

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MEDIATEK INC. and MEDIATEK USA, INC.,  
Petitioner,

v.

NIPPON TELEGRAPH AND TELEPHONE CORPORATION,  
Patent Owner.

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IPR2020-01404  
Patent 7,280,551 B2

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Before GREGG I. ANDERSON, CHARLES J. BOUDREAU, and  
NORMAN H. BEAMER, *Administrative Patent Judges*.

ANDERSON, *Administrative Patent Judge*.

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

## I. INTRODUCTION

MediaTek, Inc. and MediaTek, USA, Inc. (collectively “Petitioner”) filed a Petition requesting *inter partes* review of claims 1–8 of U.S. Patent No. 7,280,551 B2 (Ex. 1001, “the ’551 patent”) and a Preliminary Reply. Paper 2 (“Pet.”); Paper 11 (“Prelim. Reply”). Nippon Telegraph and Telephone Corporation (“Patent Owner”) filed a Preliminary Sur-Reply and Preliminary Response. Paper 12 (“Prelim. Sur-Reply”); Paper 8 (“Prelim. Resp.”). We instituted *inter partes* review on February 16, 2021. Paper 14 (“Inst. Dec.”). Patent Owner filed a Response (Paper 19, “PO Resp.”), Petitioner filed a Reply (Paper 22, “Reply”), and Patent Owner filed a Sur-Reply (Paper 23, “Sur-Reply”). A hearing was held on November 18, 2021, and a transcript has been filed of record. Paper 30 (“Tr.”). A Final Written Decision was mailed on February 3, 2022, determining that Petitioner had not shown that any of the challenged claims are unpatentable. Paper 31 (“Final Dec.”). Petitioner filed a timely Request for Rehearing pursuant to 37 C.F.R. § 42.71(d). Paper 32 (“Req. Reh’g” or “Request”).

For the reasons set forth below, Petitioner’s Request for Rehearing is *denied*.

## II. LEGAL STANDARD

When rehearing a final decision, the party dissatisfied with the decision may make a single request for rehearing. 37 C.F.R. § 42.71(d). The party challenging the decision has

the burden of showing a decision should be modified lies with the party challenging the decision. 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.

*Id.*

Further, “[a]bsent a showing of ‘good cause’ . . . new evidence will not be admitted” in connection with a request for rehearing. Patent Trial and Appeal Board Consolidated Trial Practice Guide 90 (Nov. 2019), <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf> (“CTPG”) (citing *Huawei Device Co. v. Optis Cellular Tech., LLC*, IPR2018-00816, Paper 19 at 4 (PTAB Jan. 8, 2019) (precedential)). Thus, a request for rehearing is not an opportunity to present new arguments or evidence or merely to disagree with the panel’s assessment of the arguments or weighing of the evidence. Beyond responding to Petitioner’s arguments, we deny the Request and decline to modify our Final Decision.

### III. DISCUSSION

In the Final Decision we determined none of the challenged claims were shown to be unpatentable. Final Dec. 51. We determined that none of the prior art cited by Petitioner showed a “mandatory channel” as we construed the term as used in the claims. *Id.* at 10–20. Petitioner alleges our findings resulted from overlooking evidence and argument of record or an abuse of discretion. *See* Req. Reh’g. 1–3 (summarizing the arguments), 4–10. We disagree that any matters were misapprehended or overlooked, for the reasons below.

The preamble of claim 1, which we analyzed as representative, recites [1PRE]<sup>1</sup> A wireless packet communication method for transmitting a plurality of wireless packets simultaneously by using multiple wireless channels determined to be idle by carrier sense [option 1], a single wireless channel determined to be idle

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<sup>1</sup> As we did in the Final Decision, the bracketed labels are used to designate each claim limitation. *See* Final Dec. 6, n.5.

and MIMO [option 2], or the multiple wireless channels and the MIMO [option 3], the method comprising:

[1A] setting a *mandatory channel* that is always used for transmission; and

[1B] transmitting the wireless packets by using a wireless channel/wireless channels that includes/include the *mandatory channel*, only when the mandatory channel is idle.

Ex. 1001, 12:13–25. In the Final Decision, we determined that 1PRE, the preamble of claim 1, was limiting and that it recited three options, indicated by brackets above, as separate alternatives for the claimed communication method. Final Dec. 14.

In the Final Decision, we adopted Patent Owner’s proposed construction and construed the term “mandatory channel” to mean “one channel in a wireless multichannel communication system whose idle state determines whether there can be a transmission over the other wireless channels.” Final Dec. 10. Petitioner argues generally that we should have applied the plain meaning of the term which it alleges “permits the challenged claims to cover *both* single channel and multi-channel systems.” Req. Reh’g 4. Further, according to Petitioner, our final construction “restricts the claims to covering *only* multi-channel systems.” *Id.*

For Petitioner’s asserted ground of unpatentability based on Shpak<sup>2</sup> and Lundby,<sup>3</sup> and separate from the construction of “mandatory channel,” the Request asserts we overlooked Petitioner’s evidence in the Reply explaining why a person of ordinary skill in the art would have combined the

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<sup>2</sup> Shpak, US 2003/0206532 A1, filed Aug. 7, 2002, published Nov. 6, 2003 (Ex. 1005).

<sup>3</sup> Lundby et al., US 6,560,292 B1, issued May 6, 2003 (Ex. 1008).

two channels as taught by Lundby with the one channel taught by the Shpak reference. Req. Reh’g 13–15. Augmentation of bandwidth was the asserted motivation for combining Lundby with Shpak. *Id.*

*A. Evidence Demonstrating that a Single MIMO-Implemented Channel Is Not a Multi-Channel System*

In the Final Decision, we explained that in the Institution Decision we preliminarily found the preamble, 1PRE, is limiting. Final Dec. 14. The Request relies on option 2 from the preamble of claim 1, “a single wireless channel determined to be idle and MIMO,” which Petitioner argues “clearly covers single channel systems.” Req. Reh’g 4–5 (citing Pet. 27–30; Prel. Reply, 2–3; Reply 20–21; Ex. 1003<sup>4</sup> ¶ 90; Ex. 1062<sup>5</sup> ¶¶ 13–14; Final Dec. 14 (see above)). The Institution Decision put Petitioner on notice that we preliminarily determined that MIMO included at least two channels. Final Dec. 16–17; *see also* Req. Reh’g 7–8 (“The Board’s misunderstanding of how MIMO works was foreshadowed in the Institution Decision when the Board wrongly concluded that the Ho reference ‘describes MIMO as including at least two channels.’ ([citing Inst. Dec.] 20).”).

Petitioner’s primary argument is that MIMO requires only a single channel. Req. Reh’g 5–6. Petitioner then alleges it is undisputed by Patent Owner that MIMO includes “transmitting a plurality of wireless packets using ‘a single wireless channel determined to be idle and MIMO’ occurs on a *single* wireless channel.” *Id.* at 6 (citing Reply 21). Petitioner alleges we “misapprehended the evidence” in finding that a “single MIMO-

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<sup>4</sup> Declaration of Tim A. Williams, Ph.D. (“Williams Declaration,” Ex. 1003).

<sup>5</sup> Reply Declaration of Tim A. Williams Ph.D. (“Williams Reply Declaration,” Ex. 1062).

implemented channel is actually a *multichannel* communication system.”  
*Id.* (citing Final Dec. 17–18). Petitioner concludes this alleged  
misapprehension of the evidence is clearly erroneous and must result in  
granting the Request and modifying the Final Decision. *Id.*

The Request asserts

Although the Board correctly explained that MIMO creates “sub-channels” within a single wireless channel [Final Dec. 17], it clearly erred in concluding that those sub-channels somehow converted the single wireless channel into a multichannel system. No party made such an argument, and the record contains no evidence on which the Board could base its decision. That the parties did not argue that MIMO sub-channels “somehow differ[] in function from channels” [quoting Final Dec. 17] was due to the fact that, consistent with the ’551 Patent itself [citing Ex. 1001, 1:61–63], no party (or their expert) considered a MIMO sub-channel to be an independent frequency channel, *i.e.*, what the parties interpreted the term “channel” to mean in this proceeding. [citing Prelim. Resp. 14–15].

*Id.* at 6–7.

We are not persuaded that we overlooked evidence that a single MIMO channel is not a multi-channel system. The preamble option 2 upon which Petitioner relies on requires MIMO, which as Petitioner acknowledges includes sub-channels within a single wireless channel. Req. Reh’g 6–7 (citing Final Dec. 17). The Final Decision relied on evidence from Petitioner’s expert in finding MIMO includes sub-channels. Final Dec. 17–18 (citing Ex. 1003 ¶¶ 39–40).

No construction of “channel” was offered during trial, and the plain and ordinary meaning of “channel” was followed. Petitioner cites the Preliminary Response and argues “no party (or their expert) considered a MIMO sub-channel to be an independent frequency channel, *i.e.*, what the

parties interpreted the term ‘channel’ to mean in this proceeding.” Req. Reh’g 6–7 (citing Prelim. Resp. 14–15). Petitioner’s citation to Patent Owner’s Preliminary Response does not show or support why a “sub-channel” is not a “channel.” As we determined, and as Petitioner acknowledged, “[t]he parties do not dispute the meaning of ‘channel.’” Final Dec. 17 (citing Reply 20).

We also determined that there was no evidence of record that MIMO sub-channels “somehow differ[] in function from channels.” Final Dec. 17. Petitioner does not directly address why a “sub-channel” differs from a “channel.” Instead, Petitioner argues there is a difference between the two based on the ’551 patent’s disclosure that “[i]n MIMO, different wireless packets are transmitted from a plurality of antennas at the same time on the same wireless channel.” Req. Reh’g 6–7 (citing Ex. 1001, 1:61–63). This disclosure does not discuss or otherwise support any distinction between a sub-channel and a channel.

Petitioner argues that “no party (or their expert) considered a MIMO sub-channel to be an *independent frequency channel*, *i.e.*, what the parties interpreted the term ‘channel’ to mean in this proceeding.” Req. Reh’g 6–7 (citing Prelim. Resp. 14–15) (emphasis added). This assertion is wrong. The Final Decision cited Petitioner’s expert as describing “how each MIMO channel may have its capacity ‘increased by creating multiple, *independent* ‘*sub-channels*’ within the overall channel, which might be referred to as a ‘MIMO channel’ when used for MIMO transmissions.” Final Dec. 17 (quoting Ex. 1003 ¶ 39) (emphasis added).

Petitioner argues Patent Owner and its expert both “agreed that a single MIMO implemented channel transmits multiple wireless packets simultaneously on a single wireless channel.” Req. Reh’g 5 (citing Prelim.

Resp. 18). We reject any suggestion that Patent Owner somehow impliedly agreed that the preamble option relied on by Petitioner excluded multi-channel systems. To the contrary, Patent Owner argued that the single wireless channel preamble option “is not limited to a single channel because it is ‘possible to use other idle channels.’” Final Dec. 15 (citing PO Resp. 12–13 (citing Ex. 2005 ¶¶ 50, 65–67; Ex. 1001, 12:13–25 (claim 1), 1:24–26)).

Petitioner has not shown we overlooked evidence demonstrating that a single MIMO implemented channel is not a multi-channel system.

*B. Evidence Demonstrating that “Power Leakage” Occurs in Single Channel System*

We determined that prevention of leakage between multiple channels is the purpose of the invention. Final Dec. 20, *see also id.* at 13 (citing Ex. 1001, 2:26–30). The Request seeks to clarify that Petitioner does not allege the claims “cover *only*” a single wireless channel. Req. Reh’g 9. We are not under any such misunderstanding. Petitioner seeks our determination on unpatentability based on the preamble option of a “single wireless channel.” *See* Section III.A.1 above; Final Dec. 25–26. However, Petitioner ignores “and MIMO” from the selected option 2, which formed the basis for our determination that, properly construed, claim 1’s preamble is limited to multi-channel systems. *See* Section III.A above.

Petitioner contends that we “overlooked Petitioner’s evidence that the problem of ‘power leakage’ *is not limited to multichannel systems.*” Req. Reh’g 9. Specifically, the Request cites the ’551 patent’s discussion of power leakage in a single channel system as overlooked evidence. *Id.* at 9–10 (citing Ex. 1001, 3:27–30). Also allegedly overlooked are the Williams Reply Declaration for the contention that power leakage can arise in single



channel systems and is not limited to multi-channel systems. *Id.* at 10 (citing Ex. 1063 ¶¶ 37–42).

Fundamentally, the reasons we construed the “single wireless channel” option to include multi-channel systems does not turn on the purpose of the invention. As previously discussed, our construction is based on MIMO. *See* Section III.A above. Regardless, Petitioner’s citations to the ’551 patent are to the background section. In the description of the invention, leakage between channels is described in in all eight embodiments, where the claimed mandatory channel is “taken into consideration.” Ex. 1001, 11:50–53. The purpose is to “prevent a situation that a wireless packet cannot be received by use of multiple wireless channels because of leakage of power from one channel to an adjacent channel.” *Id.* at 11:53–56. That leakage may occur in a “single wireless channel” lacks relevance to the purpose of the invention described and claimed in the ’551 patent.

Citations to counsel’s arguments made at oral hearing are not evidence we overlooked. *See, e.g.,* Req. Reh’g 9 (citing Paper 30, 32:24–34:7, 78:4–79:7). Similarly, to the extent the Request relies on demonstrative exhibits, it is improper as they “are not evidence and will not be relied on as evidence.” *Id.* (citing Ex. 1063 (Petitioner’s Demonstratives)); Paper 26 (Order Setting Oral Argument), 3. Oral argument and demonstratives are arguments and do not meet the standard for granting rehearing or modifying our Final Decision. Simply stated, we did accept the arguments as persuasive.

Petitioner has not shown we overlooked evidence demonstrating that “power leakage” occurs in single channel system.

*C. Patent Owner's Alleged Admissions to the European Patent Office*

Petitioner argues that “Patent Owner told the EPO: ‘The fact that, *in case of only one channel, this channel is defined as the mandatory channel* does not lead to any inconsistencies.’” Req. Reh’g 10 (citing Reply 30 (quoting Ex. 1059,<sup>6</sup> 130)). Petitioner alleges we “did not address the European prosecution history and therefore either overlooked it or, at a minimum, misapprehended its significance.” Req. Reh’g 11 (citing *In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (“[I]t is not adequate to summarize and reject arguments without explaining why the PTAB accepts the prevailing argument.”)).

Petitioner characterizes our citation to Federal Circuit authority as “cited in passing” and notes the cited authority requires consideration of the foreign prosecution. Req. Reh’g 11. In the Final Decision we agreed with Patent Owner’s argument which show we considered, but did not adopt, the statement from the European prosecution. Final Dec. 15–16. In this proceeding, we quoted and agreed with Patent Owner’s explanation that

MIMO only requires use of a single frequency channel *does not* mean the ’551 [patent] relates to single-channel systems. Similarly, the statements that Petitioner cites in the prosecution of a related European application (to the extent relevant)<sup>□</sup> only emphasize the *use* of one channel, not that only one channel was provided at the outset.

*Id.*

We accurately stated Petitioner’s argument regarding the European prosecution. Final Dec. 14–15. However, we also clearly stated we agreed with Patent Owner’s argument as sufficient explanation for what occurred in

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<sup>6</sup> Prosecution history for European Patent No. 1,667,480 B1.

the European prosecution. *Id.* at 16. Petitioner’s parsing of the Final Decision for purposes of filing the Request misrepresents what was clearly stated, i.e., that “[w]e agree with Patent Owner.” *Id.*

Petitioner has not shown we overlooked evidence of alleged admissions made by Patent Owner in the European prosecution.

*D. Reply Evidence Supporting Ground 2 (Shpak-Lundby)*

Petitioner alleges the Final Decision found that two channels augmented bandwidth but also found Petitioner “does not provide any reason to prevent transmission altogether based on the status of one of multiple channels.” Req. Reh’g 13 (quoting Final Dec. 36). Petitioner then argues “the Board overlooked Petitioners’ evidence explaining why [persons of ordinary skill in the art] desiring to augment bandwidth would have held the secondary channel in reserve so that it would always be available when needed to augment the primary channel.” *Id.* at 14 (citing Reply 2–3 (citing Pet. 41–44, 46–47); Ex. 1003 ¶¶ 125–131, 133, 140–141) (emphasis added). This is alleged by Petitioner to “unquestionabl[y]” provide a reason why persons of ordinary skill “would have ‘prevent[ed] transmission altogether based on the status of one of multiple channels,’ and the Board’s failure to consider it was an abuse of discretion that merits rehearing the Board’s patentability findings for Ground 2.” *Id.* at 3.

The sole basis for the combination presented by Petitioner was to augment bandwidth. Final Dec. 25 (citing Tr. 12:23–13:12).<sup>7</sup> Holding a channel in “reserve” as part of bandwidth augmentation is part of the same argument. The Final Decision held

We find that speed alone is an insufficient motivation to make the combination. The use of two channels instead of one “*does not*” provide any reason to prevent transmission altogether based on the status of one of multiple channels.” PO Resp. 40 (citing Ex. 2005 ¶ 119). We agree with Patent Owner and find that “this motivation would suggest that transmission should proceed whenever a channel is idle.” *Id.* The speed motivation is broad and conclusory and lacks specific evidence to support the motivation. *See Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1372 (Fed. Cir. 2000) (specific evidence beyond conclusions required to establish motivation for combination).

Final Dec. 35–36.

Petitioner argues that bandwidth would need to be increased by adding Lundby’s secondary channel which is held in reserve in case of just such a need. Req. Reh’g 3, 14–15 (citing Reply 3–8; Ex. 1003 ¶¶ 52–65; Tr. 18:4–21:2; Ex. 2063 20–21). As discussed in the above quote from the Final Decision, speed alone is not sufficient motivation and is not a problem addressed in the ’551 patent. Final Dec. 35 (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419–420 (2007) (“[A]ny need or problem known in the field of endeavor at the time of invention and *addressed by the patent* can

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<sup>7</sup> JUDGE ANDERSON: Okay. So the combination -- the reason for the combination that you're advancing here is that a person of ordinary skill would like more bandwidth and we show more channels in Lundby -- one more, but more -- and that would suggest to a person of ordinary skill in the art to modify Shpak to add additional channels.  
MR. SPEED: Correct.

provide a reason for combining the elements in the manner claimed.”). The ’551 patent is not concerned with speed but, as discussed in Section III.B above, with minimizing power leakage. *See id.*

Further, what is cited to support the Request includes argument made at the oral hearing and demonstratives. Argument is not evidence. The citations to the Williams Declaration are evidence and include Dr. Williams’ explanation of how the “mandatory channel” of the ’551 patent works and a “Summary of Claims.” Ex. 1003 ¶¶ 52–61. The primary comment relative to patentability is that implementing the mandatory channel “to utilize MIMO or join with other channels for simultaneous transmissions would have been obvious given the conventional nature of MIMO and/or multi-channel transmission techniques, as I discuss below.” *Id.* ¶ 55. As to the Shpak and Lundby combination, the only testimony is directed to Shpak where Dr. Williams testifies that “Shpak’s ‘common frequency channel’ meets the claimed ‘mandatory channel’ because it is the channel over which wireless packets must be transmitted in Shpak’s WLAN.” *Id.* ¶ 65. This position of Petitioner was analyzed in the Final Decision. Final Dec. 22–27.

Petitioner has not shown we overlooked evidence of reasons or motivation to combine Shpak and Lundby.

#### IV. CONCLUSION

For the above reasons, Petitioner has not persuaded us that we misapprehended or overlooked any fact or argument that demonstrates we should modify our Final Written Decision. Therefore, we deny Petitioner’s Request for Rehearing of Final Written Decision in this proceeding.

#### V. ORDER

In consideration of the foregoing, it is hereby:

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ORDERED that Petitioner's Request for Rehearing of Final Written Decision is *denied*.

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