

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS INC.,
Petitioner,

v.

PANTECH WIRELESS LLC,
Patent Owner

Case: IPR2023-01267

U.S. Patent No. 9,313,809

PATENT OWNER PRELIMINARY RESPONSE

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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PATENT OWNER’S EXHIBIT LIST

Exhibit No.	Description
2001	January 13, 2023 Declaration of Jamie B. Beaber (Confidential)
2002	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 1 (Complaint).
2003	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 15 (LGE SEALED Motion to Disqualify) (Confidential).
2004	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 93 (Magistrate Order Regarding LGE’s Motion for Disqualification) (Confidential).
2005	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 160 (Order Regarding LGE’s Motion for Disqualification) (Confidential).
2006	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 102 (SEALED Defendants’ Rule 72 Objections to the Order Regarding Disqualification) (Confidential).
2007	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 103 (SEALED Pantech Objections to Order Denying DQ) (Confidential).
2008	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 111 (SEALED Pantech Response to LGE Objections to Order Denying Disqualification) (Confidential).
2009	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 113 (SEALED LGE’s Opposition to Plaintiffs’ Rule 72 Objections) (Confidential).
2010	(Reserved)

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Exhibit No.	Description
2011	November 18, 2019 Declaration of Juseong Ryu (Confidential)
2012	ABA Formal Opinion #05-436
2013	3GPP TS 36.321
2014	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 45 (Pantech's Response to LGE's Motion to Disqualify) (Confidential).
2015	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 54 (SEALED Reply ISO Motion to Disqualify) (Confidential).
2016	<i>Pantech Corp. v. LG Electronics Inc.</i> , Case No. 5:22-cv-00113 (E.D. Tex.), Dkt. 60 (SEALED Sur-reply ISO Response to Motion to Disqualify Mayer Brown) (Confidential).
2017	Scheduling Order from <i>Pantech Corp. v. LG Electronics, Inc.</i> , No. 5:22-cv-00113-RWS, Dkt. 240 (E.D. Tex., Jan. 22, 2024)
2018	Invalidity Contentions from <i>Pantech Corp. v. LG Electronics Inc.</i> , No. 5:22-cv-00113-RWS (E.D. Tex. April 13, 2023)

I. INTRODUCTION

Patent Owner Pantech Wireless, LLC (“Patent Owner”) respectfully requests that the United States Patent and Trademark Office (“USPTO” or the “Office”) Patent Trial and Appeal Board (“PTAB” or the “Board”) deny institution of claims 1-10 (“challenged claims”) of U.S. Patent No. 9,313,809 (“the ’809 Patent”) (Ex. 1001). Petitioner LG Electronics Inc. (“Petitioner” or “LGE”) has failed to demonstrate a reasonable likelihood of success of prevailing with respect to at least one challenged claim, and its request would unreasonably request duplicative consideration of grounds currently being considered by a district court and that were already considered by the Office.

Discretionary denial is particularly appropriate here. First, discretionary denial is appropriate under 35 U.S.C. § 314(a). One of the purposes of IPRs is to be an “effective and efficient alternative” to litigation. *Gen. Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16-17 (PTAB Sept. 6, 2017) (precedential). Here, instituting an IPR would not be an effective or efficient alternative to litigation, particularly given the advanced stage of the co-pending District Court case *Pantech Corp. v. LG Electronics Inc.*, No. 5:22-cv-00113-RWS (E.D. Tex.) (“District Court Action”), for which trial is scheduled for September 2024, before even a reply would be due from Petitioner (late October 2024).

Moreover, expert discovery—covering the same combinations of references asserted by this Petition—will conclude prior to any institution decision. Petitioner has not offered any *Sotera*-type stipulation to alleviate concerns of duplicative litigation, nor is a stay likely in the district court. Accordingly, institution would not be in furtherance of an efficient alternative to district court litigation, as is the goal of *inter partes* review, but in these circumstances would merely duplicate the disputes between the parties.

Additionally, discretionary denial is appropriate under 35 U.S.C. § 325(d). Each proposed primary reference and the main secondary reference(s) for each Ground—Wager, Nokia, TS25.321, Lee, and Chun—were already considered by the Office during prosecution. Furthermore, the other references in the Petition are merely relied upon for teachings that are duplicative of the teachings of other references considered by the Office. Petitioner also does not demonstrate any error made by the Office during prosecution. Accordingly, both parts of *Advanced Bionics* are met and denial under § 325(d) is appropriate.

Finally, Petitioner also fails to show any reasonable likelihood of prevailing on any Ground. None of the cited references alone or in combination disclose or suggest the arrangement of each element of claims 1-10. Petitioner recognizes that Wager and Lee, its primary references, both fail to disclose the particular solution

provided in the '809 Patent, and its proposed “cures” for these deficiencies are each materially flawed. Even in light of the supposed knowledge of a POSITA, Petitioner cannot recreate the full solution described in the challenged claims.

Accordingly, for at least these reasons, the Board should decline to institute *inter partes* review.

II. BACKGROUND

A. Brief Technology Background

The invention of the '809 Patent relates to wireless communications, and particularly to cellular wireless communication systems. In wireless communication systems in use around the 2007 timeframe, access to radio resources was controlled by the radio network. When a wireless device, such as a wireless transmit receive unit (WTRU), had data to transmit, it would use radio resources allocated by the radio network to transmit its data payload to the network.

One such radio resource is a random access channel (RACH). Access to RACH is contentious, meaning that multiple nodes (including WTRUs) will be able to access these resources. One downside of contentious access is that collisions may occur when multiple WTRUs access the resources simultaneously.

Furthermore, because RACH is a shared channel, conventionally only relatively short message payloads were allowed to be transmitted in order to avoid WTRUs holding the shared radio resource for long periods of time. However, this

resulted in relatively small data rates, and WTRUs would demand larger data rates using dedicated resources instead of RACH to compensate. Such larger data rates were required for emerging technologies for WTRUs, such as internet browsing and email. But with these data-intensive services, long periods of inactivity between successive transmissions were possible, requiring keep-alive messages and ineffective utilization of network resources.

In order to overcome the small data rates of RACH and inefficiencies of dedicated resource channels, it was proposed to use an enhanced dedicated channel (E-DCH) in the cell forward access channel (CELL_FACH) state rather than the shared RACH, and thereby increase the data rate of the shared channel. *See* Ex. 1001 at 1:65-67. The use of E-DCH would be referred to as enhanced RACH (E-RACH) access. However, this E-RACH proposal failed to set forth a method to terminate the E-RACH message phase.

B. Overview of The '809 Patent Invention

The '809 Patent is generally directed to apparatuses and methods for communicating with a base station using an E-DCH resource while in a CELL_FACH state, and solves the aforementioned problems with existing proposals to utilize such E-DCH resources. Specifically, the challenged claims of '809 Patent describe an apparatus and method for terminating an E-RACH message in an

E-RACH transmission using triggers, an inventive concept absent in the prior art.
See Ex. 1001 at 2:20-26.

For example, in accordance with the invention of the '809 Patent, an empty E-DCH buffer may trigger the WTRU to transmit scheduling information (SI) including a total E-DCH buffer status (TEBS) to a base station of the radio network. *See id.* at 2:27-32. The WTRU also uses the completion of the SI transmission and an empty hybrid automatic repeat request (HARQ) buffer as conditional triggers to release the E-DCH resource. *See id.* at 5:34-61. These triggers and subsequent release of resources provide increased data rates and improved utilization over conventional RACH or dedicated resource channels. *See id.* at 2: 13-18.

C. Relevant '809 Patent Prosecution History

During prosecution of the application that led to the '809 Patent, many prior art references now relied upon by the present Petition (including each primary reference) were considered. Specifically, the Applicant provided the Examiner with an IDS on January 12, 2015, which listed, *inter alia*, Wager, Chun, Lee, Nokia, and TS25.321 V1.5.0 (as well as additional versions). The Examiner acknowledged consideration of these references. Ex. 1002 at 169-177.

At the same time that these references were acknowledged, the Examiner issued an office action rejecting pending claims 1-20 on the sole grounds of

nonstatutory double patenting as unpatentable over related U.S. Patent No. 8,774,104 (“the ’104 Patent). Upon the Applicant filing a terminal disclaimer (April 2, 2015), the claims were allowed on June 22, 2015.

In the Notice of Allowance, the Examiner noted that “[t]he prior art of record fails to disclose”:

- the feature for releasing, by the WTRU, an E-DCH resource when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty, as recited in claims 1, 6, 16, 21, 26, 41, 46;
- the feature to release the E-DCH resource when the transmission of the SI with the TEBS equal to zero has been made and a last HARQ data transmission has been made, as recited in claims 11, 31, 36, 51, 56; and
- a processor configured to allocate an enhanced uplink (EU) resource and an associated hybrid automatic repeat request (HARQ) process for a wireless transmit receive unit (WTRU) based on a request received from the WTRU by the receiver; and a transmitter, responsive to the processor, configured to transmit to the WTRU information regarding the allocated EU resource; wherein the processor releases the allocated EU resource when a scheduling information (SI) is received from the WTRU by the receiver with and E-DCH buffer status (TEBS) equal to zero and a HARQ transmission associated with the HARQ process is completed, as recited in claims 61 and 68.

Ex. 1002 ('809 Patent File History) (Notice of Allowance, Jan. 14, 2016) at 283. Notably, Wager, Chun, Lee, Nokia, and TS25.321, V1.5.0 (as well as additional versions) were all a part of this “prior art of record.” Ex. 1002 at 169-177.

1. Prosecution of Related U.S. Patent No. 8,774,104

Furthermore, the earlier prosecution of the related '104 Patent (the basis for the double patenting rejection) shows a closer consideration of the prior art that Petitioner now relies upon. Specifically, the same Examiner who later considered the '809 Patent application initially rejected the claims of the '104 Patent¹ over U.S. Patent Publication US2009/0225709 (“Wager”) in a December 6, 2011 Final Office Action (Ex. 1027 at 364), a June 6, 2012 Non-final Office Action (Ex. 1027 at 537), and an August 19, 2013 Final Office Action (Ex. 1027 at 726). The rejections over Wager were extensively discussed across these office actions, the applicant’s respective responses, and as the subject of telephonic interviews—in other words, Wager was extensively considered. Ultimately, the '104 Patent was allowed over Wager.

¹ While the prosecution history of the '104 Patent includes additional rejections involving additional references, none are particularly relevant for purposes of this Preliminary Response.

Thus, the Examiner extensively considered (and relied on) Wager in rejecting claim limitations that resemble the limitations in the '809 Patent. The chart below identifies the Examiner's basis for his rejections, and shows the similarities between the applicable '104 Patent limitations and limitations of the '809 Patent:

'104 Patent Claim	'809 Patent Claim	Examiner's cited portion of Wager
[1.a] determining that a buffer is empty;	[1.a] determining if a E-DCH buffer is empty; <i>See also</i> [6.e] (substantially similar limitation)	Fig. 5A; Fig. 6; ¶ 45
[1.b] on a condition that the buffer is empty, triggering a transmission by the WTRU of scheduling information (SI) with a total enhanced dedicated channel (E-DCH) buffer status (TEBS) equal to zero;	[1.b] transmitting to the base station scheduling information (SI), wherein the SI includes a total E-DCH buffer status (TEBS) equal to zero when the E-DCH buffer is determined to be empty; <i>See also</i> [6.f] (substantially similar limitation)	Fig. 6; ¶ 46
[1.c] determining a last hybrid automatic repeat request (HARQ) data transmission; and	[1.c] determining if a hybrid automatic repeat request (HARQ) buffer is empty; and <i>See also</i> [6.g] (substantially similar limitation)	¶ 46

[1.d] on a condition that the buffer is empty and the last HARQ data transmission has been determined, releasing an E-DCH resource.	[1.d] releasing the E-DCH resource when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty. <i>See also</i> [6.h] (substantially similar limitation)	Fig. 6; ¶ 46
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In overcoming Wager, the Applicant successfully argued that Wager was not prior art. The '104 Patent claims priority to a provisional application (U.S. Provisional Patent App. No. 60/975,985), filed September 28, 2007. Wager (filed December 5, 2008) incorporates by reference U.S. Provisional Patent App. No. 61/015,316, filed December 20, 2007.

As part of the basis for using Wager to reject the claims, the Examiner alleged that the pending claims of the '104 Patent were not supported by the provisional application and thus not entitled to the earlier priority date. Ex. 1027 at 539. Applicant responded by identifying examples of support for the claim limitations in the provisional application showing that the pending claims of the '104 Patent were entitled to the earlier priority date. *Id.* at 560-62. The Examiner agreed and withdrew the rejection based on Wager. *Id.* at 686.

Later, the Examiner once again rejected the claims based on Wager. *Id.* at 728. Applicant demonstrated that the provisional application to which Wager claimed priority (U.S. Provisional Patent App. No. 61/015,316) does not support the subject matter cited by the Examiner in the Wager publication. *Id.* at 754. A Notice of Allowance followed (November 8, 2013) and identified the allowable subject matter that the prior art of record (including Wager) failed to disclose:

<i>Allowable Subject Matter</i>	
2.	Claims 1-7 and 30-32 are allowed. The prior art of record fails to disclose the features on a condition that the buffer is empty, triggering a transmission by the WTRU of scheduling information (SI) with a total enhanced dedicated channel (E-DCH) buffer status (TEBS) equal to zero; determining a last hybrid automatic repeat request (HARQ) data transmission; and on a condition that the buffer is empty and the last hybrid automatic repeat request (HARQ) data transmission has been determined, releasing an E-DCH resource, as recited in claims 1 and 6.

D. Summary of Petitioner’s Proposed Grounds for Unpatentability

Petitioner contends that claims 1-10 would have been obvious under pre-AIA 35 U.S.C. § 103. The Petition raises twelve grounds of alleged obviousness based on seven references:

1. US2009/0225709 (“Wager”);
2. WO 2007/078155 (“Lee”);
3. R2-073254 (“Nokia”);

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4. 3GPP TS 25.321 v7.5.0 (“TS25.321”);
5. US2006/0176845 (“Sarkkinen”);
6. 3GPP TS 25.331 v7.5.0 (“TS25.331”); and
7. US2006/251027 (“Chun”).

The specific grounds of alleged invalidity under 35 U.S.C. § 103 are based on shifting combinations of the seven references identified above, and are summarized as follows:

Ground	’809 Patent Claims	Type of Challenge	Primary Reference	Secondary Reference(s)
1	1, 4, 6, 10	§ 103	Wager	TS25.321
2	1, 4, 6, 10	§ 103	Lee	Nokia and TS25.321
3	2-3, 5, 7-9	§ 103	Wager	TS25.321 and Sarkkinen
4	2-3, 5, 7-9	§ 103	Lee	Nokia, TS25.321, and Sarkkinen
5	5, 7	§ 103	Wager	TS25.321 and TS25.331
6	5, 7	§ 103	Lee	Nokia, TS25.321, and TS25.331
7	6-10	§ 103	Wager	TS25.321 and Chun
8	6-10	§ 103	Lee	Nokia, TS25.321, and Chun
9	6-10	§ 103	Wager	TS25.321, Sarkkinen,

				and Chun
10	6-10	§ 103	Lee	Nokia, TS25.321, Sarkkinen, and Chun
11	6-10	§ 103	Wager	TS25.321, TS25.331, and Chun
12	6-10	§ 103	Lee	Nokia, TS25.321, TS25.331, and Chun

E. Petitioner’s Relied-Upon References

The seven references relied upon by Petitioner to challenge the patentability of claims 1-10 of the ’809 Patent are summarized as follows:

1. Overview of Wager (Ex. 1005)

U.S. Patent Publication No. 2009/0225709 (“Wager”) is entitled “Managing Uplink Resources in a Cellular Radio Communications System” and was published on September 10, 2009. Wager incorporates by reference provisional application 61/015,316 (Ex. 1006), filed on December 20, 2007.

Wager is directed to “efficiently using common uplink radio resources, e.g. a common uplink enhanced-dedicated physical channel (E-DCH) resource” and “release[ing] a common E-DCH resource very quickly after a completed transmission” in order to “free up common E-DCH resources for use by other USs. Ex. 1005, Abstract.

Wager discloses releasing common E-DCH resources when the UE detects

that a transmit buffer is empty. *Id.* at ¶ [0008]. Wager also discloses releasing the common E-DCH resource when a HARQ reordering timer has expired. *Id.* at ¶ [0009]. Further, Wager discloses releasing common E-DCH resources after all HARQ processes are finished.

As explained below, Wager discloses releasing common E-DCH resources but does not disclose determining if the E-DCH buffer and HARQ buffer are empty, nor does Wager disclose using an empty buffer status as a trigger to release common E-DCH resources.

2. Overview of Lee (Ex. 1007)

International Patent Publication No. WO 2007/078155 (“Lee”) is entitled “Method for Scheduling Radio Resources in Mobile Communication System” and was published on July 12, 2007.

Lee is directed to scheduling radio resources in a mobile communication system. Ex. 1007 at Abstract. Lee discloses allocating resources using a message from a UE during uplink transmission by the UE. *Id.* at 8:15-17. One method for determining whether radio resources are needed relies on an indication that “there is no data left for transmission over an uplink path.” *Id.* at 9:18-19. In order to transmit a “radio resource allocation release request message,” Lee discloses a “1-bit indicator” included in the MAC Protocol Data Unit. *Id.* at 14:4-12.

As explained below, Lee discloses an indication that “there is no more data for transmission left in the buffer” (*id.* at 14:11-12) but does not disclose determining if the E-DCH buffer and HARQ buffer are empty, and using the combination of empty buffer statuses as a trigger to release common E-DCH resources.

3. Overview of Nokia (Ex. 1008)

3GPP T-doc R2-073254 (“Nokia”) is titled “Further discussion on enhanced CELL_FACH in REL8” and was published by August 24, 2007.

Nokia discusses reasons to improve uplink using common channel RACH, such as limited capacity and speed, in terms of resource allocation. Ex. 1008 at 1. Nokia proposes using E-DCH channels for enhanced CELL_FACH for uplink transmissions, thereby providing HARQ and power control in order to enable larger data amounts with high reliability. *Id.* at 2.

As explained below, while Nokia links HARQ with uplink transmissions, it does not disclose the status of a HARQ buffer or describe the role of HARQ in releasing resources.

4. Overview of TS25.321 (Ex. 1009)

TS25.321, v7.5.0 (“TS25.321”) is a technical specification related to UMTS radio technology, and specifically the Medium Access Control (MAC) protocol. TS25.321 is provided by 3GPP and was published by July 17, 2007 as part of Release 7.

Petitioner relies on TS25.321 because it discloses “flushing” (*i.e.*, transferring any data contained therein and thereby causing the buffer to purge any remaining contents) the HARQ buffer. *See* Petition at 52; Ex. 1009 (TS25.321) at 100. However, as explained below, flushing the HARQ buffer is not the same as determining if the HARQ buffer is empty, which is the claim limitation the Petition challenges with TS25.321. As these concepts are not the same, determining if the HARQ buffer is empty is not taught by TS25.321.

5. Overview of Sarkkinen (Ex. 1010)

U.S. Patent Publication No. 2009/0176845 (“Sarkkinen”) is entitled “User Equipment-Based Resource Management Method and System” and was published on August 10, 2006.

Sarkkinen is directed to managing network resources using user equipment to inform a network controller that resources are ready to be released. Ex. 1010 at ¶ [0003]. Sarkkinen discloses using an inactivity timer in the user equipment as the basis for triggering the transmission of an identifier that indicates termination of an uplink data transmission. *Id.* at ¶¶ [0027], [0038]. Petitioner relies on Sarkkinen’s disclosure of an inactivity timer for elements of dependent claims 2-3, 5, and 7-9. *See* Petition at 60-61. However, while Sarkkinen discusses some inactivity timers, Sarkkinen does not disclose that the expiration of the timer results in the

transmission of the SI, as claimed by the '809 Patent.

6. Overview of TS25.331 (Ex. 1011)

TS25.331, v7.5.0 (“TS25.331”) is another technical specification related to UMTS radio technology, specifically Radio Resource Control protocol or the UE-UTRAN radio interface. TS25.331 is provided by 3GPP and was published by July 31, 2007 as part of Release 7.

Petitioner relies on TS25.331 as disclosing teachings regarding releasing certain resources under certain conditions that can cause disruption to resource usage, such as during cell reselection or in the event of radio link failure. *See, e.g.*, Petition at 70. However, while the release of certain resources is taught, TS25.331 does not specify releasing E-DCH resources, as claimed.

7. Overview of Chun (Ex. 1012)

U.S. Patent Publication No. 2006/0251027 (“Chun”) is entitled “Communicating Control Information in Mobile Communication System” and was published on November 9, 2006. Chun generally relates to using control information of a mobile terminal for scheduling an uplink channel more quickly with less power.

Petitioner relies on Chun as disclosing the hardware elements included in the claims, specifically a “transmitter” and “processor.” *See, e.g.*, Petition at 75. However, Chun focuses on power management and does not disclose releasing resources, and therefore has limited applicability to the specific art and problems at

issue.

III. CLAIM CONSTRUCTION

For purposes of this proceeding, Petitioner has not identified any claim terms for construction as necessary to resolve the controversy. Rather, Petitioner defers to (and Patent Owner agrees) that the claims should be construed according to their plain and ordinary meaning.

In the District Court Action, the parties agreed that the preambles of independent claim 1 and independent claim 6 are limiting, as Petitioner has acknowledged. *See* Ex. 1033, 1-2.

IV. LEGAL STANDARD FOR OBVIOUSNESS

A claim is not patentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time of the invention. 35 U.S.C. § 103(a) (pre-AIA).² Obviousness requires assessing (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness

² The pre-American Invents Act (“AIA”) statute controls here because the ’924 Patent is entitled to an effective filing date prior to the AIA’s implementation.

such as “commercial success, long felt but unsolved needs, failure of others, etc.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)).

It is the petitioner’s burden “to demonstrate both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (quotations and citations omitted). However, a petitioner must first show that all of the claimed elements are disclosed in the prior art. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006) (considering motivation to combine and reasonable expectation of success only “if all the elements of an invention are found in a combination of prior art references”). The Petition fails under this legal standard.

V. DISCRETIONARY FACTORS FAVOR DENIAL OF INSTITUTION

The Petition should be denied pursuant to the Director’s discretion to deny institution of petitions. First, the Petition should be denied pursuant to 35 U.S.C. § 314(a) according to the factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020). The PTAB has the authority, where warranted, to exercise discretion to deny institution in view of the *Fintiv* factors particularly

where, as here, the merits of the challenge are neither compelling nor meritorious (*see infra*, Section VI). *See* “Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings With Parallel District Court Litigation,” issued June 21, 2022 (“Director’s Guidance”).

Second, the Petition should be denied pursuant to 35 U.S.C. § 325(d) because the Petition relies upon the “same or substantially the same art previously [] presented to the Office” and fails to demonstrate “that the Office erred in a manner material to the patentability of the challenged claims.” *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 8 (PTAB. Feb. 3, 2020) (precedential); *see also Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, pp. 17-18 (PTAB Dec. 15, 2017) (Precedential).

Thus, the Petition would be neither an “effective [nor] efficient alternative” to the ongoing litigation, and would not be an efficient use of Board resources. *Gen. Plastic Indus.*, IPR2016-01357, Paper 19 at 16-17. On these bases, the Petition should be discretionarily denied.

A. Application of *Fintiv* Factors Weighs in Favor of Denying Institution

As the Board is well aware, there is no requirement to institute an IPR. *See, e.g., Harmonic Inc. v. Avid Tech.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016); *see also*

Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2140 (2016); 37 C.F.R. § 42.108(a). Guidance from the Director states that the purpose of discretionary denial is to “limit unnecessary and counterproductive litigation costs” and avoid gamesmanship. See Memorandum on Interim Procedure for Discretionary Denial from Katherine K. Vidal, Director of the USPTO, at 1 (June 21, 2022). This guidance has also clarified the application of the so-called *Fintiv* factors to circumstances such as these, where there is a co-pending District Court Action.³ *Id.*

For the Grounds presented in this Petition, instituting an IPR would not be an effective or efficient alternative to litigation because, most notably, the co-pending District Court Action (1) involves the same prior art that LGE relies on here, and (2) will be complete well before a final written decision in this proceeding. Furthermore, LGE is asking the Board to consider a staggering twelve asserted grounds of invalidity in this IPR Petition. This is well beyond the normal limits of a IPR petition and thus puts an increased burden on the Board to complete review of such a voluminous Petition within the statutory timeframe. When considered within a thorough analysis of the *Fintiv* factors, any slim (if any) merits of this petition fail

³ Here, the co-pending District Court Action is *Pantech Corp. v. LG Electronics Inc.*, No. 5:22-cv-00113-RWS (E.D. Tex.).

to weigh in favor of institution. Rather, the merits of LGE’s invalidity challenge are best addressed in the District Court Action, and therefore, the Board should exercise its discretion to deny institution.

1. The Court Has Not Stayed the District Court Action

Regarding the first *Fintiv* factor (“whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted”), a stay has not been granted in the District Court Action, and Petitioner has not filed a motion to stay in view of this Petition. And while Petitioner has made the bare statement that it “intends to seek a stay” if this IPR is granted (*see* Petition at 16), there is no evidence that Petitioner’s not-yet-made request would be granted even if made—and Petitioner has offered absolutely none.

While the Board “will not attempt to predict” how the district court will proceed in the absence of specific evidence (*Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR 2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative)), it bears mentioning that the evidence indicates that a stay will not be granted. First, even if this IPR is instituted, the projected final written decision will not occur until April, 2025—approximately seven months after the scheduled

trial date in the District Court Action.⁴ In similar circumstances, this district court routinely denies motions to stay. The District Court’s decision in *Maxell Ltd. v. Apple Inc.*, No. 5:19-CV-00036-RWS, 2020 U.S. Dist. LEXIS 257531, at *7-9 (E.D. Tex. April 27, 2020), explained that a stay should not be granted because the case was filed “more than a year ago” (as would be true with this litigation) and because trial is scheduled for six months after the order (the September trial date would be even closer to any decision on institution). *See also Kirsch Research and Development LLC v. DuPont de Nemours, Inc.*, Dkt. 269, No. 5-20-cv-00057-RWS (E.D. Tex. July 7, 2021) (similar analysis following *Maxell* and noting the advanced stage of litigation). Second, the District Court has already denied a different request by Petitioner to stay the litigation (for reasons unrelated to any *inter partes* review), stating that a stay “would unjustly delay the progress of the case and harm Pantech’s interests in timely resolution.” *See Pantech Corp. v. LG Electronics Inc.*, No. 5:22-cv-00113-RWS, Dkt. 131 at 1 (E.D. Tex., July 19, 2023). The Court has thus demonstrated its intent to proceed to trial in a timely manner. As such, there has been

⁴ Jury trial is scheduled for September 23, 2024. *See Pantech Corp. v. LG Electronics Inc.*, No. 5:22-cv-00113-RWS, Dkt. 240 at 1 (E.D. Tex., Jan. 22, 2024) (scheduling order attached as Exhibit 2017).

no suggestion that the trial would not occur as currently scheduled in September 2024.

As such, the evidence indicates that a stay will not be granted in the future even if Petitioner requests one, and this *Fintiv* factor weighs in favor of denial.

2. The Trial Date in the District Court Action Precedes the Projected Final Written Decision Date

Regarding the second *Fintiv* factor (“the proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision”), the projected final written decision date is in late April, 2025, well after the scheduled September 23, 2024 trial date in the District Court Action. In fact, the trial date is even before any reply would be due from Petitioner (late October, 2024) and prior to the final oral hearing, should *inter partes* review be granted.

While Petitioner correctly states that the median time to trial in the Eastern District of Texas “varies between 19 and 24 months” (see Petition at 17, citing Ex. 1032), 24 months after the filing date is September 2, 2024. That is **before** the currently-scheduled trial date (meaning the current schedule is already longer than the average). Petitioner’s alternative citation to privately gathered statistics from *Docket Navigator* indicating a median time to trial of 26 both exceeds the guidance from the USPTO Director of what statistics will be considered (see Memo from Katherine K. Vidal at 9 n. 12 (June 21, 2022)) and also does not meaningfully change

the analysis—November 11, 2024 (the date using these statistics) would still be many months before the projected statutory deadline for a final written decision. Regardless, the statistics about averages are irrelevant here because a trial date has been set and there has been no indication that it would move in any significant way beyond the currently scheduled date.

Accordingly, this *Fintiv* factor also weighs in favor of denial.

3. The Parties Have Invested Substantial Efforts in Litigating the Grounds Presented in this Petition in the District Court Action

Regarding the third *Fintiv* factor (“investment in the parallel proceeding by the court and the parties”), the parties have significantly invested in the District Court Action. For example, the parties have served and responded to discovery including making large document productions, engaged in early motion briefing, a hearing on a motion to dismiss (with related briefing and a denied motion for reconsideration), engaged in full claim construction briefing and depositions of experts relating to claim construction, and received a claim construction order. Fact discovery has concluded.

Most notably, expert reports on invalidity are due to be served on February 21, 2024, with expert discovery on validity concluding by April 10, 2024—expert discovery will therefore be complete by the time of any institution decision. *See*

Exhibit 2017 at 3. As addressed below in the context of the fourth *Fintiv* factor, the grounds of invalidity disputed by the parties in the District Court Action are substantially the same as Petitioner presents here. Thus, the parties have already (or shortly will have) invested many of the same resources into the District Court Action that Petitioner seeks to bring into this dispute. Institution would be a waste of party and judicial resources, precisely what discretionary denial seeks to avoid. See Memo from Katherine K. Vidal at 1 (June 21, 2022).

This *Fintiv* factor also weighs in favor of denial.

4. The District Court Action will Consider Substantially the Same Grounds as Presented in this Petition

Regarding the fourth *Fintiv* factor (“overlap between issues raised in the petition and in the parallel proceeding”), each of the twelve grounds of alleged invalidity asserted in this Petition are already being litigated in the District Court Action.

Specifically, each of Wager, Lee, Nokia, TS25.321, Sarkkinen, TS25.331, and Chun (*i.e.*, each alleged prior art reference at issue in this Petition) is being asserted as a basis of invalidity in the District Court Action. Exhibit 2018 (LGE’s Invalidity Contentions) at 71-76. Indeed, each combination relied upon by Petitioner is also being presented in the District Court Action, including Wager in view of TS25.321, Sarkkinen, and Chun as well as Lee in view of Nokia, TS25.321, Sarkkinen, and

Chun (*i.e.* Grounds 1-12). *Id.* at 73-74.

Moreover, Petitioner has not offered any *Sotera*-type stipulation or made any effort to avoid duplicative proceedings.

Given that the Petition is directed toward the same claims, same grounds, same arguments, same references, and significantly overlapping evidence at issue in the parallel District Court Action, and since Petitioner has not sought to mitigate any of these concerns through a *Sotera* stipulation, this *Fintiv* factor favors denial of institution.

5. The Parties are the Same in the District Court Action

Regarding the fifth *Fintiv* factor (“whether the petitioner and the defendant in the parallel proceeding are the same party”), LG Electronics Inc. is both Petitioner here and a defendant in the District Court Action. The Petition acknowledges this. *See* Petition at 17. This *Fintiv* factor thus also weighs in favor of denial.

6. Other Circumstances Also Weigh in Favor of Discretionary Denial

Regarding the sixth *Fintiv* factor (“other circumstances that impact the Board's exercise of discretion, including the merits”), while petitioner avers that “[t]he merits of this Petition are compelling as shown herein” (*see* Petition at 17), as set forth below in Section VI, the weakness of the proposed grounds weighs strongly in favor of denial of institution.

But even if there are some merits to Petitioner’s shotgun, twelve-ground challenge (and there are not), “[w]here the information presented at the institution stage is merely sufficient to meet the statutory institution threshold [a reasonable likelihood of success], the PTAB has the authority, where warranted, to exercise discretion to deny institution in view of the other *Fintiv* factors.” Memo from Katherine K. Vidal at 4 (June 21, 2022). Petitioner has certainly failed to meet the higher threshold of a “compelling” unpatentability challenge, and the number of references in some of its asserted grounds, (up to five), call into question how “compelling” its arguments are.

Furthermore, the sheer number of grounds asserted, twelve, increases substantially the duplicative litigation sought by Petitioner. Asking both the USPTO and the district court to independently consider twelve asserted grounds of invalidity, on the basis of seven references, without any *Sotera* stipulation, surpasses any reasonable threshold of “counterproductive litigation costs” limited by the Director’s guidance on discretionary denial (not to mention gamesmanship).

In addition, the institution should be denied because of the excessive number of grounds presented in this Petition that also lack particularity. The efficient administration of the Office, the integrity of the patent system, and the Board’s ability to timely complete the requested review, and the undue burden that the

number of prior art combinations asserted in the Petition places upon the Board and Patent Owner support denial of institution. “[W]here a petition contains voluminous or excessive grounds, Office guidance indicates ‘[t]he panel will evaluate the challenges and determine whether, in the interests of efficient administration of the Office and integrity of the patent system (see 35 U.S.C. § 316(b)), the entire petition should be denied under 35 U.S.C. § 314(a).’” *Energysource Minerals LLC v. Terralitium LLC*, IPR2019-00607, Paper 10, at 11 (PTAB May 4, 2020) (quoting SAS Q&As, Part D, Effect of SAS on future challenges that could be denied for statutory reasons (June 5, 2018)).

Here, the Petition challenges ten claims, based on seven references, across twelve grounds. The petition in the informative *Adaptics* decision, by contrast, asserted a similarly large number (ten) of prior art references against nine patent claims but using only five grounds. *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20, at 2, 6 (PTAB Mar. 6, 2019) (informative) (“Adaptics”). In *Adaptics*, the use of the conjunction in a “catch-all” ground resulted in “seventeen possible combinations” of prior art references, which represented an “unduly burdensome” number of challenges. *Adaptics*, Paper 20 at 9, 13, 14, 19. Here, Petitioner asserts at least twelve prior art combinations. Petitioner’s Grounds 6-12 also suffer from a lack of particularity. Grounds 6-12 apply Chun to Grounds 1-6 without providing a clear

explanation or motivation to combine the multiple references. Accordingly, the Board should exercise its discretion under 35 U.S.C. § 314(a) and deny the Petition.

Therefore, the sixth *Fintiv* factor also weighs against institution.

* * *

As described above, every single one of the six *Fintiv* factors weighs against institution of this Petition. The USPTO should exercise its discretion not to institute an *inter partes* review in view of the advanced stage of the District Court Action proceeding on substantially the same grounds, as well as the other considerations described herein.

B. 35 U.S.C § 325(d) Also Weighs in Favor of Denying Institution

The Board should also deny institution under § 325(d) because the petition argues the “same or substantially the same art previously [] presented to the Office” and fails to demonstrate “that the Office erred in a manner material to the patentability of the challenged claims.” *Advanced Bionics*, IPR2019-01469, Paper 6, 8 (PTAB Feb. 3, 2020) (precedential). The Board has construed “previously presented” in 35 U.S.C. § 325(d) to refer to art and arguments presented to the Office prior to the filing of the petition at issue. *Ironsource Ltd. v. Digital Turbine Inc.*, PGR2021- 00096, Paper 14 at 52 (PTAB Jan. 6, 2022).

Specifically, the IPR-asserted art was previously considered or at least “substantially the same” as the art considered because five of the references—Wager, Nokia, TS25.321, Lee, and Chun—were previously presented to the Office during prosecution, and the remaining references merely duplicate the teachings that were considered. This prosecution history thus meets Part 1 of the two-part framework from *Advanced Bionics*.

Under Part 2, Petitioner fails to demonstrate that the Office erred regarding Wager; fails to even allege any error regarding Nokia, TS25.321, Lee, and Chun; and fails to address the cumulative nature of the remaining references entirely, indicating the appropriateness of denial under § 325(d). *Albany Int’l Corp. v. Kimberly-Clark Worldwide, Inc.*, PGR2021-00019, Paper 22, 8-9 (P.T.A.B. June 22, 2021) (denying institution because “[i]f a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute [] review.”).

1. The Same or Substantially the Same Art/Arguments Were Previously Considered

Part 1 is met with respect to Wager, Nokia, TS25.321, Lee, and Chun (*i.e.*, each primary reference and the main secondary reference(s) from each ground) because they were cited in an IDS and are listed on the face of the patent. *Advanced Bionics* makes clear that “[p]reviously 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.” *Advanced Bionics*, Paper 6, at 7-8. Clear intrinsic evidence, and in particular the Examiner’s notations, shows that “[a]ll references” submitted in the IDS were actually considered by the Examiner. *See, e.g., Nespresso USA, Inc. v. K-fee System GmbH* IPR2021-01221, Paper 9, at 14 (PTAB Jan. 18. 2022). This is enough to satisfy Part 1 as to Wager, Nokia, TS25.321, Lee, and Chun, and advances the inquiry to determining whether there is material error under Part 2 for each of these references.

In addition, Petitioner is wrong when it asserts that “[w]hile Wager was discussed during the ’104’s prosecution (see §V.B), it was not substantively addressed for the ’809.” Petition, at 15. At least because the related ’104 Patent issued years before the filing of the instant Petition, it is highly pertinent to the Part 1 analysis. *See Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999) (“When multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that contain the same claim limitation.”); *Nokia of America Corp. v. Alexander Soto and Walter Soto*, IPR2023-00681, Paper 10, 20 (PTAB Nov. 3, 2023) (finding the parent prosecution history to apply in equal force

to evaluate Part 1).

Indeed, the examined claims of the ‘104 Patent and ‘809 Patent are quite similar, as shown by the comparison chart of independent claims below:

<u>‘809 Patent, Claim 1</u>	<u>‘104 Patent, Claim1</u>
A method performed by a wireless transmit/receive unit (WTRU) to communicate with a base station using an enhanced dedicated channel (E-DCH) resource while in a cell forward access channel (CELL_FACH) state, the method comprising:	A method for completing an enhanced dedicated channel (E-DCH) transmission in a cell forward access channel (CELL_FACH) state by a wireless transmit/receive unit (WTRU), the method comprising:
determining if a E-DCH buffer is empty;	determining that a buffer is empty;
transmitting to the base station scheduling information (SI), wherein the SI includes a total E-DCH buffer status (TEBS) equal to zero when the E-DCH buffer is determined to be empty;	on a condition that the buffer is empty, triggering a transmission by the WTRU of scheduling information (SI) with a total enhanced dedicated channel (E-DCH) buffer status (TEBS) equal to zero;
determining if a hybrid automatic repeat request (HARQ) buffer is empty; and	determining a last hybrid automatic repeat request (HARQ) data transmission; and
releasing the E-DCH resource when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty.	on a condition that the buffer is empty and the last HARQ data transmission has been determined, releasing an E-DCH resource.

Accordingly, Wager was substantively addressed by the Office in the context of substantially similar claims, thus meeting Part 1.

Finally, while two secondary references (Sarkkinen and TS25.331) were not included in an IDS or listed on the face of the ‘809 Patent, they are substantially the

same as references that were fully considered by the Examiner. For example, the Examiner cited to U.S. Patent Publication No. 2010/0091652 (“Lin”) as disclosing similar limitations (the timer limitations of claims 2-3 and 8-9) in dependent claims of the ’109 Patent that Petitioner relies on Sarkkinen for. *See, e.g.*, Ex. 1027 at 368, 543, 688. Specifically, the Examiner cited an inactivity timer in Lin, which starts counting when a queue or buffer becomes empty. *See* Ex. 1027 at 368. Similarly, the Petition relies on Sarkkinen’s disclosure of an inactivity timer that starts when the last packet in uplink is received. *See* Petition at 60-61. As such, a similar inactivity timer proffered by Petitioner using Sarkkinen was considered during the prosecution history and cited in the IDS. *See* Ex. 1002, 171.

Regarding TS25.331, Petitioner relies on this reference for allegedly disclosing the radio link failure limitations of claims 5 and 7; however, substantially similar teachings were considered by the examiner with respect to U.S. Patent Publication No. 2005/0026623 (“Fisher”) as disclosing similar limitations in dependent claims of the ’109 Patent. *See, e.g.*, Ex. 1027 at 545, 690, 731. As one example, the Examiner cited Fisher as disclosing using a determination of whether all of the dedicated channels are NRT or not to indicate failure, and terminate E-DCH when failure was detected. *See* Ex. 1027 at 731. Here, the Petition similarly points to TS25.331’s disclosure of releasing resources when a radio link failure occurs.

Petition at 70. As such, the Examiner already considered arguments substantially similar to those proffered by Petitioner using TS25.331. *See* Ex. 1002, 169.

Accordingly, Part 1 of the *Advanced Bionics* framework has been satisfied for each reference presented by the Petition, and the inquiry proceeds to Part 2.

2. Petitioner Failed to Demonstrate Material Error by the Office

Petitioner fails to even argue any material error by the Office with respect to the Office's prior consideration of Nokia, TS25.321, Lee, and Chun.

With respect to Wager, Petitioner makes only a cursory argument regarding Examiner error. However, Petitioner bears the burden of showing that the Office erred, for example, by "misapprehending or overlooking specific teachings of the relevant prior art whose teachings impact patentability of the challenged claims." *Advanced Bionics*, Paper 6 at 8. Where "the record of the Office's previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive under" *Becton, Dickinson* factors (e) and (f). *Advanced Bionics*, Paper 6 at 10. When assessing factor (e), the Board considers whether Petitioner "point[s] out sufficiently how the examiner erred in its evaluation of the asserted prior art." *Supra* 10. Petitioner addresses neither of those issues adequately, if at all. For example, Petitioner fails to correctly address the Office's prior consideration of Wager during the prosecution of related '104

Patent. Petitioner merely alleges that Wager “was not substantively addressed for the ’809 [patent]” and that “the Claims recite, e.g., ‘HARQ buffer’ elements that are not in the ’104’s claims.” Petition at 15. However, as shown in the comparison chart above, the ’104 Patent’s claims plainly include similar “HARQ buffer” elements. Furthermore, even if Petitioner was correct (and it is not) about limitations that were merely absent in the ’104 Patent’s claims, it is entirely unclear how absent limitations in an earlier patent application could possibly show meaningful Office error with respect to Wager (in contrast, say, to limitations only present for the patent in dispute, which are not the circumstances here).

As such, Petitioner’s analysis is insufficient to meet the second part of the *Advanced Bionics* test and denial under §325(d) is appropriate. *Albany Int’l Corp.*, PGR2021-00019, Paper 22, 8-9 (denying institution because “[i]f a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute [] review.”); *Advanced Bionics*, IPR2019- 01469, Paper 6, 8.

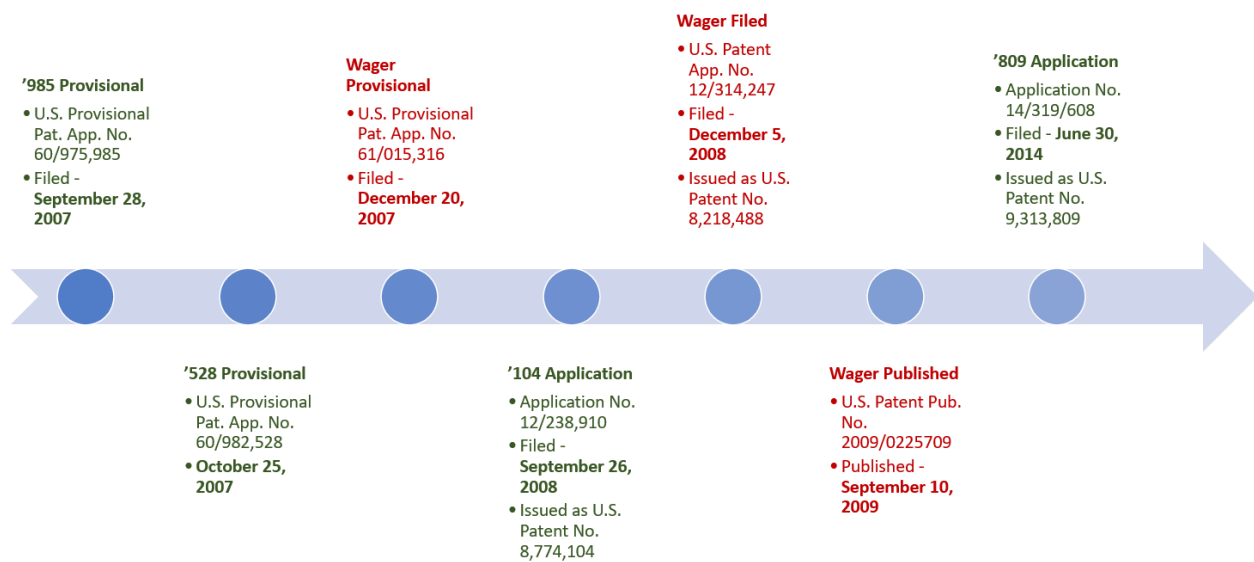
**VI. THE PETITION DOES NOT SHOW A REASONABLE
LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY
CHALLENGED CLAIM**

A. Wager is not prior art

As correctly determined by the Examiner during prosecution of the related ’104 Patent, Wager is not prior art both because the ’809 Patent is entitled to an

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earlier priority date based on its provisional application and because Wager is not entitled to any earlier priority date based on its own provisional application. The following timeline shows the notable events (with events related to the '809 Patent in green and events relating to Wager in red):



As discussed in greater detail below, the priority dates of these competing references means that Wager does not qualify as prior art and accordingly each proposed Ground based upon Wager (Grounds 1, 3, 5, 7, 9, and 11) cannot succeed in showing alleged obviousness.

1. The '809 Patent has a priority date of at least September 28, 2007

The '809 Patent claims priority to U.S. Provisional Pat. App. No. 60/975,985 ("the '985 Provisional") filed September 28, 2007, and U.S. Provisional Pat. App.

No. 60/982,528 (“the ’528 Provisional”) filed October 25, 2007.

The Petition alleges that the ’809 Patent is not entitled to a priority date predating Wager because neither provisional application provides support for the claimed subject matter. *See* Petition at 13. This is incorrect.

Specifically, the Petition alleges that neither the ’985 Provisional nor the ’528 Provisional provides written description support for “releasing the E-DCH resource when ... the HARQ buffer is empty” as required by claim element [1.d] because (1) the ’528 Provisional allegedly “does not discuss HARQ buffers” (Petition at 13); and the ’985 Provisional allegedly does not disclose “releasing resources **when** the HARQ buffer is already empty” (*id.* at 13, emphasis added in Petition).

But as was already explained during the prosecution of the related ’104 Patent, at least the ’985 Provisional provides full support for this challenged claim element. *See* Ex. 1027 at 561.

Specifically, regarding releasing resources **when** the buffer is empty, paragraphs [0024] and [0025] of the ’985 Provisional recites:

[0024] WTRU-initiated triggers.

[0025] In accordance with a second embodiment, the termination may be initiated by the WTRU, based on the status of its queue or buffer. A rule is preferably established for such a trigger, for example, the trigger rule may be:

(1) The WTRU has emptied its buffer;

(2) The WTRU has transmitted all protocol data units (PDUs) which were present when the E-RACH was initiated; or

(3) The buffer has passed a certain threshold level. This level may be an absolute value, or based on a relative measure using the initial queue size (that is the queue size when the E-RACH was initiated).

These paragraphs are not even mentioned by the Petition, and provide just one example of a trigger for an action (such as releasing resources) that is based on the status (*e.g.*, empty) of a buffer in the '985 Provisional. On this disclosure alone, the '985 Provisional provides written description support for the relevant claim language ("releasing the E-DCH resource when ... the HARQ buffer is empty"). Therefore, the '985 Provisional supports using the empty status of the buffer as a trigger for an action, as claimed by the '809 Patent, and the '809 Patent can properly claim priority to at least the '985 Provisional, thereby predating Wager.

Further, even the single paragraph of the '985 Provisional identified and discussed in the Petition (§ [0037]) provides further written description support of the relevant claim language, contrary to Petitioner's arguments. This is because, according to this passage, resources are cleared (*i.e.*, released) based on the "triggering options described above," which includes an empty buffer. '985

Provisional at ¶ [0025].

[0034]	<u>Actions upon E-RACH message part termination.</u>
[0035]	A number of options are possible upon termination of an E-RACH transmission. Example responses to triggers are provided below.
[0036]	<u>Clear all resources.</u>
[0037]	This is viewed as the simplest solution and would be appropriate for all triggering options described above. It may require that the WTRU and the network clear all resources that had been allocated for the E-RACH. For the WTRU, this includes resetting the MAC-es/e, flushing the HARQ buffers, stop monitoring the E-RACH downlink channels, (e.g., enhanced HARQ indicator channel (E-HICH), enhanced absolute grant channel (E-AGCH), enhanced relative grant channel (E-RGCH)).
[0038]	Transition to CELL_DCH with re-allocation of E-RACH to E-DCH and allocation of high speed downlink packet access (HSDPA).

This too supports the relevant claim language, because the “triggering options described above,” *e.g.*, “the [empty] status of its queue or buffer,” cause clearing of “all the resources that have been allocated for the E-RACH” according to the plain language of the ’985 Provisional’s disclosure. Thus, this provisional application provides written description support for at least claim element [1.d] (“releasing the E-DCH resource when the transmission of the SI with TEBS equal to zero has been made and the HARQ buffer is empty”) for this reason too.

Therefore, the claims of the ’809 Patent are supported by at least the ’985 Provisional and thereby entitled to at least a September 28, 2007 priority date.

2. Wager has a priority date no earlier than December 5, 2008

Furthermore, the Petition is based on an incorrect priority date for the disclosures of Wager. Wager claims priority to U.S. Provisional Pat. App. No. 61/015,316 (“the ’316-Wager Provisional”) filed December 20, 2007, but this provisional application does not provide written description support for Wager, meaning that Wager is entitled to a priority date no earlier than its filing (December 5, 2008). As a result, Wager is unavailable as prior art regardless of whether the ’809 Patent can claim priority to the ’985 Patent.⁵

As just one example of the subject matter of Wager relied-upon by the Petition but absent from the ’316-Wager Provisional, the ’316-Wager Provisional makes no reference to HARQ buffers. *See generally* Ex. 1006. This is crucial—challenged claim elements [1.c] and [1.d] of the ’809 Patent require “determining if a [HARQ] buffer is empty” and “releasing the E-DCH resource when ... the HARQ buffer is empty.”

Accordingly, Wager does not predate the ’809 Patent, and even if the Board

⁵ It is undisputed that the ’809 Patent is a continuation of (and therefore unquestionably benefits from the priority date of) the application that led to the issuance of the ’104 Patent, which was filed September 26, 2008.

declines to find that the '809 Patent is entitled to the priority date of the '985 Provisional, Wager does not qualify as prior art to the '809 Patent, as was already determined during prosecution of the related '104 Patent.⁶

B. The Wager grounds are incomplete

Even if Wager is prior art (and it is not), it was considered by the Examiner during prosecution of the '809 Patent and the related '104 Patent. Further, as explained above (*see* Section B.1 *supra*), Wager was considered in combination with references similar to those presented by the Petition. Therefore, the alleged error of “not rejecting the Claims over the combinations relied on” in the Petition falls short.

Nonetheless, Petitioner has failed to establish that Wager discloses the invention set forth in elements [1.a], [1.c], and [1.d] of independent claim 1 of the

⁶ Indeed, the patent that issued based on the Wager publication (U.S. Patent No. 8,218,488) listed the '104 Patent publication (2009/0086671) on its face, strongly indicating that the disclosures related to the '104 Patent precede Wager, not *vice versa*.

'809 Patent ⁷ (and does not even allege that Wager teaches claim elements [1.c] and [1.d], relying only on secondary references for these limitations). Even in the various combinations of prior art set forth by Petitioner, the references identified in the Petition do not disclose at least elements [1.a], [1.c], and [1.d] of independent claim 1.

For example, the Petition alleges that Wager discloses element [1.a] (determining if a E-DCH buffer is empty) because “Wager discloses that a UE *sets* ‘Total E-DCH Buffer Status (TEBS) = 0’” (emphasis added) and that, supposedly, “[s]etting the TEBS=0 reflects the determination that its E-DCH buffer [] is empty.” Petition at 27. However, setting a buffer to zero does not determine if a buffer is empty. For example, “setting” is a write operation whereas “determining” is a read operation—and consequently, no “determination” exists in Wager, as required by the claim language. Further, Petitioner does not rely on any secondary reference to cure this deficiency. In short, Wager’s teachings fail to disclose what is claimed by

⁷ Claim elements [6.c], [6.e], [6.g], and [6.h] of independent claim 6 are substantially similar to claim elements [1.a], [1.c], and [1.d] of claim 1, and, therefore, the Petition similarly fails with respect to independent claim 6 (and all dependent claims) for the same reasons as discussed for claim 1.

the '809 Patent.

Similarly, with respect to element [1.c] (“determining if a hybrid automatic repeat request (HARQ) buffer is empty”), the Petition relies on Wager’s disclosure of “determine[ing] that ‘all HARQ processes have finished’ by receiving an ‘ACK for all HARQ processes.’” See Petition at 28. But again, “receiving an ACK for all HARQ processes” does not disclose or suggest “determining if a HARQ buffer is empty.” Nor does Petitioner offer an explanation for this difference. Instead, the Petition merely points to TS25.321’s disclosure of “the UE ‘flush[ing]’ its ‘HARQ buffer’ ‘if an ACK is received.’” See Petition at 29. But like “setting” above, “flushing” (the act of transferring out any remaining data, see Ex. 1009 at 100) is not equivalent to “determining if a HARQ buffer is empty,” as required by the claim language.

Finally, the overall context of the claims (and specifically the limitations set forth by claim elements [1.b] and [1.d]) further underscores the disparities in the Petition between the '809 Patent claims and the alleged prior art relied upon. With respect to claim element [1.b] of the '809 Patent, the UE “transmit[s] to the bases station scheduling information (SI), wherein the SI includes a total E-DCH buffer status (TEBS) equal to zero when the E-DCH buffer is determined to be empty” (emphasis added). Because this step occurs “when the E-DCH buffer is determined

to be empty,” it is reliant on the determination step that occurred in claim element [1.a]. But the Petition fails to offer any explanation for how the buffer status of Wager is used as a precondition for the transmission in element [1.b]. Instead, the Petition relies on dissimilar resultant actions and variables, with no causation shown. This fails to meet the “when the E-DCH buffer is determined to be empty” claim language of element [1.b].

Similarly, where claim element [1.d] “release[es] the E-DCH resource when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty” (emphasis added), the Petition fails to offer any explanation for how the transmission of the SI (as described with respect to element [1.b]) described in Wager *and* the empty HARQ buffer of TS25.321 trigger the release of the E-DCH resource. Because this step occurs when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty, it is reliant on the steps in claim elements [1.b] and [1.c]. But the Petition omits any explanation for how the transmission of SI and the empty HARQ buffer status are used as preconditions for releasing the E-DCH resource, as claimed.

Because of the deficiencies shown above, Grounds 1, 3, 5, 7, 9, and 11 (those based on Wager as a primary reference) do not have a reasonable likelihood of success.

C. The Lee grounds are incomplete

Where Lee, Nokia, and TS25.321 were previously and properly considered by the Examiner, Petitioner would dismiss them as “identified in IDSs identifying over 100 references, but [] not substantively addressed.” Petition at 15. However, as explained above, identification in an IDS alone is sufficient to meet Part 1 of *Advanced Bionics* requiring a showing examiner error under Part 2. Petitioner failed to address Part 2.

In addition, Petitioner failed to establish that Lee discloses the inventions set forth in limitations [1.c] and [1.d] of independent claim 1 (and indeed, does not even allege that Lee teaches claim elements [1.c] and [1.d], relying only on secondary references for these limitations). But even in combination, the references identified in the Petition do not disclose at least elements [1.c] and [1.d] of independent claim 1 (or the analogous elements of independent claim 6).

For example, the Petition does not argue that Lee discloses element [1.c] (“determining if a hybrid automatic repeat request (HARQ) buffer is empty”), but rather alleges that TS25.321 discloses this element for every ground for which Lee is used as the primary reference. The Petition alleges that TS25.321’s disclosure of *flushing* its HARQ buffer discloses “*determining* whether the HARQ buffer is empty,” as claimed, arguing that “the UE determines the buffer is empty by *flushing*

the buffer.” Petition at 52 (emphasis added). However, the act of *flushing* a buffer is not *determining* if a buffer is empty. For example, “flushing” is akin to a write operation whereas “determining” is a read operation—and consequently, no “determination” exists in Lee, as required by the claim language. *See* Ex. 1009 at 100. Furthermore, the “flushing” identified by Petitioner is an action which does not guarantee that buffer will be empty at all after this action, and Petitioner does not rely on any other secondary reference to cure this deficiency. In short, Lee in view of TS25.321 fails to disclose what is claimed by the ’809 Patent.

Likely recognizing that the disclosure of TS25.321 falls short, Petitioner argues that “it would have been obvious to a POSITA to determine that the HARQ buffer is empty after flushing it to keep track of the HARQ buffer status for future transmissions.” Petition at 52-53. Yet Petitioner provides no evidence from TS25.321 or Lee that the WTRU “keeps track of” the HARQ buffer status, as required for its argument. Moreover, the Petition relies upon mere say-so for this argument, without any underlying reasoning.

The overall context of the claims further underscores the gaps in the Petition. For example, in element [1.d], the UE “releases[s] the E-DCH resource when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty.” Based in part on the empty status of the HARQ buffer determined

in element [1.c], the action described in [1.d] is triggered. The Petition fails to offer any explanation based in Lee or TS25.321 for how the HARQ buffer status (either determined or flushed) is used as a trigger. See Petition at 37, 53. Instead, the Petition relies on disjointed actions and variables described across multiple references.

Similarly, the Petition fails to offer any explanation with respect to element [1.d] for how the transmission of the SI *and* the empty HARQ buffer trigger the release of the E-DCH resource as described in Lee. Independent claim 1 requires the release of the E-DCH resource “when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty” (emphasis added). Because this step occurs when the transmission of the SI with the TEBS equal to zero has been made and the HARQ buffer is empty, it is reliant on the determining steps in claim elements [1.b] and [1.c]. But the Petition fails to demonstrate that the transmission of SI and allegedly empty HARQ buffer described in TS25.321 would be used by Lee as triggers for releasing the E-DCH resource, as claimed.

Because of the deficiencies shown above, Grounds 2, 4, 6, 8, 10, and 12 (those based on Lee as a primary reference) do not have a reasonable likelihood of success.

VII. CONCLUSION

For at least the foregoing reasons, the Board should deny institution.

Case IPR2023-01267
Patent No. 9,313,809
Patent Owner Preliminary Response

Dated: January 29, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 29th day of January, 2024, a copy of the attached **PATENT OWNER PRELIMINARY RESPONSE** was served by electronic mail to the attorneys of record, at the following addresses:

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Case IPR2023-01267
Patent No. 9,313,809
Patent Owner Preliminary Response

CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant 37 CFR 42.24(d), the undersigned certifies that this Preliminary Response complies with the type-volume limitation of 37 CFR §42.24(a). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 9,804 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

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