

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS INC.,
Petitioner,

v.

PANTECH WIRELESS LLC,
Patent Owner.

IPR2023-01270
Patent 10,869,247 B1

Before THU A. DANG, DANIEL J. GALLIGAN, and
CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

LG Electronics Inc. (“Petitioner”) filed a Petition for *inter partes* review (Paper 2 (“Pet.” or “Petition”)) challenging claims 1–20 of U.S. Patent 10,869,247 B1 (Ex. 1001 (the “’247 patent”)). Pantech Wireless LLC (“Patent Owner”) filed a Preliminary Response. Paper 22 (“Prelim. Resp.”). Petitioner filed an authorized Reply to Patent Owner’s Preliminary Response (Paper 24), and Patent Owner filed a Sur-reply to Petitioner’s Preliminary Reply (Paper 26).

Under 37 C.F.R. § 42.4(a), we have authority to determine whether to institute review. The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons explained below, we institute an *inter partes* review of all challenged claims on all grounds raised in the Petition.

B. Related Matters

As required by 37 C.F.R. § 42.8(b)(2), the parties identify various related matters. Pet. 4; Paper 3 at 1.

C. Real Parties in Interest

Petitioner identifies itself and LG Electronics U.S.A., Inc. as the real parties in interest. Pet. 4. Patent Owner identifies itself and Pantech Corporation as the real parties in interest. Paper 3 at 1.

D. Illustrative Claim of the '247 Patent

Claim 1 is reproduced below with Petitioner's limitation identifiers in brackets. *See* Pet. ix.

1. A wireless transmit/receive unit (WTRU) comprising:
 - [1.a] at least one transceiver; and
 - [1.b] a processor;
 - [1.c] wherein the at least one transceiver and the processor are configured to cause the WTRU to: transmit, using a hybrid automatic repeat request (H-ARQ) process, a data block to a base station;
 - [1.d] receive uplink scheduling information from the base station, wherein the uplink scheduling information includes a H-ARQ process identification for the H-ARQ process; and
 - [1.e] determine whether to retransmit the data block based on the received uplink scheduling information and not based on whether the WTRU has received a negative acknowledgement (NACK) from the base station.

E. Asserted Grounds of Unpatentability

Petitioner presents the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 2, 8, 11, 12, 18	102(a), (b) ¹	Lucent ²
1, 2, 8, 11, 12, 18	103(a)	Lucent
1, 2, 8, 11, 12, 18	103(a)	Lucent, Liu ³

¹ The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. Petitioner asserts unpatentability under pre-AIA §§ 102 and 103. Pet. 6–8.

² Document titled "Signalling for H-ARQ Operation" (Ex. 1005). Petitioner presents un rebutted evidence that Lucent was made available to the public no later than February 2003. Ex. 1004 ¶¶ 63–76.

³ US 20050048920 A1, filed Aug. 26, 2003, published Mar. 3, 2005 (Ex. 1007).

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
9, 10, 19, 20	103(a)	Lucent, Das ⁴
9, 10, 19, 20	103(a)	Lucent, Liu, Das
1–7, 11–17	103(a)	Kuchibhotla, ⁵ Liu
8, 18	103(a)	Kuchibhotla, Liu, Lucent
9, 10, 19, 20	103(a)	Kuchibhotla, Liu, Lucent, Das
8–14	103(a)	Lucent, Rathonyi ⁶
8–14	103(a)	Lucent, Liu, Rathonyi
8–14	103(a)	Lucent, Das, Rathonyi
8–14	103(a)	Lucent, Liu, Das, Rathonyi
8–14	103(a)	Kuchibhotla, Liu, Rathonyi
8–14	103(a)	Kuchibhotla, Liu, Lucent, Rathonyi
8–14	103(a)	Kuchibhotla, Liu, Lucent, Das, Rathonyi

II. ANALYSIS

A. Discretionary Denial

1. 35 U.S.C. § 314(a)

Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 314(a) because the factors identified in *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential), weigh in favor of denying institution in view of the district court litigation. Prelim. Resp. 16–27.

A Memorandum from Director Vidal titled *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District*

⁴ US 20030076783 A1, filed Oct. 19, 2001, published Apr. 24, 2003 (Ex. 1009).

⁵ US 2004/0223507 A1, filed May 7, 2003, published Nov. 11, 2004 (Ex. 1006).

⁶ US 6,359,877 B1, filed July 21, 1998, issued Mar. 19, 2002 (Ex. 1008).

Court Litigation (USPTO June 21, 2022) (“Interim Procedure”)⁷ provides that “the PTAB will not deny institution of an IPR or PGR under *Fintiv* . . . where a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition.” Interim Procedure 9. Petitioner has submitted such a stipulation. Ex. 1300; Paper 24 at 1. Thus, we do *not* exercise discretion to deny institution under 35 U.S.C. § 314(a).

2. 35 U.S.C. § 325(d)

Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 325(d) because, according to Patent Owner, the same or substantially the same prior art previously was presented to the Office. Prelim. Resp. 27–33; Paper 26 at 1–3. For the reasons stated below, we decline to exercise discretion to deny on this basis.

Section 325 of Title 35 of the United States Code addresses the relationship of proceedings before the Board with other proceedings in the Office, and provides, in part, that

[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31,^[8] the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.

In evaluating arguments under Section 325(d), we use a two-part framework, determining, first, “whether the same or substantially the same art previously was presented to the Office or whether the same or

⁷ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

⁸ Chapter 31 (35 U.S.C. §§ 311–319) relates to *inter partes* review.

substantially the same arguments previously were presented to the Office.”
Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH,
IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). If either
condition of the first part of the framework is satisfied, we then determine
“whether the petitioner has demonstrated that the Office erred in a manner
material to the patentability of challenged claims.” *Id.*

When deciding whether to exercise our discretion under Section
325(d) in view of the *Advanced Bionics* framework, we weigh the following
nonexclusive factors:

- (a) the similarities and material differences between the asserted references and the prior art involved during prosecution;
- (b) the cumulative nature of the asserted references and the prior art evaluated during prosecution;
- (c) the extent to which the asserted references were evaluated during prosecution, including whether a rejection rested on any reference;
- (d) the extent of overlap between the arguments made during prosecution and Petitioner’s reliance on the asserted references or Patent Owner’s contentions concerning them;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in analyzing the asserted references; and
- (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the asserted references or arguments.

See Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (formatting altered); *see also Advanced Bionics*, Paper 6 at 9–11 (noting that the Board considers the *Becton, Dickinson* factors in an *Advanced Bionics* analysis).

Patent Owner argues that the first part of the *Advanced Bionics* framework is met because Kuchibhotla and Liu were cited in an Information Disclosure Statement (IDS) and because “the relevant teachings of Lucent are substantively similar to those of Khan (Ex. 1010).” Prelim. Resp. 28–29. We agree with Patent Owner that the citation of Kuchibhotla and Liu satisfies the first part of the *Advanced Bionics* framework. *See Advanced Bionics*, Paper 6 at 7–8 (“Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.”); *see also* Ex. 1002, 34 (IDS listing Kuchibhotla), 36 (IDS listing Liu); Paper 24 at 2–3 (Petitioner’s acknowledgement that Kuchibhotla and Liu were cited).

In the second part of the *Advanced Bionics* framework, we consider *Becton, Dickinson* factors (c), (e), and (f) to determine whether Petitioner has demonstrated a material error by the Office. *Advanced Bionics*, Paper 6 at 10. The Examiner did not substantively discuss Kuchibhotla and Liu and, therefore, factor (c) (the extent to which the asserted references were evaluated during prosecution, including whether a rejection rested on any reference) weighs against denying institution. Furthermore, as explained below in § II.F.1, we agree, on this record, with Petitioner’s contentions as to disputed limitation 1.e and, therefore, determine that factor (f) (the extent to which additional evidence and facts presented in the petition warrant reconsideration of the asserted references or arguments) weighs against denying institution.

As for the Lucent grounds, Patent Owner argues that “the relevant teachings of Lucent are substantively similar to those of Khan (Ex. 1010), which was relied upon by the Examiner during initial rejections of the ’247

Patent's claims." Prelim. Resp. 29 (citing Ex. 1002, 421, 471, 524). We have reviewed the '247 patent file history (Ex. 1002), and we do not see any claim rejections. The application for the '247 patent was filed on August 31, 2020, and the Examiner issued a notice of allowance on October 15, 2020. Ex. 1002, 88. Furthermore, Patent Owner's citations to pages 421, 471, and 524 in Exhibit 1002 appear to be in error as Exhibit 1002 has only 189 pages.

Patent Owner contends that Khan "teaches that communications between a Node-B and UE should include a ACK/NACK channel to support HARQ operation, along with encoded feedback information to improve ACK/NACK reliability," which, according to Patent Owner, are "substantively the same teachings" as in Lucent. Prelim. Resp. 30 (citing Ex. 1010 ¶¶ 2, 3). Patent Owner's characterization of Khan is incorrect. In its "Background of the Invention" section, Khan discloses the following:

In order to support the HARQ operation on the forward link, an acknowledgement/negative-acknowledgement (ACK/NACK) channel is needed on the reverse link in order to provide feedback about whether a packet was successfully or unsuccessfully received. Similarly, for HARQ operation on the reverse link, an ACK/NACK channel is used on the forward link in order to support the reverse link HARQ operation.

Ex. 1010 ¶ 2. In the very next paragraph summarizing the invention, Khan discloses the following: "In the method according to the present invention, the forward control channel for scheduling transmission by mobiles over the reverse link is also used to supply acknowledgement information regarding packets sent by those mobiles on the reverse link. *This eliminates the need for a separate ACK/NACK channel.*" Ex. 1010 ¶ 3 (emphasis added).

Elsewhere, Khan discloses that "the methodology of the present invention eliminates the need for a separate ACK/NACK channel." Ex. 1010 ¶ 29.

This disclosure contradicts Patent Owner’s argument that Khan “teaches that communications between a Node-B and UE should include a ACK/NACK channel.” *See* Prelim. Resp. 30. If Khan’s and Lucent’s teachings are substantively the same, as Patent Owner argues (Prelim. Resp. 29–30), then the lack of a NACK channel in both tends to support Petitioner’s contentions that Lucent discloses determining whether to retransmit based on the New Data Indicator and not based on a NACK. *See* Pet. 25–26.

For the reasons discussed above, we determine that the Office erred in a manner material to the patentability of the challenged claims, and we do not deny institution under 35 U.S.C. § 325(d).

B. Principles of Law

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). Although the elements must be arranged or combined in the same way as in the claim, “the reference need not satisfy an *ipsissimis verbis* test,” i.e., terminology need not be identical. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (citing *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990)).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) any secondary

considerations, if in evidence.⁹ *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

C. Level of Ordinary Skill in the Art

Petitioner argues that a person of ordinary skill in the art “would have had a bachelor’s degree in electrical or computer engineering, computer science, or the equivalent thereof, and at least two years of experience with wireless communication systems.” Pet. 13 (citing Ex. 1003 ¶¶ 38–41). Petitioner also contends that “[m]ore education can supplement practical experience, and vice-versa.” Pet. 13 (citing Ex. 1003 ¶¶ 38–41).

Patent Owner does not comment on the level of ordinary skill in the Preliminary Response.

To the extent necessary, and for purposes of this Decision, we accept the uncontested assessment offered by Petitioner, which appears consistent with the ’247 patent and the asserted prior art, except that we delete the qualifier “at least” to eliminate vagueness as to the amount of experience. The qualifier expands the range indefinitely without an upper bound, and thus precludes a meaningful indication of the level of ordinary skill in the art.

D. Claim Construction

The parties agree that the claims should be accorded their plain and ordinary meaning. Pet. 13–14; Prelim. Resp. 14. On this record, we determine that no terms need express construction. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent

⁹ Patent Owner has not introduced secondary considerations evidence.

necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

The parties may wish to address the interpretation of limitation 1.e during the trial for the reasons discussed below in § II.E.

*E. Alleged Unpatentability Based on Lucent
(Claims 1, 2, 8, 11, 12, 18)*

Petitioner asserts that claims 1, 2, 8, 11, 12, and 18 are unpatentable as anticipated by or obvious over Lucent. Pet. 8, 16–31. Patent Owner opposes. Prelim. Resp. 33–35.

Lucent’s Figure 2 is below.

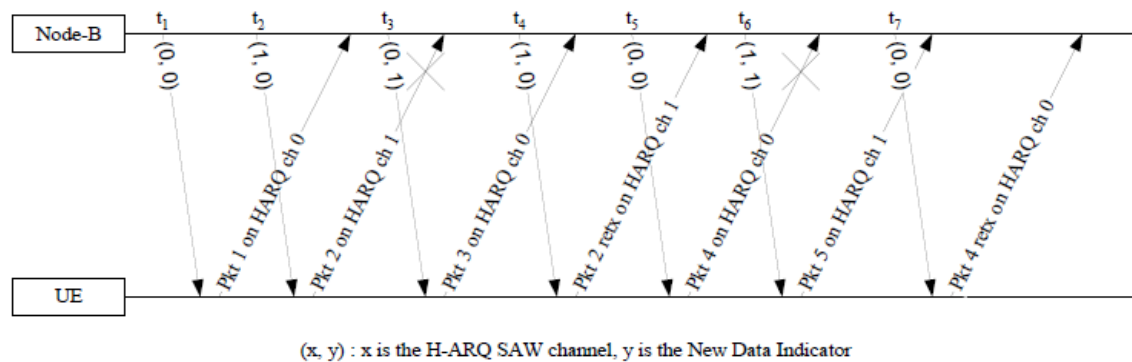


Figure 2. Implicit signalling of H-ARQ ACK/NACKs by Node-B

Ex. 1005 at 4. Lucent’s Figure 2 above is captioned “Implicit signalling of H-ARQ ACK/NACKs by Node-B.” Ex. 1005 at 4. Figure 2 depicts Node-B sending “schedule grant message[s]” at times t_1 – t_7 , which are indicated with down arrows and 2 bits in parentheses. Ex. 1005 at 4–5. The first bit indicates the H-ARQ channel, and the second bit is a New Data Indicator (NDI) whose value “implies a NACK” if it “has not changed compared to the value in the previous received transmission of a given H-ARQ process.” Ex. 1005 at 4. Figure 2 also shows data transmissions from UE to Node-B. Ex. 1005 at 4.

Petitioner argues that UE is a “wireless transmit/receive unit (WTRU)” that has a transceiver and a processor, as recited in the preamble and limitations 1.a and 1.b. Pet. 18–20. Petitioner argues that Figure 2’s disclosure of H-ARQ transmissions from UE to Node-B describes limitation 1.c (“transmit, using a hybrid automatic repeat request (HARQ) process, a data block to a base station”). Pet. 20–22. Petitioner argues that a “schedule grant message” in Lucent is “scheduling information” and that the H-ARQ channel included in the message “is a H-ARQ process identification because it identifies which H-ARQ process for which to retransmit a previously transmitted packet.” Pet. 22–23 (citing Ex. 1005 at 4–5; Ex. 1003 ¶¶ 76–79). Patent Owner does not dispute Petitioner’s showing for the preamble and limitations 1.a–1.d. *See* Prelim. Resp. 33–35 (disputing contentions based on Lucent for limitation 1.e). We find Petitioner’s contentions for the preamble and these limitations sufficiently persuasive on this record, and, thus, we need not decide whether the preamble is limiting.

The disputed issue between the parties concerns the limitation of claim 1 reciting “determine whether to retransmit the data block based on the received uplink scheduling information and not based on whether the WTRU has received a negative acknowledgement (NACK) from the base station” (1.e). Petitioner argues that “Lucent discloses that the UE determines whether to retransmit the data block based on the **NDI** included in the received scheduled grant message and not based on whether the UE received a **NACK** from the Node-B.” Pet. 26 (citing Ex. 1005 at 4–5, Fig. 2; Ex. 1003 ¶¶ 82–84).¹⁰ Patent Owner counters that “Lucent is directed to a method of encoding ACK/NACK by using New Data Indicator (NDI) bits”

¹⁰ We omit Petitioner’s emphasis of reference names.

and, therefore, that Lucent does disclose using a NACK to determine retransmission. Pet. 34 (citing Ex. 1005 at 2).

On this record, we find Petitioner's contentions sufficiently persuasive because Lucent discloses that an unchanged value of the NDI in the schedule grant message "implies a NACK," which tells the UE to retransmit the data. Ex. 1005 at 4. More particularly, Lucent discloses the following with reference to Figure 2:

The schedule grant message transmitted by the Node-B to the UE at time t_4 uses the same values for NDI and H-ARQ channel as at time t_2 , which implicitly indicates to the UE that the second packet was received in error. In response, therefore, the UE retransmits the second packet.

Ex. 1005 at 4–5. Thus, the disclosure of Lucent uses scheduling information to signal to the UE that data was not received correctly, prompting a transmission without an explicit NACK message.

During the trial, the parties may wish to address the interpretation of limitation 1.e. Patent Owner's position appears to be that a NACK is anything that indicates that data were received in error and require retransmission. *See* Prelim. Resp. 34–35. On this record, we do not agree with this interpretation because the claim requires "determin[ing] whether to retransmit the data block based on the received uplink scheduling information," which means that something in the scheduling information indicates that data were received in error and require retransmission. If anything that indicates the error is a NACK, then the determination would be "based on whether the WTRU has received a negative acknowledgement (NACK) from the base station," thus rendering the claim internally inconsistent.

Dependent claim 2 recites “wherein the at least one transceiver and the processor are further configured to cause the WTRU to, in response to a determination to retransmit the data block, retransmit the data block.” We agree with Petitioner that Lucent discloses that the UE retransmits data, as shown in Figure 2. *See* Pet. 27–29; Ex. 1005 at 4–5 (disclosing that “the UE retransmits the second packet” in response to determining there was an error).

Claim 8 recites, “The WTRU of claim 1, wherein the scheduling information indicates a modulation and coding scheme.” Lucent discloses that “[t]he schedule grant message contains H-ARQ parameters, transport block size (TBS) indication, and modulation and coding scheme (MCS).” Ex. 1005 at 1. Thus, we agree with Petitioner’s contention that Lucent describes claim 8. *See* Pet. 28–29.

Claim 11 is a method claim with limitations corresponding to the subject matter of claim 1, and claims 12 and 18 recite similar subject matter as claims 2 and 8, respectively.

For the reasons discussed above and based on Petitioner’s contentions and evidence, summarized above, we are persuaded, on this record, that Petitioner shows a reasonable likelihood of prevailing in demonstrating that claims 1, 2, 8, 11, 12, and 18 are unpatentable as anticipated by Lucent. Petitioner also demonstrates a reasonable likelihood of showing obviousness because “a disclosure that anticipates under § 102 also renders the claim invalid under § 103, for ‘anticipation is the epitome of obviousness.’” *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983) (citing *In re Fracalossi*, 681 F.2d 792 (CCPA 1982)).

F. Additional Grounds

Having determined that the Petition meets the threshold for institution (reasonable likelihood of prevailing as to at least one of the challenged claims) based on Lucent, we address the parties' disputes for the remaining grounds.

1. Combination of Kuchibhotla and Liu

Patent Owner argues that Kuchibhotla does not teach limitation 1.e and that a person of ordinary skill in the art would not combine Kuchibhotla and Liu. Prelim. Resp. 37–40.

For limitation 1.e, Petitioner relies on Kuchibhotla's disclosure of using a New Data Expected (NDE) indicator in a scheduling assignment message (SAM) that is sent after an ACK/NACK. Pet. 53–57 (citing Ex. 1006 ¶¶ 23–25, 40, 55, 62, 67–69, 71, 73–75, 78, Figs. 7, 8, 10–12; Ex. 1003 ¶¶ 154–160). Kuchibhotla discloses a situation in which a mobile station (MS) has an error and misreads a NACK as an ACK. Ex. 1006 ¶ 73. Kuchibhotla discloses that the

MS must then vote 616 on the reliability of the misread ACK or the NDE=0. Since the NDE is sent in a SAM that has a CRC check and the ACK/NACK channel does not have a CRC check, the MS determines that the NDE=0 is more reliable 618, ignoring the misread ACK and preparing to send the old packet 604.

Ex. 1006 ¶ 73.

Patent Owner argues Kuchibhotla fails to teach that a determination whether to retransmit data be “not based on whether the WTRU has received a negative acknowledgement (NACK) from the base station,” as recited in claim 1 because “Kuchibhotla uses the received NACK in combination with the NDE to make a decision as to whether retransmit a packet.” Prelim.

Resp. 38–39. On this record, we disagree with Patent Owner because Kuchibhotla uses the NDE, not the NACK, to make a retransmission determination if there is disagreement between the two, as shown above. Ex. 1006 ¶ 73. Furthermore, we do not understand claim 1 to prohibit the reception of a NACK; rather, dependent claim 4 suggests that the scope of claim 1 includes receiving a NACK. *See* claim 4 (“The WTRU of claim 1, wherein the reception of the uplink scheduling information initiates retransmission of a negatively acknowledged (NACK’ed) data block.”).

We find sufficiently persuasive Petitioner’s contentions that Kuchibhotla teaches limitation 1.e. *See* Pet. 53–57.

As to the asserted combination, Patent Owner argues that a person of ordinary skill in the art “would not combine Liu with Kuchibhotla, because there is no suggested modification of the frame structure of Liu to carry the NDE (New Data Expected) indicator of Kuchibhotla in conjunction with the channel quality indicator of Kuchibhotla.” Prelim. Resp. 39–40. This argument is not responsive to Petitioner’s contention that a person of ordinary skill in the art “would have been motivated to modify Kuchibhotla’s SAM to include at least the H-ARQ process identification field (in addition to the existing NDE field in the SAM), as taught by Liu.” *See* Pet. 41 (citing Ex. 1003 ¶¶ 129–130).

We have reviewed Petitioner’s contentions for the remaining limitations, which are presently undisputed by Patent Owner, and we find them sufficiently persuasive.

2. Combination of Lucent and Liu

Petitioner relies on Liu’s disclosure of a HARQ ID to supplement Lucent’s disclosure that “the uplink scheduling information includes a H-ARQ process identification for the H-ARQ process.” *See* Pet. 31–33.

Patent Owner’s argument that a person of ordinary skill in the art “would either use Liu’s NDI to determine whether data is to be sent, or use Lucent’s encoded NACK to determine retransmission” (Prelim. Resp. 36) does not address Petitioner’s reliance on Liu’s HARQ ID and, therefore, is not persuasive on this record.

3. Combination of Kuchibhotla, Liu, and Lucent

Petitioner relies on Lucent’s disclosure of scheduling information that includes a modulation and coding scheme. Pet. 67; *see* Ex. 1005 at 1 (“The schedule grant message contains H-ARQ parameters, transport block size (TBS) indication, and modulation and coding scheme (MCS).”). Patent Owner’s arguments are directed to Lucent’s teachings about implicitly signaling a NACK, which are not responsive to Petitioner’s contentions. *See* Prelim. Resp. 40–41.

4. Combinations with Das

Petitioner relies on Das’s disclosure of using a different modulation and coding scheme for retransmitted data. Pet. 34–36, 69–71; *see* Ex. 1009 ¶ 9 (“[T]he adaptive Hybrid ARQ scheme according to the principles of the invention can use a different modulation, different coding, and a different number of codes for a retransmission than is used in the original transmission”). Patent Owner’s arguments about “Das’s multi-level ACK/NACK method” (Prelim. Resp. 37, 42) are not responsive to Petitioner’s contentions.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in challenging at least one claim of the ’247 patent,

and we institute *inter partes* review of all challenged claims on all grounds raised in the Petition. *See* 37 C.F.R. 42.108(a) (“When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”). At this stage of the proceeding, we have not made a final determination with respect to the patentability of any of the challenged claims or the construction of any claim term.

IV. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a) and 37 C.F.R. § 42.4, an *inter partes* review is hereby instituted as to claims 1–20 of the ’247 patent on all challenges raised in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which will commence on the entry date of this decision.

IPR2023-01270
Patent 10,869,247 B1

FOR PETITIONER:

James L. Davis, Jr
Daniel W. Richards
Fan (Frances) Zhang
Scott Taylor
ROPES & GRAY LLP
james.l.davis@ropesgray.com
daniel.richards@ropesgray.com
frances.zhang@ropesgray.com
scott.taylor@ropesgray.com
LGE-Pantech-Ropes-IPR-Service@ropesgray.com

FOR PATENT OWNER:

Amanda S. Bonner
James A. Fussell, III
Clark S. Bakewell
Baldine B. Paul
MAYER BROWN LLP
asbonner@mayerbrown.com
jfussell@mayerbrown.com
cbakewell@mayerbrown.com
bpaul@mayerbrown.com
Pantech-LGE-IPRService@mayerbrown.com