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Paper 14
Entered: December 14, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

G+ COMMUNICATIONS, LLC,
Patent Owner.

IPR2023-00665
Patent 9,184,881 B2

Before GREGG I. ANDERSON, SCOTT B. HOWARD, JASON M. REPKO, *Administrative Patent Judges.*

HOWARD, *Administrative Patent Judge*.

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

I. INTRODUCTION

Samsung Electronics Co., Ltd. ("Petitioner") filed a Petition requesting *inter partes* review of claims 1–14 of U.S. Patent No. 9,184,881 B2 (Ex. 1001, "the '881 patent"). Paper 1 ("Pet."). G+ Communications, LLC ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp."). Because Petitioner did not demonstrate a reasonable likelihood that it would prevail with respect to at least one claim, we denied institution of *inter partes* review. Paper 10 ("Decision" or "Dec.").

Petitioner filed a timely request for rehearing of our Decision. Paper 11 ("Rehearing Request" or "Reh'g Req."). With our authorization (Paper 12), Patent Owner filed an opposition (Paper 13, "Opposition" or "Opp.").

Petitioner argues that we "misapprehended or overlooked Petitioner's arguments and evidence establishing that Malladi discloses the "fails to detect" limitation, as recited in claims 1 and 9." Reh'g Req. 1 (footnote omitted). Specifically, Petitioner argues that we (1) misapprehended the proper claim construction of the "fails to detect limitation," (2) Malladi discloses "fails to detect" under the proper claim construction, and (3) Malladi discloses "fails to detect" under our prior understanding. *Id.* at 1–2.

In its Opposition, Patent Owner argues that Petitioner is not pointing out arguments from the Petition that the Board misapprehended or overlooked. Opp. 1. Instead, according to Patent Owner, Petitioner is improperly making new arguments. *Id.*

For the reasons that follow, Petitioner's request for rehearing is *denied*.

II. STANDARD OF REVIEW

A request for rehearing must identify specifically all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply. 37 C.F.R. § 42.71(d) (2022). Petitioner, as the party challenging the Decision, has the burden of showing that the Decisions should be modified. *Id*. When rehearing a decision on a petition, the Board reviews the decision for an abuse of discretion. *Id*. at § 42.71(c). "An abuse of discretion occurs if the decision (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact findings; or (4) involves a record that contains no evidence on which the Board could rationally base its decision." *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 442 (Fed. Cir. 2015).

III. ANALYSIS

A. Claim Construction

We apply the same claim construction standard used in the federal courts, in other words, the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). Under the *Phillips* standard, the "words of a claim 'are generally given their ordinary and customary meaning,'" which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1312–13.

The preamble of claim 9 recites, *inter alia*, "in a situation that a user equipment *fails to detect* a physical downlink control channel corresponding to transmitted data in a sub-frame transmitting data." Ex. 1001, 12:55–58

(limitation 9.pre-1) (emphasis added). The body of claim 9 further recites "when the user equipment *fails to detect* the physical downlink control channel corresponding to the transmitted data in the sub-frame which transmits the data." Ex. 1001, 13:18–20 (limitation 9.c) (emphasis added). We refer to these limitations as the "fails to detect" limitation.

Neither Petitioner not Patent Owner proposed any explicit constructions of the "failure to detect" limitation. *See* Pet. 12; Prelim. Resp. 14–15. However, the parties provided implicit constructions. *See* Pet. 16–18; Prelim. Resp. 25; Reh'g Req. 4–9; Opp. 7. Because the meaning of this limitation formed the basis for the Decision and the focus of the Rehearing Request, we expressly construe the limitation below.

In the Decision, we implicitly construed the limitation "fails to detect" as part of our reasonable likelihood analysis. *See* Dec. 14–15. Specifically, we stated that "we agree with Patent Owner that the '881 patent draws a distinction between a situation where the UE 'fails to detect' a PDCCH and when it fails to receive the PDDCH, such as due to a decoding error." *Id.* at 14. Our implicit construction was based on the '881 patent, which states as follows:

> Preferably, in a situation that the user equipment fails to detect a physical downlink control channel corresponding to transmitted data in the sub-frame transmitting the data, or fails to receive the data thereof, the user equipment feeds back a negative acknowledgement message as the confirmation information of this downlink sub-frame; in a situation that the user equipment detects the physical downlink control channel corresponding to the transmitted data in the sub-frame transmitting the data, the user equipment analyzes the data in this downlink sub-frame, and feeds back an acknowledgement message as the confirmation information in a situation that the analysis is successful, otherwise, the negative acknowledgement message is fed back as the confirmation information.

Ex. 1001, 4:18–31 (highlighting added). The yellow highlighted language above describes a situation in which the UE "fails to detect." The paragraph goes on with the disjunctive "or" (red) followed by a second situation where the UE "fails to receive the data" (light blue). *See id.* The use of the disjunctive "or" implies that the failing to detect is different than failing to receive. Indeed, if the '881 patent considered the fails to receive the same as fails to detect, there would be no need to list both items. In light of the specification, we concluded that because "the language recited in claim 9 only recites 'fails to detect,' . . . fails to receive is not encompassed by the claim." Dec. 15.

Petitioner argues in its Rehearing Request that our discussion of this limitation has an error. Reh'g Req. 4–8. In this regard, Petitioner focuses on the following line from the Decision:

> In light of Patent Owner's argument, we are not sufficiently persuaded that Petitioner has shown that Malladi teaches the disputed limitation. Specifically, on the current record, we agree with Patent Owner that the '881 patent draws a distinction between a situation where the UE "fails to detect" a PDCCH and *when it fails to receive the PDDCH*, such as due to a decoding error.

Dec. 14 (emphasis added). Specifically, Petitioner argues that "[e]very reference to a failure to 'receive' in the specification relates to the ***data*** in the sub-frame transmitting the data, which is sent and received ***after*** the PDCCH." *Id.* at 4–5 (citing Ex. 1001, 6:35–40, 6:44–50, 7:1–6, 7:10–14, 8:23–28). Petitioner further points that our conclusion was inconsistent with the very section of the Specification we cited and the testimony of Patent Owner's expert, Dr. Akl. *Id.* at 5–7 (citing Ex. 1001, 4:18–31; Ex. 2001 ¶ 22).

We agree with Petitioner that we erred in describing what the '881 patent was describing at column 4, lines 18 through 31. Instead, we should have stated the following:

> In light of Patent Owner's argument, we are not sufficiently persuaded that Petitioner has shown that Malladi teaches the disputed limitation. Specifically, on the current record, we agree with Patent Owner that the '881 patent draws a distinction between a situation where the UE 'fails to detect' a PDCCH and when it fails to receive the data sent in the sub-frame transmitting the data due to a decoding error. That understanding is consistent with Patent Owner's argument. *See* Prelim. Resp. 25 ("The '881 Patent distinguishes between a situation that the UE 'fails to detect' a PDCCH corresponding to the transmitted data in the sub-frame transmitting the data and a situation in which the UE 'fails to receive the data thereof.'" (quoting Ex. 1001, 4:18–21)).

We note that is consistent with Patent Owner's implicit construction. *See* Prelim. Resp. 25; Reh'g Opp. 6–7.

Petitioner also argues that "the Board has effectively interpreted 'detect' to simply mean ***receiving*** data, even if the UE has no understand[ing] of what the received data is." Reh'g Req. 8. According to Petitioner, "[t]here is ***no evidence*** a [person having ordinary skill in the art] would equate merely ***receiving*** PDCCH data as ***detecting*** the PDCCH, which requires decoded the data such that the UE knows the data constitutes the PDCCH." *Id.* Petitioner further argues that other dependent claim limitations support its understanding that detecting means "properly decoding the PDCCH to obtain the control information, because merely 'hav[ing] the PDCCH' without more would not enable the UE to analyze the data." *Id.* at 8–9.

Patent Owner argues that the '881 patent draws a distinction between failing to detect a PDCCH due to a decoding error and other situations:

> The '881 Patent explains that sub-frames transmit control information followed by data on physical channels such as the PDCCH. *See, e.g.,* Ex. 1001, 2:35–43, 3:42–47; Prelim. Resp. 7. The '881 Patent specifically teaches a solution to when "a situation that a user equipment fails to detect a physical downlink control channel corresponding to transmitted data in a sub-frame transmitting data, or fails to receive the data thereof." Ex. 1001, 4:18:21; Prelim. Resp. 7. In other words, the user equipment is attempting to detect the PDCCH *associated with the data* on the subframe. If the user equipment receives data but cannot detect the PDDCH that corresponds to that data, that is a failure to detect the PDDCH under the '881 Patent; likewise, if the user equipment fails to receive data at all, that is a failure to receive under the '881 Patent. Prelim. Resp. 7. In the Institution Decision, the Board agreed with Patent Owner that the '881 Patent's specification "draws a distinction between a situation where the UE 'fails to detect' a PDCCH and when it fails to receive the PD[C]CH, such as due to a decoding error" and cited to the '881 specification to support this assertion. Inst. Dec. 14–15 (citing Ex. 1001, 4:18-31).

Reh'g Opp. 7.

Based on the current record, we are not sufficiently persuaded by Petitioner's argument that we misapprehended Petitioner's arguments regarding the scope of the claim. Although Petitioner points to various part of the '881 patent to support its argument, Petitioner fails to identify where those arguments were made in the Petition. *See* 37 C.F. R. § 42.71(d) (requiring the moving party to identify "the place where each matter was previously address."). A request for rehearing is not an opportunity to make new arguments.

Regardless, even if we did consider Petitioner's new arguments, we do not find them persuasive. To the contrary, based on the section of the specification cited above, the '881 patent the "fails to detect" limitation does

not encompass failing to receive the data due to a decoding error. *See* Ex. 1001, 4:18–31; Dec. 14–15.[1]

B. Malladi and the "Fails to Detect" Limitation

In the Petition, Petitioner argues that Malladi discloses the "fails to detect" limitation. *See* Pet. 16–18, 31–33.[2] Specifically, Petitioner argues that Malladi describes a situation in which "the control information is missed by the UE." Pet. 16–17 (quoting Ex. 1005 ¶ 9 and citing ¶¶ 73, 79, 85–86). Petitioner further states that "[a]s Malladi explains, in this scenario, 'the UE incorrectly decodes the PDCCH [(Physical Downlink Control Channel)] and misses the control information." Pet. 17 (quoting Ex. 1005 ¶ 61). According to Petitioner, "[b]y incorrectly decoding the PDCCH and missing the control information, the UE fails to detect the PDCCH of a DL transmission carrying corresponding data." Pet. 17 (citing Ex. 1005 ¶ 7).

Petitioner further argues that "[i]f the PDCCH for a DL subframe is missed, Malladi explains that the UE sends back a negative acknowledgement message for this DL subframe. For example, in this scenario, Malladi explains that the 2-bit value '[0, 0]' is sent as the ACK information for such a subframe." Pet. 17 (citing Ex. 1005 ¶¶ 85, 86, 94, 108, 110, 111, Figs. 6, 8, 11, 12).

In its Rehearing Request, Petitioner argues that it was not relying on incorrectly decoding the PDCCH. Reh'g Req. 10–15. According to Petitioner, the discussion in the Petition "includes no mention of incorrectly

[1] For purposes of this Decision, we need determine the full scope of the claim.

[2] The arguments for each time the "fails to detect" limitation appears are substantially the same.

decoding the PDCCH. It instead only mentions missing the PDCCH ('fails to detect')." *Id.* at 10. Petitioner argues that paragraphs and figures that the Board misapprehended or overlooked "confirm that Malladi teaches a UE that 'fails to detect' the PDCCH transmitting the control information." *Id.* at 10–13 (discussing Ex. 1005 ¶¶ 85, 86, 94, 108, 110, 111, Figs. 11–12).

Petitioner also argues that Board's reliance on Figures 6 and 8 are "misplaced." Reh'g Req. 13. According to Petitioner, Malladi makes it clear that "misses the PDCCH" is not limited to cases in which the PDCCH is incorrectly decoded. *Id.* at 13–15.

Patent Owner argues that Petitioner is improperly presenting a new argument, and not pointing out any arguments actually made in the Petitioner that we overlooked or misapprehended. *See* Reh'g Opp. 6–6. Specifically, Patent Owner argues

> Moreover, Petitioner now states that Malladi's alleged disclosure of "fails to detect" is not limited to an incorrectly decoded PDCCH. Req. Reh'g 9–10. However, Petitioner explicitly limits its arguments to a missed decoding for PDCCH in the Petition. Pet. 17 ("As Malladi explains, in this scenario, '*the UE incorrectly decodes the PDCCH* and misses the control information.' (EX1005, ¶[0061].)." (emphasis added)). Petitioner lists Malladi's disclosure regarding the 2-bit ACK information in the Petition, then goes on to specify that Malladi's "fails to detect" scenario is met by the "UE incorrectly decodes the PDCCH and misses the control information." *Id.* In the Petition, Petitioner explicitly states, "*by incorrectly decoding the PDCCH* and missing the control information, the UE fails to detect the PDCCH." *Id*. (emphasis added). As the Board noted, Petitioner's "arguments show that the UE has the PDCCH, but that data is not received due to a transmission error." Inst. Dec. 15. Petitioner made no such statement about any other portion of Malladi for this limitation. Any attempt by Petitioner to broaden its argument should be rejected.

Id. at 5.

We are not persuaded that we misapprehended or overlooked Petitioner's arguments from the Petition. Petitioner focuses on various sections of Malladi cited in the Petition. Reh'g Req. 10–15. However, for the most part, Petitioner does not cite to where in the Petition it made those arguments. *Id.* That is because it cannot, as the thrust of the arguments in the Petition is that Malladi discloses decoding errors, which is outside the scope of our claim construction. *See* Pet. 16–17. Specifically, the Petition makes it clear that (1) Petitioner is focusing on an incorrectly decoded PDCCH and (2) Petitioner is arguing that missing the control information is the same is incorrectly decoding the PDCCH:

> The scenario where control information is missed, as described in Malladi, discloses "a situation that a user equipment fails to detect a physical downlink control channel corresponding to transmitted data in a sub-frame transmitting data," as claimed. (EX1002, ¶61.) As Malladi explains, in this scenario, "*the UE incorrectly decodes the PDCCH and misses the control information*." (EX1005, ¶[0061].) According to Malladi, "PDCCH" refers to the "Physical Downlink Control Channel." (*Id.*, ¶[0026].) By *incorrectly decoding the PDCCH and missing the control information*, the UE fails to detect the PDCCH of a DL transmission carrying corresponding data. (*See, id.*, ¶[0007].) Additionally, with reference to Figure 2, Malladi explains that transmissions of DL control information and data are "partitioned into subframes." (*Id.*, ¶[0030], Fig. 2.)

Pet. 17 (underlining in original, italics added). As the italicized language makes clear, the argument in the Petition focused on incorrectly decoding the PDCCH and does not address not receiving the PDCCH. Despite our relying and quoting from this paragraph in the Decision, Petitioner did not address that language in its Rehearing Request. *Compare* Dec. 15, *with* Reh'g Req. 10–15.

Although Petitioner does not address that paragraph in the Rehearing Request, Petitioner quotes from the preceding paragraph of the Petition. *See* Reh'g Req. 10–11. That paragraph states as follows:

> Second, Malladi discloses "in a situation that a user equipment fails to detect a physical downlink control channel corresponding to transmitted data in a subframe transmitting data, the user equipment feeds back a negative acknowledgement message as confirmation information of this downlink sub-frame," as claimed. (EX1002, ¶¶60-63.) Malladi explain that "the ACK information may have a fixed size," such as "a fixed number of bits (e.g., two bits)." (EX1005, ¶[0009].) Because data blocks may be transmitted in the form of one or more codewords, (id., ¶[0028]), Malladi explains that the "two bits may be defined based on one format if two codewords are sent and based on another format if one codeword is sent," (id., ¶[0009]). *Malladi further explains that "[o]ne 2-bit value may indicate that the control information is missed by the UE*," and the "remaining 2-bit values may convey decoding status of the one or two codewords sent to the UE." (*Id.*; *id.*, ¶¶[0073], [0079], [0085]-[0086].)

Pet. 16–17 (underlining in original, emphasis added). Read in isolation, "control information is missed by the UE" might refer to not receiving a PDCCH. However, as explained above, the following paragraph on page 17 of the Petition makes it clear that, in the Petition, missed control information refers to the UE incorrectly decoding the PDCCH, which implies that the PDCCH was received. Moreover, as we stated in the Decision, that understanding is consistent with the disclosure in Malladi.

> Additionally, the [0, 0] code which is sent in step 846 of Malladi Figure 8 also shows that the PDCCH was detected but improperly decoded. Malladi Figure 6 "shows four formats for fixed-size CQI and ACK information." Ex. 1005 ¶ 16. In each of those formats, [0, 0] means "Missed PDCCH." Ex. 1005, Fig. 6. Malladi further explains, in a paragraph Petitioner relies on, that "Missed PDCCH" refers to one that was detected, but

> incorrectly decoded such that the control information is missed: "[T]he UE incorrectly decodes the PDCCH and misses the control information." Ex. 1005 ¶ 61.

Dec. 16–17.

Because the argument that Malladi discloses not receiving the PDCCH was not set forth clearly in the Petition, it is not a proper basis for granting Petitioner's Request for rehearing. *See* 37 C.F.R. § 42.71(d) ("*The request must specifically identify* all matters the party believes the Board misapprehended or overlooked, and *the place where each matter was previously addressed* in a motion, an opposition, a reply, or a sur-reply." (emphases added)). We cannot misapprehend or overlook an argument that was not made.

IV. CONCLUSION

Petitioner has not carried its burden of demonstrating we misapprehended or overlooked any matters in our Institution Decision.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner's Request for Rehearing is *denied*.

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