

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AT&T MOBILITY LLC, AT&T SERVICES INC., ERICSSON INC.,
NOKIA OF AMERICA CORPORATION, AND T-MOBILE USA, INC.,
PETITIONERS,

v.

DAINGEAN TECHNOLOGIES LTD.,
PATENT OWNER.

CASE IPR2024-00310
PATENT 10,932,207

PATENT OWNER'S SUR-REPLY
37 C.F.R. § 42.23

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CURRENT EXHIBIT LIST¹

No.	Brief Description
1001	U.S. Patent 10,932,207 (“’207 Patent”)
1002	Prosecution History of U.S. Patent 10,932,207 (“’207 File History”)
1003	Declaration of Mark Mahon, Ph.D. (“Mahon Declaration”)
1004	Curriculum Vitae of Mark Mahon, Ph.D.
1005	US Patent Publication No. 2017/0019930 (“Lee1”)
1006	US Patent Publication No. 2010/0255847 (“Lee2”)
1007	Dahlamn et al. 4G, LTE-Advanced Pro and the Road to 5G (3rd ed. 2016)
1008	Harri Holma and Antti Toskala LTE for UMTS (2009)
1009	Nokia, “Considerations on NR RACH procedures,” R2-168013 (Nov. 2016)
1010	3GPP TS 36.331 v13.0.0 (2016) (“TS 36.331”)
1011	3GPP TS 25.214 v3.2.0 (Mar. 2000) (“TS 25.214 Release 1999”)
1012	3GPP TS 38.321 v16.1.0
2001	Declaration of Mr. Michael McBride in Support of Patent Owner’s Motion for Admission <i>Pro Hac Vice</i> of Michael McBride
2002	Expert Declaration of Dr. Karthikeyan Sundaresan
2003	U.S. Patent Publication No. 2015 0296525A1 to Kim (“Kim”)
2004	Second Expert Declaration of Dr. Karthikeyan Sundaresan
2005	For, The New Oxford American Dictionary (2nd Ed. 2005)
2006	Parameter, Webster’s New World Dictionary of Computer Terms (5th Ed. 1994).

¹ Relevant portions of exhibits may be highlighted to help the Panel find cited material.

CLAIM LISTING

	Limitation
4pre	4. A base station device comprising:
4a	control circuitry configured to control a 2-step contention based random-access procedure and a 4-step contention based random-access procedure; and
4b	reception circuitry configured to receive a physical random access channel with a random access preamble in a first step of the 2-step contention based random-access procedure or in a first step of the 4-step contention based random-access procedure; wherein
4c	transmission power for the physical random access channel is given based at least on a <u>PREAMBLE_RECEIVED_TARGET_POWER</u> ;
4d	for the 4-step contention based random access procedure, the <u>PREAMBLE_RECEIVED_TARGET_POWER</u> is given based at least on a preambleInitialReceivedTargetPower(0) and a power-RampingStep(0); and
4e	for the 2-step contention based random access procedure, the <u>PREAMBLE_RECEIVED_TARGET_POWER</u> is given based at least on a preambleInitialReceivedTargetPower(1) and a power-RampingStep(1).
5	5. The base station device according to claim 4, wherein the preamble-InitialReceivedTargetPower(0) and the preambleInitialReceived-TargetPower(1) and the powerRampingStep(0) and the power-RampingStep(1) are given by radio resource control information.
6pre	6. The base station device according to claim 4,
6a	wherein the powerRampingStep(0) is a step size for power ramping up for the <u>PREAMBLE_RECEIVED_TARGET_POWER</u> for the 4-step contention based random access procedure, and
6b	the powerRampingStep(1) is a step size for power ramping up for the <u>PREAMBLE_RECEIVED_TARGET_POWER</u> for the 2-step contention based random access procedure.
8pre	8. A communication method used for a base station device comprising:
8a	controlling a 2-step contention based random-access procedure and a 4-step contention based random-access procedure; and
8b	receiving a physical random access channel with a random access preamble in a first step of the 2-step contention based random-access procedure or in a first step of the 4-step contention based random-access procedure; wherein
8c	transmission power for the physical random access channel is given based at least on a <u>PREAMBLE_RECEIVED_TARGET_POWER</u> ;

	Limitation
8d	for the 4-step contention based random access procedure, the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitialReceivedTargetPower(0) and a power-RampingStep(0); and
8e	for the 2-step contention based random access procedure, the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitialReceivedTargetPower(1) and a power-RampingStep(1).

I. INTRODUCTION

Patent Owner does indeed dispute that each and every element of Claims 4–6 and 8 as *properly construed* is disclosed in the prior art. All the claims require different power settings based upon the number of steps, and Lee1/Lee2 neither alone nor together teach or suggest this limitation.

This construction is correct as demonstrated by (1) unrebutted expert testimony that a POSITA would understand that “for” in the claim limitations is the language of functions, such that the claimed power settings are dependent upon the number of steps; (2) the specification that reinforces “for” in the claim language means “function of” and “corresponds to”; (3) the prosecution history, which further buttresses that “for” in the claim language requires the power settings depend upon the number of steps; and (4) an uncontested showing that Petitioners had the very same understanding in the Petition.

As to (4), Petitioners put forth the strawman that Patent Owner believes the Board must adopt the Parties’ proffered claim constructions. This is not true. Patent Owner’s point is that the fact that *adversarial parties agreed* on the meaning of the limitation is compelling evidence that this heretofore uncontested position is correct. And, in conjunction with the expert testimony regarding how a POSITA understands the claims, the specification’s teachings, and the prosecution history, the Board *should not* depart from the correct meaning both Parties initially put forth.

So, Petitioners' characterization that "Patent Owner's sole justification" for this construction is "that the sentence construction [of the claims] is awkward," is untrue.

Petitioners alternatively argue that even under the Parties' pre-institution agreed-upon construction the references render the claims obvious. Specifically, Petitioners say that because Lee2—which does not contemplate a 2-step procedure—uses "relatively low transmission power" based on distance a mobile unit is from the base station, a POSITA would have "inferred" to use different power for the 2- and 4-step procedures. But Petitioners do not address what Patent Owner has already pointed out: a mobile unit is the same distance from a base station regardless of the number of steps. And Petitioners have already undercut their argument by saying Lee1 teaches to do just what they say a POSITA would not: use the *same* transmission powers for both 2- and 4-step random access procedures.

Finally, Petitioners argue that Patent Owner "opened the door" such that the Board is free to diverge from the Petition's theories. However, Petitioners point to portions of the preliminary reply where Patent Owner merely provided an overview of the '207 Patent, a recapitulation of the prosecution history, and Dr. Sundaresan's opinion that reiterated the '207 Patent's teachings. Describing the patent-at-issue is not a license to raise new arguments necessary for a *prima facie* case in a reply.

These and other issues are discussed in more depth herein.

II. CLAIM CONSTRUCTION: THE CLAIMS REQUIRE THE INITIAL POWER AND POWER RAMPING FUNCTIONS FOR “(0)” AND “(1)” CORRESPOND TO THE 4- AND 2-STEP PROCEDURE TYPES

[4c] *for the 4-step contention based random access procedure*, the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitialReceivedTargetPower(0) and a powerRampingStep(0); and

[4d] *for the 2-step contention based random access procedure*, the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitialReceivedTargetPower(1) and a powerRampingStep(1).

Petitioners have now abandoned their Ground 1 argument that Lee1 renders the claims anticipated/obvious based on a construction whereby the same preamble-InitialReceivedTargetPower and powerRampingStep for both the “(0)” and “(1)” functions satisfy the limitations. Pet. 2–3. Therefore, the only claim construction issue left is whether the different powers “for” the 2- and 4-step procedure types means the power functions “correspond” to the different steps. They do.

Petitioners start by stating that the Board “reject[ed] Patent Owner’s proposed construction” and “[n]othing has changed,” so “the Board should maintain its decision.” Reply 4. But, of course, this is incorrect. The institution was merely preliminary, *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016), and Patent Owner has since provided further evidence and argument—much of which Petitioners leave unaddressed. And the Federal Circuit “encourage[s] the Board to change its view of the merits after further development of the record [following an institution decision] if convinced its initial inclinations were wrong.” *Axonics, Inc.*

v. Medtronic, Inc., 75 F.4th 1374, 1381 n.6 (Fed. Cir. 2023) (quoting *Fanduel, Inc. v. Interactive Games LLC*, 966 F.3d 1334, 1340–41 (Fed. Cir. 2020)).

Petitioners criticize Patent Owner for explaining how a POSITA would understand the claim language in light of the specification because of the allegation that Patent Owner was importing a limitation. Reply 4–5. However, while there is “a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification,” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc) (citation omitted), as the Federal Circuit has laid out and confirmed again and again, claims nonetheless ***must be*** read in view of the specification to determine their meaning because the claims are part of an integrated written instrument and the specification is the single best guide to the meaning of a disputed term, *id.* at 1315 (quotation omitted).

Moreover, Patent Owner did address the Board’s preliminary position “head-on,” providing both intrinsic evidence (in the claims, specification, and prosecution history) and extrinsic evidence (in the form of expert testimony regarding how a POSITA understood how “for” is used when discussing functions like the ones at issue, and Petitioners’ own position regarding the References). POR 30–34 (citing Exs. 1001–02, 2004–06 & Pet.).

It is Petitioners that do not address Patent Owner’s evidence and argument “head-on.” Petitioners had the chance to depose Dr. Sundaresan,

37 C.F.R. § 42.51(b)(1)(ii), yet chose not to, leaving his testimony that a POSITA understood “for” as the language of functions meaning that “when the input is a ‘0’, it corresponds to the case of the 4-step random access procedure . . . while an input of ‘1’ corresponds to the case of the 2-step random access procedure” unrebutted. *See* Ex. 2004 ¶4; *see also* Ex. 2002 ¶¶20–25; POR 30–31.

Nor did Petitioners address or dispute that the specification uses “for” when discussing inputs to a function to mean “corresponds to.” Reply 3–9; *see also* POR 31–32. Rather, Petitioners simply point out, as Patent Owner already highlighted, that “the specification clearly discloses that the numerical input $m = 0$ is not necessarily limited to a 4-step procedure.” Reply 7; POR nn.4–5.

However, there is nothing inconsistent with the claims ***requiring*** the initial and step functions with input 0 correspond with the 4-step contention based random access procedure, while ***allowing, but not requiring***, the same functions to correspond with a “non-contention based random access procedure” as described in the specification. This is how a POSITA ***is supposed*** to read these “comprising” claims. *Regeneron Pharms., Inc. v. MERUS NV*, 864 F.3d 1343, 1352 (Fed. Cir. 2017) (“Because ‘comprise’ is inclusive or open-ended, the use of the term does not exclude unrecited elements.”) (citations omitted). The claims could have read, “for the 4-step contention based random access procedure and the non-contention procedure . . .” and “0” would then be set dependent upon either type, but the claims

do not so read.

Petitioners argue that “the Challenged Claims’ use of ‘0’ and ‘1’ indicates, at most, that functions with an input of ‘0’ are different than functions with an input of ‘1,’” Reply 5; that “[o]n their face, these inputs are not limited to any particular type of random access procedure, much less the 2-step and 4-step random access procedures that Patent Owner seeks to read into them,” *id.* 7; and “if ‘preamble-InitialReceivedTargetPower(0)’ and ‘powerRampingStep(0)’ are themselves limited to ‘the 4-step procedure’ (as Patent Owner contends), then the claim phrase ‘for the 4-step contention based random access procedure’ is redundant,” *id.* 5–6. But Petitioners mischaracterize Patent Owner’s position and, therefore, their arguments miss the pertinent language completely. Patent Owner contends that it is the “for the 4-step contention based random access procedure” and “for the 2-step contention based random access procedure” that indicates the following functions correspond to the given steps, not the “0” and “1” on their own.

And considering Patent Owner’s actual position, there is no “superfluous language.” *Cf.* Reply 6. For example, without the phrase “for the 2/4-step contention based random access procedure,” Limitations 4c–e would read:

4c	transmission power for the physical random access channel is given based at least on a PREAMBLE_ - RECEIVED TARGET POWER;
4d	the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitial-ReceivedTargetPower(0) and a powerRamping-Step(0); and
4e	the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitial-ReceivedTargetPower(1) and a powerRamping-Step(1).

While such claim language without the introductory clauses is incomprehensible at worst, and ambiguous at best, the omission of the language clearly illustrates that the “for the 2/4 step . . .” language is necessary and does indeed specify that “0” corresponds to the 2-step and “1” corresponds to the 4-step procedures, respectively.

Petitioners say that “if the claims actually used the same language as the specification, then Patent Owner would point to the claims themselves to support its proposed constructions.” Reply 6. The specification *does indeed use the same introductory clause language to note that the value of “m” is a function of the steps:*

preambleInitialReceivedTarget Power (m) is configured by transmission bandwidth for the PRACH transmitted in the higher layers (RRC) for m=0 and m=1. **For 4 step contention based random access procedure** and non contention based random access procedure **then m = 0**, and **for 2 step contention based random access procedure then m = 1**.

Ex. 1001 29:40–45 (emphasis added). And Patent Owner’s position *is that* “the claim language themselves” support Patent Owner’s construction, but Patent Owner follows the Federal Circuit mandate not to simply view the claims in isolation but to interpret the language considering the single best guide to the meaning of a disputed term, the specification. *Phillips*, 415 F.3d at 1315.

The best Petitioners can say regarding the fact that the Examiner construed the limitations under the broadest reasonable interpretation (“BRI”) standard² in the same manner as Patent Owner does and Petitioner did in its Petition is that the Examiner noted that *a reference* was missing a limitation rather than discussing the claim limitation *directly*. Reply 8. But this does not lessen that the Examiner’s position supports Patent Owner’s construction, because when an examiner says that a reference does not disclose x, this means that the claims require x. *See, e.g., Bell*

² And the meaning under the *Phillips* standard cannot be broader than the BRI. *In re CSB-Sys. Int’l, Inc.*, 832 F.3d 1335, 1341 (Fed. Cir. 2016).

Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc., 262 F.3d 1258, 1273 (Fed. Cir. 2001) (scrutinizing an examiner's statements ***regarding what a prior art reference taught*** to determine how the examiner understood the claim terms); *see also Phillips*, 415 F.3d at 1317 ("Like the specification, the prosecution history provides evidence of how the PTO . . . understood the patent.").

Second, Petitioners engage in some questionable quotation practice to imply that at the time of the Examiner's statement the claims did not have the "(0)" and "(1)" function inputs. Pet. 8. (citing Ex. 1002.1478³ as "Jung does not disclose the transmission power (PREAMBLE_RECEIVED_TARGET_POWER) for the a [sic] four step contention based RACH procedure associated with preambleInitialReceivedTargetPower . . .") ("sic" in original). But the full sentence reads:

Jung does not disclose the transmission power (PREAMBLE_RECEIVED_TARGET_POWER) for the a four step contention based RACH procedure associated with preambleInitialReceivedTargetPower and a powerRampingStep(0) and the transmission power (PREAMBLE_RECEIVED_TARGET_POWER) for the two-step contention based RACH

³ Petitioners use the PDF page numbering. This corresponds to *Bates* Number ending 4039.

procedure associated with preambleInitialReceived-TargetPower and a powerRampingStep(1).

Ex. 1002 at 4039 (emphasis added). So, while not all power parameters were functions at this time, the “step” was, and the Examiner *did understand* that the function parameters were “based upon”/“associated with” the number of steps. *See also id.* (noting “Kim discloses different power ramping step (powerRampingStep(0) and powerRampingStep(1)) *for the* four-step contention based RACH procedure and the two-step contention free RACH procedure”)) (different emphasis); *accord* Reply 8 (“[T]he Examiner used the phrase ‘based on,’ which tracks the language of the issued claims.”).

Petitioners cite case law that an “examiner’s unilateral remarks alone do not affect the scope of the claim,” Reply 8–9; however, Patent Owner does not rely upon the Examiner’s remarks alone. The Examiner’s explanation of the required limitations is only one of many pieces of evidence that Patent Owner presents, including Patent Owner’s response to the Examiner’s position, *see* POR 17, as well as the claim language, the specification, and expert testimony.

Finally, Petitioners do not deny that it was their and their expert’s position in the Petition that “(m)” in the ’207 Patent “corresponds to” types of random access when pointing out where the limitation was in the prior art. *See* Pet. 41 (citing Ex. 1003 ¶92) (explaining that Lee 2 discloses the limitation because “ $n = 1$

corresponds to a first type of random access, $n = 2$ *corresponds to* a second type of random access, etc.)” (emphasis added). Indeed, while “Petitioners [have] [a]dopt[ed] the Board’s [i]nterpretation of the [c]laim [l]anguage” that the initial power and power ramping functions are different for the 4-step and 2-step procedures, Pet. § II(A), Petitioners have not done so for the issue of whether “for” the 2- and 4-step means the procedures “correspond to” the different steps, *id.* 3–9. In fact, Petitioners refer to this construction as “*the Board’s*,” *id.* at 3, indicating that Petitioners *still agree* with Patent Owner, and are improperly advocating for a claim construction they are not putting forth. *See Hologic, Inc. v. Enzo Life Sciences, Inc.*, IPR2018-00019-21, at 2 (PTAB Nov. 28, 2018) (explaining that a petitioner cannot advance a construction “with which it expressly disagrees”).

Taken together, the evidence compels that the correct meaning of these limitations is that the claims require the initial power and power ramping functions for “(0)” and “(1)” *correspond to* the 4- and 2-step procedure types. And, as now discussed, the References alone or together do not teach this limitation.

III. PETITIONERS' PRIOR ART REFERENCES FAIL TO RENDER OBVIOUS ANY CHALLENGED CLAIM AS FAILING TO TEACH OR SUGGEST DIFFERENT INITIAL/RAMPING POWER FUNCTIONS “(0)” AND “(1)” FOR THE 4- AND 2-STEP PROCEDURE TYPES

[4c] for the 4-step contention based random access procedure, the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitialReceivedTargetPower(0) and a powerRampingStep(0); and

[4d] for the 2-step contention based random access procedure, the PREAMBLE_RECEIVED_TARGET_POWER is given based at least on a preambleInitialReceivedTargetPower(1) and a powerRampingStep(1).

Petitioners are correct that for these limitations Patent Owner's argument regards the proper claim construction of what it means to be “for the [4/2]-step contention based random access procedure,” but say that this is “inapposite to the merits of the obviousness inquiry.” Pet. 11. Claim construction is always “apposite” to the merits of the obviousness inquiry, “because an improper claim construction may distort the . . . validity analyses.” *Fiber Optic Designs, Inc. v. Seasonal Specialties, LLC*, 172 F. App'x 995, 999 (Fed. Cir. 2006). This is why a claim “must be construed before determining its validity.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 997 n.7 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996).

In a continuing pattern, Petitioners misstate that Patent Owner's position is that the Board is “bound to adopt either party's preferred articulated construction.” Pet. 11. This is not Patent Owner's position. Patent Owner is pointing out that when *adversarial parties and their experts agree on a construction*, as here, and then one

party changes tack and argues against the prior position, “no reasonable fact finder would refuse to consider evidence of [such] inconsistent[y]” and “any such inconsistencies would likely bear on . . . overall credibility.” *Ultratec, Inc. v. CaptionCall LLC*, 872 F.3d 1267, 1273 (Fed. Cir. 2017) (discussing an expert’s testimony and credibility, but the premise is equally applicable to a party). And, in conjunction with the unrebutted expert testimony regarding how a POSITA understands the claims, the specification’s teachings, and the prosecution history, the Board ***should not*** depart from the correct meaning both Parties put forth. *See* § II *supra*.

Petitioners argue that the References render the claims obvious even under the pre-institution agreed-upon construction, because “Lee2 expressly teaches that, in at least some cases, it is beneficial to use a relatively low transmission power for the conventional 4-step procedure,” and, therefore, “it would have been obvious for a POSITA to use elevated transmission power settings for the 2-step procedure to reduce latency as much as possible while, at the same time, using lower transmission power settings for the 4-step procedure.” Reply 13. But this conclusion does not follow from the premise.

Yes, Lee2 teaches that it is beneficial to use lower initial transmission power ***based upon distance***. *See, e.g.,* Ex. 1006 [0010] (“If a user equipment and a base station ***are located near each other***, the user equipment can transmit a preamble

to the base station *using a relatively low level of transmission power*”) (emphasis added). But Lee2 does not disclose a 2-step procedure, Inst. Dec. 25, and Petitioners have not put forth any argument or rationale why Lee1’s 2-step procedure would not also benefit from the same “relatively low power transmission” based on distance, *see* POR at 41–42.

Patent Owner is not trying to “negate an obvious combination of Lee1 and Lee2 by asserting that it is possible to combine these references in alternative ways.” Reply 13. Patent Owner is pointing out that Petitioners always have the burden to show why a POSITA *would have* combined the references to meet the claim language, and Petitioners have not done so. *See In re Magnum Oil Tools Int’l, Ltd*, 829 F.3d 1364, 1377–78 (Fed. Cir. 2016) (reversing where the “Board required [Patent Owner] to rebut Petitioner[’s] assertions that a skilled artisan would have been motivated to combine the prior art references, without first requiring [Petitioner] to provide evidence to support its assertions”).

Even now, the best Petitioners can do is to say that their expert said there are “trade-offs” between using high and low power initial transmission,” Reply 14 (citing Ex. 1003 ¶¶46–49), and to put forth attorney argument that “a POSITA would have inferred that using ‘the same relatively high transmission power’ for both 2- and 4-step procedures (i.e., *all* random access procedures) is not optimal,” *id.* (citing Lee2 at [0109]). First, Patent Owner is not arguing that Lee2 says to use the same

relatively high transmission power for “*all* random access procedures”; just that Lee2 says to choose the power settings based upon distance, and a phone’s distance from the base station is the same regardless of the number of steps. *See* POR at 42. Petitioners do not deny or address this fact.

Second, Petitioners’ interpretation of its own primary reference, Lee1—the only one of Petitioners References that actually discloses a 2-step procedure—***does exactly what Petitioners now say a POSITA would not do***: use the *same* transmission powers for both 2- and 4-step random access procedures. Pet. 29–31 (arguing that Lee1 would use ***the same*** preambleInitialReceivedTargetPower and a powerRampingStep for ***both*** types of random access procedure); *see also* Ex. 1003 ¶¶75–77 (same). So, Petitioners’ interpretation of Lee1 supports using the same power for both steps, and Lee2 supports that both number of steps would benefit from the same power based upon the distance from the base station. *See Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1069 (Fed. Cir. 2018) (explaining that the Board must consider a reference “for all it taught, [including] disclosures that diverged and taught away from the invention at hand”) (citation and quotation omitted).

Petitioners provide one paragraph in support of the Board’s suggestion that Lee2’s use of RSRP would lead to a modification of Lee1 to use different power settings for the 2-step and 4-step contention based procedure. Reply 14–15. Here,

Petitioner had the opportunity to show where Petitioner made this argument in the Petition, but failed to do so, citing not a single sentence in the Petition or the Petition's accompanying expert report. *Id.*

Instead, Petitioners first cite to Lee2 at paragraphs 63 and 71–74, paragraphs not referenced in the Petition or the Petition's accompanying expert report. *See generally* Pet. and Ex. 1003; *see also* Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48767 (Aug. 14, 2012) (“Examples of indications that a new issue has been raised in a reply include new evidence necessary to make out a *prima facie* case for the . . . unpatentability of an original . . . claim, and new evidence that could have been presented in a prior filing.”).

Then Petitioners cite to the '207 Patent that cannot be used as a roadmap against itself. *See, e.g., Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1379 (Fed. Cir. 2012) (explaining that “consideration of simple technology is often the most difficult because, once the problem and solution appear together in the patent disclosure, the advance seems self-evident . . . [so] the proper analysis requires a form of amnesia that ‘forgets’ the invention and analyzes the prior art and understanding of the problem at the date of invention”)).

Then Petitioners cite to Patent Owner's Response at 14 discussing neither of Petitioners' prior art references and explaining how the Examiner found despite using RSRP to switch the number of steps there was *no* teaching to use different

power ramping for different steps. *Accord* Inst. Dec. at 23 (“According to our review of the prosecution history . . . the Examiner determined that none of the cited prior art taught or suggested *different* power ramping for the 4-step and 2-step contention-based procedures.”).

In response to Patent Owner pointing out that Petitioners never even mentioned “RSRP” in the Petition—a fact that Petitioners do not dispute, Reply 15–16—Petitioners say “the mere fact that the Board did not use the exact language of the petition in the final written decision does not mean it changed theories in a manner inconsistent with the APA and our case law,” *id.* But Patent Owner is not quibbling over “exact language.” Here, Petitioner did not make the “RSRP” argument using *any language*, and Petitioner *has* now in its Reply presented a new “RSRP” theory.

Petitioners say that *Sirona Dental* supports that the Board is not limited to the arguments in the Petition. Reply 16 (citing *Sirona Dental Sys. v. Institut Straumann AG*, 892 F.3d 1349 (Fed. Cir. 2018)). This statement is indefensible, considering that *Sirona Dental* explains Supreme Court precedence as so:

An inter partes review must proceed “in accordance with or in conformance to the petition.” *SAS Inst., Inc. v. Iancu*, ___ U.S. ___, 138 S.Ct. 1348, 1356, 200 L.Ed.2d 695 (2018) (internal quotations omitted). “Nothing suggests the Director enjoys a license to

depart from the petition and institute a *different* inter partes review of his own design.” *Id.* (emphasis in original). “The rest of the statute confirms, too, that the petitioner's petition, not the Director’s discretion, is supposed to guide the life of the litigation.” *Id.* “[T]he statute tells us that the petitioner’s contentions, not the Director's discretion, define the scope of the litigation all the way from institution through to conclusion.” *Id.* at 1357. It would thus not be proper for the Board to deviate from the grounds in the petition and raise its own obviousness theory, as [Patent Owner] contends.

Id. at 1356. What the *Sirona Dental* court found was that the Board ***did not*** deviate from the obviousness grounds in the petition because it, for example, cited to the same portions of the prior art—unlike here—not that the Board ***could*** deviate from the obvious grounds in the petition. *Id.*

Petitioners suggest that any combination of the same references is the “same obviousness theory,” Pet. 16, but changing ***why*** the references would be combined is indeed a new and impermissible theory. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1370 (Fed. Cir. 2016) (“[W]e find that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because [Petitioner] relied on an entirely new rationale to explain ***why one of skill in the art would have been motivated to combine*** [the references].”) (emphasis added).

Petitioners alternatively argue that the “Board’s discussion of RSRP is akin to

the introduction of new evidence,” Reply 16 (citing *Genzyme Therapeutic Prod. Ltd. P’ship v. Biomarin Pharm. Inc.*, 825 F.3d 1360, 1366 (Fed. Cir. 2016)), or evidence in reply to a response, *id.* at 17 (citing *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1380 (Fed. Cir. 2023)). However, in *Genzyme*, petitioner was just citing to new references to show “the state of the art at the time of the invention,” not for a new theory of unpatentability. 825 F.3d at 1368–69. And in *Axonics*, “the specific question presented [was] whether, where a patent owner offers a new claim construction for the first time in its response after the institution decision, a petitioner may introduce new arguments and evidence in reply under the newly proposed claim construction.” 75 F.4th at 1380. But here Petitioners are not marshalling new evidence to show the state of the art or otherwise for support of an “RSRP” theory presented in the Petition, and Petitioners are not responding to a new claim construction argument Patent Owner put forth in the Response.⁴ As set forth above, Petitioners are proffering a new motivation to combine theory Petitioners did not previously present.

Finally, Petitioners argue that Patent Owner “opened the door” by merely

⁴ Indeed, Petitioner anticipated that Patent Owner would argue that the “(0)” and “(1)” powers are different, *see, e.g.*, Pet. at 31, and, as noted above, all parties understood that “(0)” and “(1)” corresponded to the number of steps, *see id.* at 41 (citing Ex. 1003 ¶92).

providing an overview of the '207 Patent, the prosecution history, and providing Dr. Sundaresan's opinion that reiterated the '207 Patent's teachings, and that this means the Board "must take account of all the evidence of record" (read: is free to diverge from the Petition's theories). Reply 17 (citing the Preliminary Response at 10 and 14; Ex. 2002 ¶27; and *Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1325 (Fed. Cir. 2017)).

First, Patent Owner simply said that the '207 Patent and the references cited during prosecution indicate that RSRP can be used to choose when to use a 2- and 4-step procedure. POPR at 10 ("Specifically, '[i]n a case that the measured RSRP does not exceed the threshold of the RSRP, the terminal apparatus 1 may initiate the 4 step contention based random access procedure [whereas] [i]n a case that the measured RSRP exceeds the threshold of the RSRP, the terminal apparatus 1 may initiate the 2 step contention based random access procedure.") (citing Ex. 1001 at 16:66–17:5) and 14 ("Examiner noted that Akkarakaran and Jung 'discloses to select a four step contention based RACH procedure when the RSRP is below a threshold and switch to a two step contention based RACH procedure when the RSRP is above a threshold.'") (citing Ex. 1002 at 4038–40). And Dr. Sundaresan reiterated the '207 Patent's teachings that "RSRP does relate to decoding capability and hence is employed for making the decision of 2-step versus 4-step in the '207 Patent." Ex. 2002 ¶27. Such anodyne descriptions are not a license for Petitioners to put forth

new theories in their Reply.

Second, *Aqua Products* concerned a situation where Patent Owner was attempting to amend claims, and so in this amendment context the Federal Circuit said it was “a fairly uncontroversial proposition” that the Board should consider the entirety of the IPR record when considering proposed amendments. 872 F.3d at 1325–26. In an amendment process, the Board is free from normal IPR constraints, such as having the ability to consider written description problems and subject matter eligibility. *See e.g., Broadcom Corp. v. Wi-Fi One, LLC*, IPR2013-00636-60, at 30 (PTAB Mar. 6, 2015); *Uniloc 2017 LLC v. Hulu, LLC*, 966 F.3d 1295, 1307 (Fed. Cir. 2020). Indeed, *Aqua Products* noted that “today’s judgment is narrow.” *Id.* at 1296. Moreover, *Aqua Products* issued before the Supreme Court issued *SAS* that the Federal Circuit said stands for the proposition that it would “not be proper for the Board to deviate from the grounds in the petition and raise its own obviousness theory.” *Sirona Dental*, 892 F.3d at 1356.

In sum, under the correct claim construction, Petitioners have not shown a POSITA would have found it obvious to modify Lee1 in view of Lee2 to use different power parameters for the 2- and 4-step procedures.

IV. CONCLUSION

A POSITA reading the claims in light of the specification at the Effective Priority Date would have understood that the limitation “for the [4/2]-step contention

based random access procedure” means that the following “(0)” and “(1)” “correspond to” the number of steps. Petitioners have not shown this limitation was obvious because, although Lee2 teaches use of relatively low transmission power when user equipment is close to a base station, this is no reason to use *different* power ramping for 4-step and 2-step contention-based procedures. Therefore, Patent Owner asks that the Board find Petitioners have not met their burden to show the Challenged Claims are obvious.

Dated: April 10, 2025

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Per § 42.24(a)–(b) the undersigned certifies that the number of words in the paper, PATENT OWNER’S SUR-REPLY, is:

4,908

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Dated: April 10, 2025

/R. Allan Bullwinkel/
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CERTIFICATE OF SERVICE

The undersigned certifies that on the tenth day of April, 2025, a complete and entire copy of the foregoing “PATENT OWNER’S SUR-REPLY,” including exhibits, if any, was served on the following counsel of record via email per Petitioners’ consent to electronic service. *See* Paper 2 at 2.

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