Petitioner's arguments with these principles in mind.

IV. ANALYSIS

As noted above, Petitioner argues that we abused our discretion because we “erroneously construed the term ‘specific useful data’ to exclude transmitting all useful data,” and, even if our construction were correct, we “overlooked that the prior art disclosed communicating less than the entire amount of useful data stored on their RFID tags.” Req. Reh’g 1. We address these arguments in turn.

A. “specific useful data”

In our Institution Decision, we stated that certain passages in the ’092 patent specification distinguish between “useful data” and “specific useful data.” *See* Inst. Dec. 12–14. For example, the ’092 patent teaches that, “beginning with the determined start block, a total of n useful data blocks UDB, i.e., $n \times \text{UDB}$ are read out as specific useful data . . . from *among* the useful data UD stored in the memory 41, which are stored in the form of N useful data blocks UDB, i.e., $N \times \text{UDB}$.” Ex. 1001, 10:13–19 (emphasis added) (quoted by Inst. Dec. 13). We noted in the Institution Decision that the teaching that specific useful data is read from among useful data implies that specific useful data is comprised of a portion of useful data. Inst. Dec. 13.

The ’092 patent additionally teaches that a request for specific useful data to be transmitted from the data carrier to the communication station “is given by the specification of a useful data start block and the specification of

a specific number *n* of useful data blocks.” Ex. 1001, 16:22–28 (quoted by Inst. Dec. 13). Alternatively, in the absence of a request, automatically “*all the useful data* stored in a data carrier . . . are transmitted from each data carrier 2 (DC) to the communication station 1,” or “automatically a specific selection of useful data blocks UDB are transmitted from each data carrier 2 (DC) to the communication station 1.” *Id.* at 16:28–34 (emphasis added) (quoted by Inst. Dec. 13). We further noted in the Institution Decision that these teachings distinguish between transmitting a specific selection of useful data blocks (specific useful data) and transmitting all useful data blocks (useful data). Inst. Dec. 13–14.

With respect to the term “specific useful data,” Petitioner contends that we “veered from the ordinary meaning of ‘specific,’” where “no evidence was presented that the ordinary meaning of ‘specific . . . data’ is ‘less than all’ data,” and that we “erred when [we] construed the term ‘specific useful data’ to exclude the transmission of all useful data stored on a data carrier.” Req. Reh’g 4. According to Petitioner, “in the context of an amount, ‘specific’ can simply mean a particular or specified amount,” where “specify” means “to mention or name specifically or definitely; state in detail.” *Id.* at 4, 4 n.1 (citing Dictionary.com for the definition of “specify”). Petitioner adds, “even if the term ‘subset’ were used, a ‘subset’ is well-accepted in mathematics to mean ‘a set consisting of elements of a given set ***that can be the same as*** the given set or smaller.’” *Id.* at 4 n.1 (citing Dictionary.com for the definition of “subset”). To illustrate, Petitioner asserts that, “if a person were to withdraw a ‘specific’ amount of money from a bank account, that ‘specific’ amount may be less than or equal to the total amount of money in the account.” *Id.* at 4.

Petitioner acknowledges that we relied on the '092 patent specification to guide our understanding of the term “specific useful data,” but argues that we “misunderstood [the '092 patent’s] disclosure and inappropriately imported limitations from the specification into the claims.” Req. Reh’g 4–5. In particular, Petitioner contends that “the statement that ‘nxUDB are read out as specific useful data . . . from **among** the useful data UD stored in the memory 41’ simply implies that the specific useful data is obtained from the useful data stored in memory, as opposed to some other type of data stored in memory or elsewhere—it does not describe (or imply) any restriction as to the **amount** of useful data that may be read.” *Id.* at 7–8; *see also id.* at 7 (“[I]f a club were to select new members from ‘among’ a pool of applicants, that does not prohibit the club from selecting any number of those applicants, including **all** of them, to become new members.”).

Petitioner additionally contends that “to the extent that there is any distinction between ‘n’ and ‘N’ in the specification, it is not one that is present in the claims.” Req. Reh’g 9. Petitioner points out that, “[a]lthough the claims recite ‘specific useful data (nxUDB),’ they do not recite ‘useful data’ as being ‘NxUDB’—instead, the claims recite that the data carriers have ‘useful data (**UD**).” *Id.* According to Petitioner, we “erred by improperly importing the limitation, ‘NxUDB,’ from the specification into the claims, when [we] construed the term ‘specific useful data (nxUDB)’ in contrast to ‘NxUDB.’” *Id.*

Petitioner further addresses our reading of the '092 patent’s teachings as distinguishing between transmitting a specific selection of useful data

blocks and transmitting all useful data blocks. The passage on which we relied reads as follows:

In the case of the method described above, the specific useful data nxUDB transmitted from each data carrier 2 (DC) to the communication station 1 are fixed in that each request data block RDB includes an item of request information which, in the case described, is given by the specification of a useful data start block and the specification of a specific number n of useful data blocks. However, it is also possible to select a design in which no request for useful data is made by the communication station 1, but in which automatically either all the useful data stored in a data carrier 2 (DC), or automatically a specific selection of useful data blocks UDB are transmitted from each data carrier 2 (DC) to the communication station 1.

Ex. 1001, 16:22–34. Petitioner asserts that “when describing the automatic embodiment the [’092 patent] specification does not use the terms ‘specific useful data’ or ‘nxUDB,’ even though the previous sentence describing the request-based embodiment does—instead, it refers to ‘a specific selection of useful data blocks UDB.’” Req. Reh’g 11 (internal citations omitted) (citing Ex. 1001, 16:22–23, 16:32–34). Petitioner contends that “[a] person of skill in the art would not understand such a description of the automatic embodiment as defining the term ‘specific useful data (nxUDB)’ to necessarily exclude all useful data,” and that the description “actually indicates that the discussion of ‘specific useful data’ in the request-based embodiment can retrieve all or less than all the useful data based on the request.” *Id.* at 11–12. Petitioner proposes that “where the request specifies the data carrier to return all the useful data . . . , the request would simply specify ‘a start block’ that is the beginning of the useful data and indicate a ‘number n of useful data blocks’ that is equal to the total number of useful data blocks.” *Id.* at 10–11; *see also id.* at 8–9 (asserting that “[a] person of

ordinary skill reading the patent would understand ‘n’ and ‘N,’ as variables, could be any value, including equal to each other—and, the case where ‘n’ equals ‘N’ includes ***all*** the useful data (*e.g.*, if $n=N$, then $nxUDB=NxUDB$),” where $nxUDB$ describes specific useful data and $NxUDB$ describes useful data). Petitioner adds that “there is no indication in the claims or specification, and the Patent Owner did not contend, that the claims are restricted to embodiments that automatically return less than all the useful data.” *Id.* at 12. According to Petitioner, we thus “erred when [we] misunderstood the [’092 patent] disclosures and imported a limitation to exclude transmission of all useful data from the specification into the claims.” *Id.*

Petitioner adds that the ’092 patent specification “itself conflates ‘useful data’ and ‘specific useful data.’” *Id.* at 5–6 (citing Ex. 1001, 1:33–41).

We are not persuaded by Petitioner’s contentions. In sum, Petitioner argues in its Request for Rehearing that “specific useful data” could be comprised of all the “useful data.” Even if we were persuaded that “specific useful data” could be comprised of all the “useful data,” however, Petitioner did not make this argument in its Petition. As discussed in our Institution Decision, Petitioner instead argued that “MacLellan discloses that a *specific set* of ‘optional data’ is stored on a tag.” Pet. 23 (emphasis added) (cited by Inst. Dec. 12–13). The wording of this argument suggests that the “specific set” is comprised of a portion of all the optional data. Petitioner, however, relied on the same passage describing optional data 603 in MacLellan to support its contentions that MacLellan teaches both the recited “useful data” and the recited “specific useful data.”

For instance, with respect to “useful data,” Petitioner asserted that MacLellan “discloses that optional data sent by the tag can be ‘any data stored on the Tag 102 that is always transmitted to the Interrogator 101 together with the Tag ID 602.’” *Id.* at 18–19 (quoting Ex. 1003, 8:30–32). As to “specific useful data,” Petitioner asserted that “MacLellan discloses that a specific set of ‘optional data’ is stored on a tag,” and cited *again* to MacLellan’s teaching that “Optional Data 603 . . . contain[s] any data stored on the Tag 102 that is always transmitted to the Interrogator 101.” *Id.* at 23 (citing Ex. 1003, 8:30–31). In our Institution Decision, we stated that Petitioner did not sufficiently explain how MacLellan teaches *specific* useful data. Inst. Dec. 12–13. In particular, we noted that Petitioner did not sufficiently explain how optional data 603 on a tag is a “specific set” of the same optional data 603. *See id.* Because Petitioner’s arguments and evidence focused on MacLellan’s optional data as satisfying both “useful data” and “specific useful data” limitations, it was incumbent upon Petitioner to explain its claim scope position regarding these two terms. Alternatively, it was Petitioner’s burden to explain how MacLellan’s optional data would satisfy both limitations despite the claim utilizing different terms. In other words, if Petitioner considers a “specific set” of optional data to be all the optional data, Petitioner needed to state that position in the Petition and provide sufficient explanation with supporting evidence in light of the ’092 patent’s teachings that distinguish useful data from specific useful data.

Regarding the Gallagher-based grounds, Petitioner similarly argued that Gallagher’s “fast read field data is ‘specific useful data’ transmitted from the tag to the reader” after having identified Gallagher’s fast read field

data as “useful data.” Pet. 54, 56–57. As with Petitioner’s arguments regarding the MacLellan-based grounds, we stated in our Institution Decision that Petitioner did not sufficiently explain how Gallagher teaches *specific* useful data. Inst. Dec. 17–19.

B. Prior Art Disclosures

Petitioner argues that we “misapprehended the teachings of the prior art that disclosed sending less than all useful data stored on the prior art RFID tags, teachings that were expressly identified by Petitioner.” Req. Reh’g 13. With respect to the MacLellan-based grounds, Petitioner contends that we “overlooked that MacLellan does disclose that its ‘optional data’ can be less than the entirety of useful data stored on the tag.” *Id.* In particular, Petitioner asserts that MacLellan’s optional data “was presented in the Petition in contrast to *other* data that the tag stored and transmitted in response to requests.” *Id.* Petitioner points us to where the Petition cites MacLellan’s teaching about “Optional Data 603 that the Tag 102 normally transmits during a Tag Response Signal” as well as MacLellan’s teaching that “***Tag 102 . . . [may] respond with data other than the data with which it normally responds during a Tag Response.***” *Id.* at 14 (quoting Pet. 15 (quoting Ex. 1003, 7:67–8:2, 9:30–31)). According to Petitioner, MacLellan’s “tag may be requested to return data other than ‘optional data 603,’” for example, tag data 605. *Id.* (citing Ex. 1003, 9:27–31, 9:41–45, 9:53–57, Fig. 6C). Petitioner asserts that “[b]ecause ‘optional data’ is data that is normally transmitted in a response and ‘tag data 605’ is data that can be later selected for return, this indicates that the ‘optional data’ is not all the useful data stored on the tag.” *Id.* at 14–15.

We are not persuaded by Petitioner's contention. In its Petition, Petitioner identified only MacLellan's optional data 603 as "useful data" and "specific useful data." Pet. 17–19, 23; *see also* Req. Reh'g 13 ("For the MacLellan grounds, Petitioner identified MacLellan's 'optional data' as disclosing the "useful data" that is stored on the data carrier, as well as the 'specific useful data' that is transmitted from the data carrier back to a communication station."). Petitioner did not identify any other data in MacLellan as "useful data." Although Petitioner characterized other data on the tag as "optional data," Petitioner did not point to any teaching in MacLellan that sufficiently supports characterizing MacLellan's other data as "optional data." *See* Pet. 15 (citing Ex. 1003, 9:30–31, 7:67–8:2, Figs. 6A, 6B). Indeed, MacLellan distinguishes between its optional data 603 and its other data, which is divided into sync signal 601, tag ID 602, tag ack 604, error detect and/or correct 606. Ex. 1003, Figs. 6A, 6B; *see also id.* at Fig. 6C (additionally showing tag data 605). Moreover, regarding "specific useful data," Petitioner argued that "MacLellan discloses that a specific set of 'optional data' is stored on a tag," not that MacLellan discloses that a specific set of data is stored on a tag, where the specific set is the optional data in contrast to other data stored on the tag. If Petitioner's position is that all the data stored on the tag in MacLellan is "useful data" and MacLellan's optional data 603 is "specific useful data," then Petitioner needed to explain that position in the Petition. We could not have misapprehended or overlooked a position that was not articulated in the Petition.

With respect to the Gallagher-based grounds, Petitioner similarly identified only Gallagher's fast read field data as "useful data" and "specific

useful data.” Pet. 54, 56–57. Petitioner contends that we “misapprehended that Gallagher describes, as was pointed out by Petitioner, that fast read data is ‘critical data.’” Req. Reh’g 15 (citing Pet. 54 (citing Ex. 1004, 2:42–44)). According to Petitioner, “[s]uch a characterization implies that there is other data, non-critical data, stored on Gallagher’s prior art tags.” *Id.*

Petitioner’s contention is unpersuasive. As Petitioner acknowledges, it “identified ‘fast read’ data as both the ‘useful data’ and the ‘specific useful data.’” Req. Reh’g 15; *see also* Pet. 54, 56–57. Petitioner did not additionally identify what it calls Gallagher’s non-critical data (Req. Reh’g 15) as “useful data.” Pet. 54. If Petitioner’s position is that both Gallagher’s critical data and non-critical data comprise “useful data” and that Gallagher’s critical data comprises “specific useful data,” then Petitioner needed to explain that position in the Petition. Again, we could not have misapprehended or overlooked a position that was not articulated in the Petition.

V. CONCLUSION

For the foregoing reasons, Petitioner has not demonstrated that we abused our discretion by not instituting *inter partes* review of the challenged claims of the ’092 patent.

VI. ORDER

Accordingly, it is

ORDERED that Petitioner’s request for rehearing is *denied*.

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