

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

AT&T SERVICES INC., T-MOBILE USA, INC., CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS, ERICSSON, INC., AND NOKIA OF AMERICA
CORPORATION,
Petitioners

v.

ASUS TECHNOLOGY LICENSING INC.,
Patent Owner.

Case No. IPR2024-01142
U.S. Patent No. 10,887,868

PATENT OWNER PRELIMINARY RESPONSE

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I. INTRODUCTION

Challenged independent claims 5 and 13 of U.S. Patent No. 10,887,868 are directed to a method of beamforming where a selected network beam is used to derive a user equipment (UE) beam. The claimed method first selects a network beam, and then derives a UE beam based on a beam reference signal of the network beam.

The Petition fails to show that the alleged prior art suggests these steps. As explained further below, the art does not “derive” a UE beam based on the beam reference signal of the selected network beam. Instead, the art selects a beam pair comprising both a network beam and a UE beam based on a reference signal. Thus, the art selects both the network beam and the UE beam together (as a pair) and does not derive the UE beam from the selected network beam as claimed. The Petition therefore has not shown that this element is rendered obvious by the prior art and the Board should deny institution.

II. BACKGROUND

A. The '868 Patent

U.S. Patent 10,887,868 is titled “Method and apparatus for transmission or reception using beamforming in a wireless communication system” and is directed to methods of deriving a user equipment (UE) beam. EX1001, abstract. The

specific manner of deriving a UE beam is illustrated in (by way of example) Figs. 21 and 22:

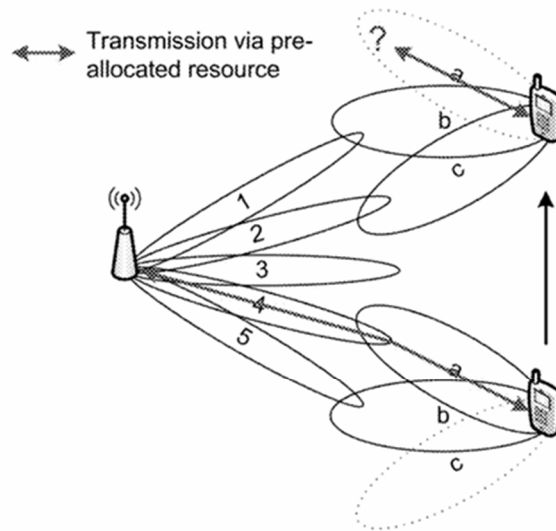


FIG. 21

EX1001, Fig. 21. On the left, Fig. 21 shows a network node transmitting multiple network beams 1-5. EX1001, 12:39-42. On the right, Fig. 21 shows a user equipment (UE) moved from a first position to a second position transmitting multiple UE beams a-c. *Id.* A specific network beam (here, network beam 4) is selected and, based on that selection, the method derives a UE beam (here, UE beam a).

Fig. 22 provides further details on the deriving step:

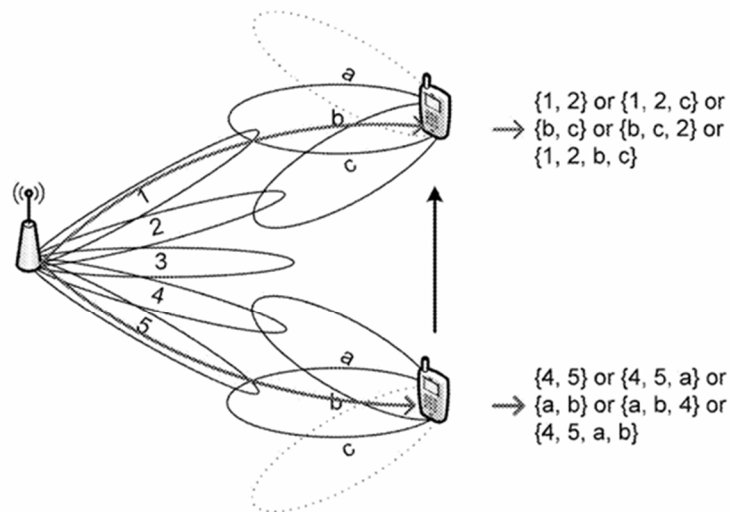


FIG. 22

The network node on the left transmits multiple candidate network beams 1-5.

EX1001, 11:61-12:2. The network chooses a network beam from among the candidate network beams 1-5 for the UE to derive a corresponding UE beam among the candidate UE beams a-c. EX1001, 12:2-5. “For example, after the UE moves as shown in FIG 21, the network can indicate to the UE that beams b and c are candidates and that beam b is the special UE beam by providing the special UE beam indication via beam 1 [the network beam] with the indication being received by the UE via beam b.” EX1001, 11:64-12:2. “The UE may determine the special UE beam(s) by measuring signal of the special network beam(s).” EX1001, 12:8-

11. “By this way, the mapping between the UE beam(s) and the network beam(s) is known to the UE.” EX1001, 12:14-15.

B. The Alleged Prior Art

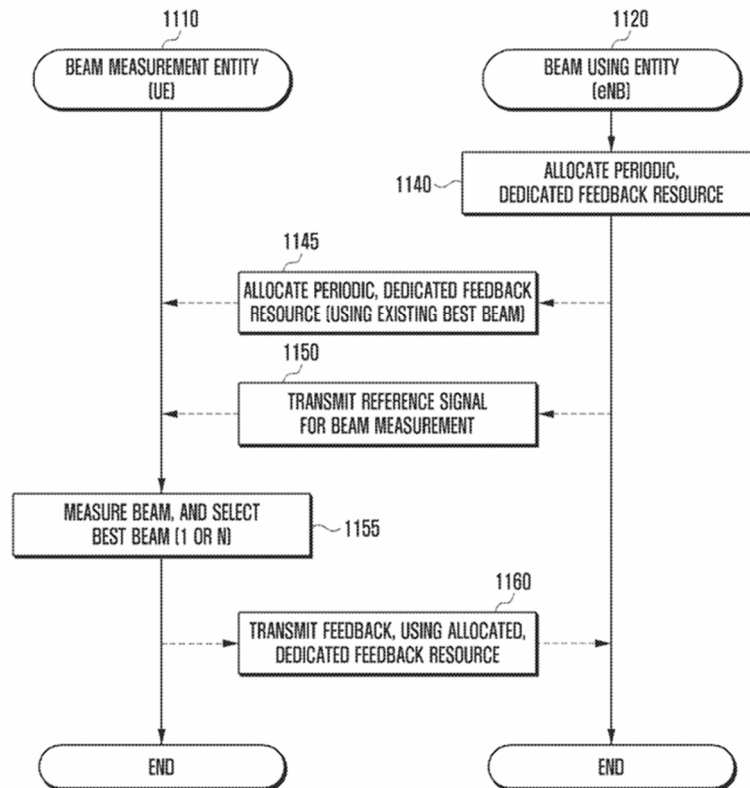
The Petition asserts the following two grounds of invalidity:

- Obviousness of claims 5, 6, 8, 13, 14, 16, and 18 in view of U.S. Patent No. 11,539,419 (“Jung”)
- Obviousness of claims 5, 6, 8, 13, 14, 16, and 18 in view of Jung and U.S. Patent No. 11,096,195 (“Xiong”)

1. Jung

U.S. Pat. No. 11,539,419 (“Jung”) is directed to methods of beam-tracking and beam feedback operation in a beam-forming based system. EX1005, abstract. Relevant to this proceeding, Jung teaches that a UE selects the best beam pair comprising an evolved node B (eNB) beam and a user equipment (UE) beam based on a reference signal transmitted by the eNB. *Id.*, 21:3-32. This is illustrated by Fig. 11:

FIG. 11



EX1005, Fig. 11. “The beam measurement entity 1110 measures a beam in operation 1155. The beam measurement entity 1110 is capable of selecting a best beam based on the beam measurement result.” *Id.*, 21:3-32.

Jung confirms that the “best beam” as used in Fig. 11 refers to a beam pair comprising an eNB beam and a UE beam:

In the following embodiments of the present disclosure, when one beam of a beam measurement entity and one beam of a beam using entity, which may be estimated to have the best performance, are determined from among the analogue beams that a beam measurement entity and a beam using entity can use, **the two beams of the two entities form one beam pair** (or beam pairs), **which is called ‘best beam** (or best beams).’ Alternatively, **the ‘best beam (or best beams)’ may also be referred to as two individual beams of the beam pair (or beam pairs).**

EX1005, 12:15-23 (emphasis added). In this paragraph, Jung defines a “best beam” as a beam pair comprising a network beam and a UE beam together. Jung explicitly states that “the two beams[] form one beam pair[] which is called ‘best beam’.” *Id.*

Furthermore, Jung later confirms that the beam measurement entity of the UE identifies the best beam pair of both a eNB beam and a UE beam—not a UE beam alone: “The beam measurement entity may notify all beam using entities of information regarding **the best beam pair** (or beam pairs) as feedback.” EX1005, 35-38.

2. Xiong

U.S. Pat. No. 11,096,195 (“Xiong”) is directed to sending scheduling requests in a system using beamforming. EX1005, abstract. Relevant to this

proceeding, Xiong Fig. 4 shows a “flow diagram of a scheduling request transmission”:

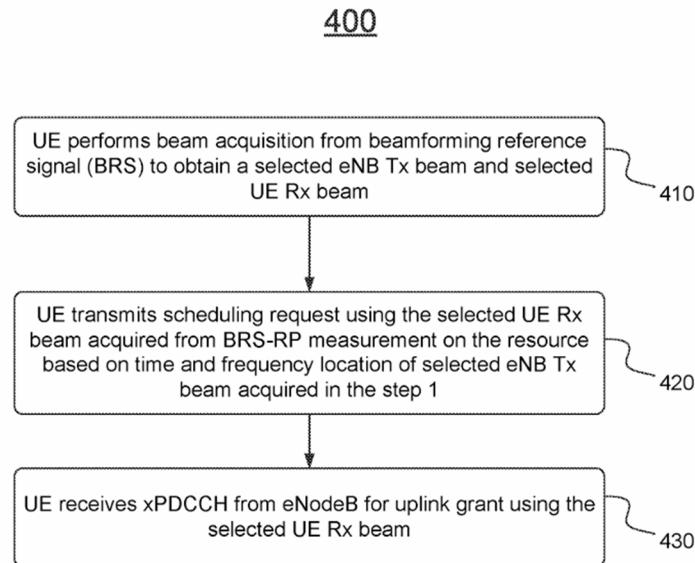


FIG. 4

EX1007, Fig. 4, 1:58-61. Fig. 4 includes a step 410 where the “UE performs beam acquisition from beamforming reference signal (BRS) to obtain a selected eNB Tx beam and selected UE Rx beam.” EX1007, Fig. 4, 5:64-6:2. Xiong describes step 410 as a single step where the UE selects both the eNB Tx beam and the UE Rx beam: “In particular, at block 410, the UE can perform beam acquisition from beamforming reference signal (BRS) to obtain a selected eNB Tx beam and corresponding UE Rx beam.” EX 1007, 5:64-6:2; 5:53-57 (“As compared to a

legacy SR procedure in 3GPP LTE, embodiments of the present technology enable a beam reference signal (BRS) to be transmitted from an eNodeB to allow the UE to measure the BRS received power (BRS-RP) and obtain a selected eNodeB Tx beam and UE Rx beam.”).

III. CLAIM CONSTRUCTION

The Petition submits that “the Board does not need to expressly construe any terms.” Pet., 21. Patent Owner proposes that the term “to derive, based on a beam reference signal of the network beam, a UE beam” should mean “selecting a UE beam from a plurality of candidate UE beams based on a beam reference signal of the network beam.” Although Patent Owner’s primary argument does not turn on any specific construction of this term, this construction elucidates the distinction between the ’868 Patent and the alleged prior art from the reasons to be discussed in Section IV.

Patent Owner’s construction is supported by the specification. As described in Section II.A, ’868 Patent teaches that the invention selects a network beam from among candidate network beams and then uses a beam reference signal of the selected network beam to select a UE beam from among candidate UE beams. EX1001, 12:2-5. This is illustrated by way of the example of Fig. 22:

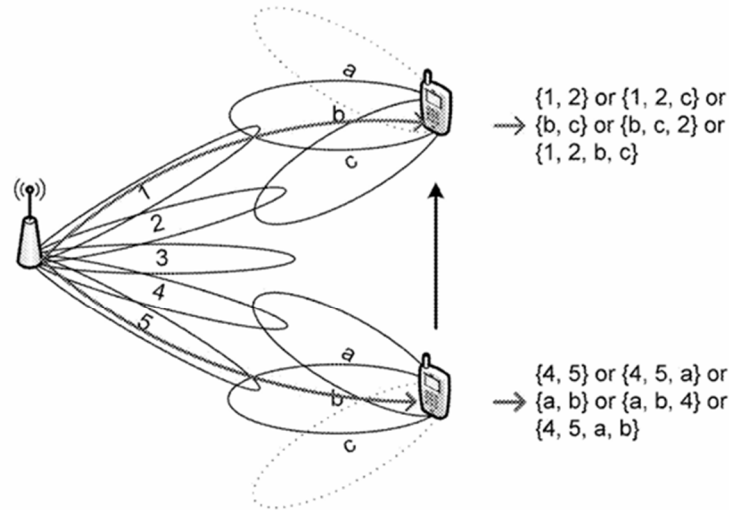


FIG. 22

EX1001, Fig. 22. Here, a network node transmits multiple candidate network beams 1-5. EX1001, 12:2-5. A UE transmits multiple candidate UE beams a-c. *Id.* One of the candidate network beams is selected, and a beam reference signal of the selected network beam is used to select a UE beam from the candidate UE beams. *Id.*, 11:65-12:2 (“For example, after the UE moves as shown in FIG 21, the network can indicate to the UE that beams b and c are candidates and that beam b is the special UE beam by providing the special UE beam indication via beam 1 [the network beam] with the indication being received by the UE via beam b.”). This is further illustrated by exemplary Fig. 21:

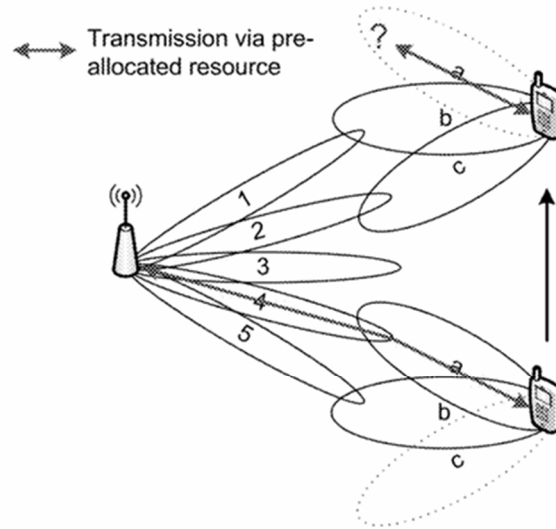


FIG. 21

EX1001, Fig. 21. Again, the deriving step requires selecting one of a plurality of UE beams based on the network beam. EX1001, 12:39-42.

Read in light of the specification, deriving a UE beam based on a beam reference signal of the network beam must therefore mean selecting the UE beam from a plurality of UE beams based on a beam reference signal of the network beam.

IV. CLAIMS 5, 6, 8, 13, 14, 16, AND 18 ARE NOT OBVIOUS IN VIEW OF JUNG AND XIONG

Claims 5 and 13 are directed to an ordered series of steps that begins by “selecting a network beam.” Once the network beam has been selected, the claims then require deriving a UE beam based on a beam reference signal of the network beam. In other words, the claims require a first step that selects a network beam and then a second step that derives a UE beam based on the network beam.

Fig. 22 illustrates these steps:

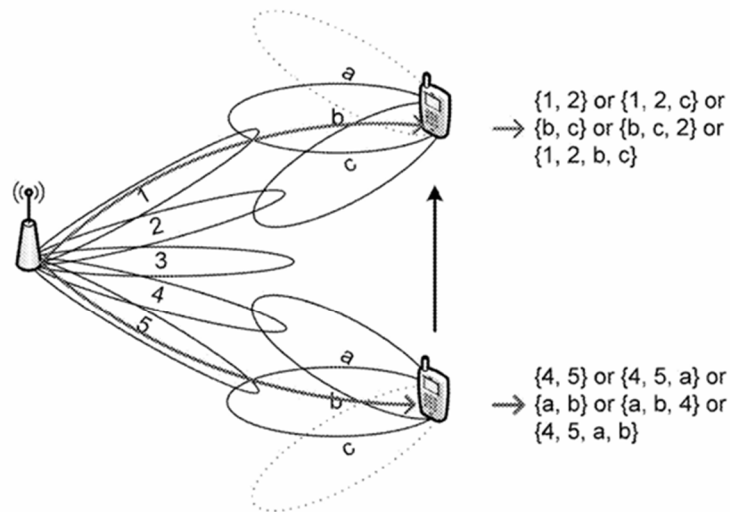


FIG. 22

The network node on the left transmits multiple candidate network beams 1-5.

EX1001, 11:61-12:2. The network chooses a network beam from among the

candidate network beams 1-5 (i.e., the claimed “selecting a network beam” step) for the UE to derive a corresponding UE beam among the candidate UE beams a-c (i.e., the claimed “deriv[ing], based on a beam reference signal of the network beam, a UE beam” step). EX1001, 12:2-5. “For example, after the UE moves as shown in FIG 21, the network can indicate to the UE that beams b and c are candidates and that beam b is the special UE beam by providing the special UE beam indication via beam 1 [the network beam] with the indication being received by the UE via beam b.” EX1001, 11:64-12:2. “The UE may determine the special UE beam(s) by measuring signal of the special network beam(s).” EX1001, 12:8-11. “By this way, the mapping between the UE beam(s) and the network beam(s) is known to the UE.” EX1001, 12:14-15.

The Petition identifies Jung’s teaching of “determining a best beam comprising two entities that form one beam pair: an network beam and a UE beam” (Pet., 42, 38-43) and Xiong’s Fig. 4 disclosure of “obtain[ing] a selected eNB Tx beam and a selected UE Rx beam” in step 410 (Pet., 62-63) as suggesting the claimed “deriv[ing]” step. Jung and Xiong, however, do not perform the claim steps as arranged.

First, neither Jung nor Xiong “derive[s]” a UE beam based on the network beam or its beam reference signal. Rather, Jung teaches using a reference signal to

select a **beam pair** comprising **both** a network beam and a UE beam. Indeed, the Petition concedes this: Jung teaches “determining a best beam comprising two entities that form one beam pair: an network beam and a UE beam.” Pet., 42. Jung’s teaching of selecting a “best beam” cited by the Petition at 31-32 further confirms this understanding:

In the following embodiments of the present disclosure, when one beam of a beam measurement entity and one beam of a beam using entity, which may be estimated to have the best performance, are determined from among the analogue beams that a beam measurement entity and a beam using entity can use, **the two beams of the two entities form one beam pair** (or beam pairs), **which is called ‘best beam** (or best beams).’ Alternatively, **the ‘best beam (or best beams)’ may also be referred to as two individual beams of the beam pair (or beam pairs).**

EX1005, 12:15-23 (emphasis added). In this paragraph, Jung defines a “best beam” as a **beam pair** comprising a network beam and a UE beam **together**. Jung explicitly says “the two beams[] form one beam pair[] which is called ‘best beam’.” *Id.*

When the remainder of this paragraph is read in view of this explicit definition, it becomes apparent that Jung’s teaching of selecting the best beam

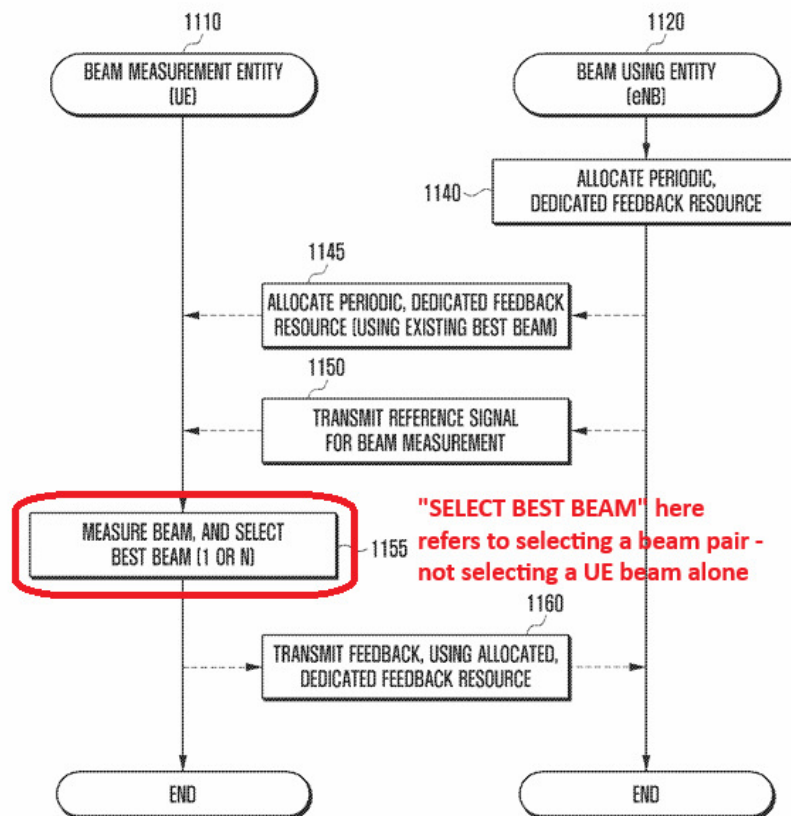
refers to selecting the best beam pair (comprising both a network beam and a UE beam):

In an embodiment of the present disclosure, the **'best beam'** is referred to as a beam with the best performance that a beam using entity (eNB) uses to communicate with a beam measurement entity (UE), from **among a pair of best beams** measured according to reference signals transmitted by the beam using entity (eNB), however, it should be understood that the present disclosure is not limited to the best beam as defined above.

EX1005, 12:23-32 (emphasis added). The selection of a beam pair (rather than a UE beam based on a network beam) is reiterated in the sentence immediately following this paragraph: "The beam measurement entity may notify all beam using entities of information regarding **the best beam pair** (or beam pairs) as feedback." EX1005, 35-38.

This definition must also apply to Jung Fig. 11:

FIG. 11



EX1005, Fig. 11 (annotated). When step 1155 states “measure beam, and select best beam (1 OR N)”, “select the best beam” as used in this step refers to selecting a beam pair comprising both a network beam and a UE beam – not selecting a UE beam alone.¹

¹ Notably, this is also illustrated as a single step – not two steps as claimed.

Because Jung defines the “best beam” as a beam pair comprising both a network beam and a UE beam, Jung does not teach selecting a specific network beam alone or selecting a specific UE beam alone. Rather, Jung teaches selecting a beam pair comprising both a network beam and a UE beam together, in a single selection step. As such, Jung cannot teach ordered steps where the network beam is selected first and then the UE beam is derived from the beam reference signal of the network beam. Jung instead teaches that both the network beam and the UE beam are selected together as a single beam pair (the “best beam”) in a single selection step. Jung’s single selection step cannot map to a selection step and then a deriving step using the network beam selected in the selection step as claimed. There is no teaching in Jung that the UE beam is selected based on the reference signal of the network beam—nor could there, if both the network beam and the UE beam are selected together in a single step.

Xiong—like Jung—suffers from the same deficiency. Xiong explicitly teaches that the UE selects a network beam and a UE beam together in a single step 410: “In particular, at block 410, the UE can perform beam acquisition from beamforming reference signal (BRS) **to obtain a selected eNB Tx beam and corresponding UE Rx beam.**” EX 1007, 5:64-6:2; 5:53-57 (“As compared to a legacy SR procedure in 3GPP LTE, embodiments of the present technology enable

a beam reference signal (BRS) to be transmitted from an eNodeB to allow the UE to measure the BRS received power (BRS-RP) and **obtain a selected eNodeB Tx beam and UE Rx beam.**”). Xiong Fig. 4 confirms selection of both the network beam and the UE beam in a single step 410:

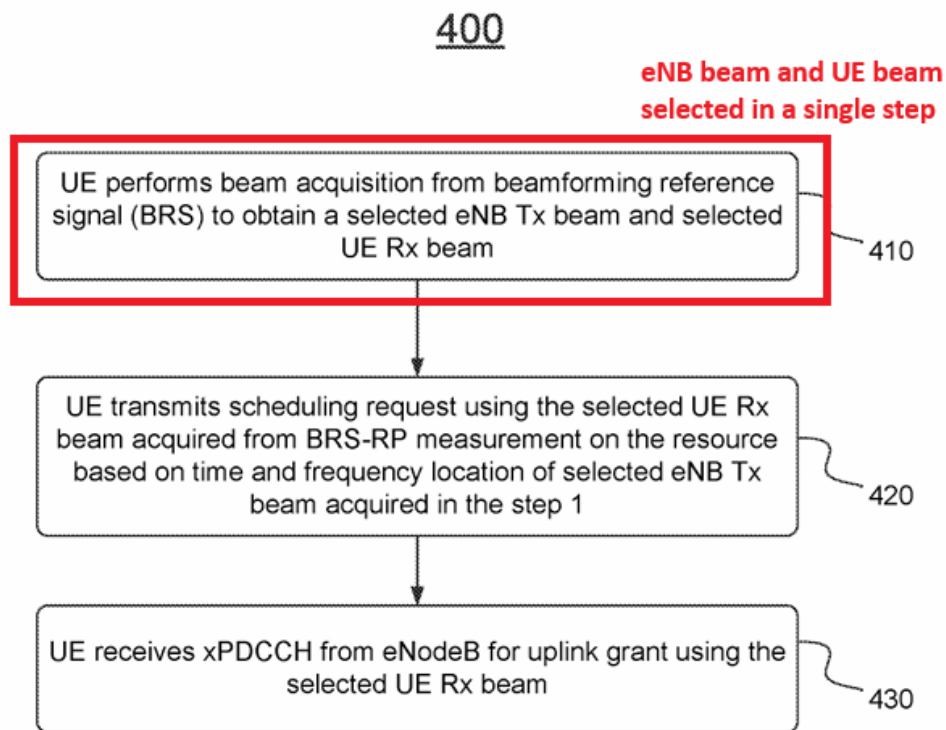


FIG. 4

EX1007, Fig. 4 (annotated). The Petition does not cite a single example in Xiong where the network beam is selected in a first step and the UE beam is then selected

in a second step based on the network beam as claimed (nor does Xiong disclose such an example). Thus, like for Jung, Xiong cannot teach the claimed ordered steps because it instead teaches selection of both the network beam and the UE beam in a single step. Jung's single selection step cannot map to a selection step and then a deriving step using the network beam selected in the selection step as claimed. There is simply no teaching in Xiong that the UE beam is selected based on the reference signal of the network beam—nor could there, if both the network beam and the UE beam are selected together in a single step. Thus, Jung and Xiong select both the network beam and the UE beam together (as a pair) and do not derive the UE beam from the selected network beam as claimed.

Second, under the proper construction of “derive,” neither Jung nor Xiong derives a UE beam “based on a beam reference signal of the network beam” because, as explained above for both cases, Jung and Xiong's UE beams form a beam pair with the network beam. Because both of their UE beams are part of a beam pair with the network beam, their UE beams have a one-to-one correspondence with the network beam. Thus, Jung and Xiong's UE beams are not selected from a plurality of UE beams based on the network beam, as required by the '868 Patent claims' recital of “deriv[ing], based on a beam reference signal of the network beam, a UE beam.” In other words, the UE beams in Jung and Xiong

are not “derived” from a network beam because selection of the network beam automatically determines the corresponding UE beam. Unlike the ’868 Patent, which selects among a plurality of candidate UE beams based on the beam reference signal of the network beam, in Jung and Xiong the UE beam is fixed by the selection of the network beam. Jung and Xiong’s UE beams are not selected from a plurality of candidate UE beams based on the beam reference signal as required by the proper construction of “deriv[ing], based on a beam reference signal of the network beam, a UE beam.”

Accordingly, the Petition fails to show that Jung and Xiong suggest “transmitting a first signal to a user equipment (UE) to indicate a first information associated with the network beam for the UE to derive, based on a beam reference signal of the network beam, a UE beam” and institution must be denied.

V. THE BOARD SHOULD EXERCISE DISCRETION UNDER SECTION 314 AND DENY INSTITUTION

The Board should deny institution under 35 U.S.C. §314 because all six *Fintiv* factors favor discretionary denial. There is no requirement that the Board institute IPR. *See, e.g., Harmonic Inc. v. Avid Tech.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). “[T]he PTO is permitted, but never compelled, to institute an IPR

proceeding.” *Id.* Rather, the decision to institute is delegated to the Board and is purely discretionary.

35 U.S.C. §314(a) gives the Board discretion to deny institution because of efficiency considerations stemming from parallel proceedings on the same patent. *See NHK Spring Co. v. Intri-Plex, Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential, designated May 7, 2019) (“*NHK Spring*”). The PTAB has set forth six factors for determining whether discretionary denial due to efficiency considerations relating to parallel proceedings is appropriate (the “*Fintiv* factors”):

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner(s) and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”), 6; *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 (PTAB May 13, 2020) (order denying institution) (informative, designated July 13, 2020) (“*Fintiv II*”), 7-8.

When she was the Director, Katherine Vidal issued interim guidance on the application of *Fintiv*. See Katherine K. Vidal, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (June 21, 2022)² (“*Fintiv Memo*”); see also *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021- 01064, Paper 102, 49–50 (PTAB Oct. 4, 2022) (precedential) (“*OpenSky*”) and *CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022- 01242, Paper 23 (PTAB Feb. 27, 2023) (precedential) (“*CommScope*”). Under the interim *Fintiv Memo*, if the Board “determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*.” Interim *Fintiv Memo*, 4–5. However, *OpenSky* and

² Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf

CommScope make clear that the compelling merits standard is a significantly higher standard than the institution standard, requiring that it be “highly likely that the petitioner would prevail with respect to at least one challenged claim.”

OpenSky, 49; *CommScope*, 3–4. Further, “compelling merits” should be considered only after a determination that the first five *Fintiv* factors favor discretionary denial. *CommScope*, 4–5. Regardless, Director Vidal’s Interim Procedure has no force now that she has resigned without codifying her interim procedure with rulemaking.

Here, all six *Fintiv* factors weigh in favor of discretionary denial and there are no “compelling merits” or a *Sotera*-type stipulation. Accordingly, the Board should exercise its discretion and deny institution.

A. Factor 1

The first *Fintiv* factor—regarding whether a stay exists or is likely to be granted if a proceeding is instituted—weighs in favor of denial. No motion to stay pending the institution decision has been filed in the litigations. The district court has an established practice not to stay litigations pending resolution of inter partes review prior to institution. *Viavi Sols. Inc. v. Zhejiang Crystal-Optech Co.*, No. 2:21-CV-00378-JRG, 2022 WL 16856099, at *5 (E.D. Tex. Nov. 10, 2022) (“It is the Court’s established practice to consider that motions to stay pending IPR

proceedings which have not been instituted are inherently premature and should be denied as such.”).

Even post-institution, the district court judge is unlikely to stay the case absent agreement from the parties. EX2005, 3 (showing 15% win rate on contested motions to stay pending IPRs in the ED Tex). Thus, this factor weighs in favor of denial.

B. Factor 2

The second *Fintiv* factor—the proximity of the court’s trial date to the Board’s projected statutory deadline for a Final Written Decision—weighs in favor of denial. The Notice of Filing Date Accorded to Petition was mailed on August 15, 2024. Paper 7, 1. A Final Written Decision will therefore be due by February 15, 2026. *See* 35 U.S.C. §314(b); 35 U.S.C. §316(a)(11). Jury selection in the district court litigation is scheduled to begin on July 21, 2025. EX1010, 1. Thus, a final written decision will likely issue seven months or more after the trial.

Further, under the interim *Fintiv Memo*, the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides. *Id.*, 4-5. The current median time to trial in the Eastern District of Texas is 21.6 months. EX2006, 35. The district court litigations were filed on October 19, 2023. Paper 8, 2-3. Under these statistics, trial would be expected July

or August 2025. Thus, using either the actual scheduled trial date in this matter or the median time-to-trial statistics for the Eastern District of Texas, trial is expected to conclude six months or more before a final written decision is due in this matter.

Under *Fintiv* factor 2, this weighs heavily in favor of discretionary denial. *See Fintiv I*, 9 (“If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this factor in favor of exercising authority to deny institution under NHK.”); *Ericsson Inc. et al v. Collison Communications, Inc.*, IPR2022-01233, Paper 12 at 12-13 (PTAB Jan. 19, 2023) (holding Factor 2 “weighs in favor of denying institution, given that we would not expect to issue a final written until at least four months” after trial). Further, granting institution here would frustrate one of the primary objectives of the AIA, which is “to provide an effective and efficient alternative” to parallel litigation. *NHK Spring*, 19-20 (quoting *General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19, 15-19 (PTAB Sept. 6, 2017) (precedential, designated Oct. 18, 2017)). If IPR were instituted, any potential FWD would issue well after trial concludes. Thus, instituting IPR here cannot be viewed as an “alternative” to litigation. Rather, it would simply be more litigation.

Petitioners cite *Hulu, LLC v. SITO Mobile R&D IP, LLC*, IPR2021-00298, Paper 11 at 11-18 (PTAB May 19, 2021) and *NetNut Ltd. v. Bright Data Ltd.*,

IPR2021-01492, Paper 12 at 9-16 (PTAB Mar. 21, 2022) to argue that “[t]he Board has granted institution in cases where the final written decision issued a few months after the scheduled trial date when other factors favor institution.” Pet., 72. In both cases, several factors weighed in favor of institution. Here, no factors weigh in favor of institution.

Petitioners also cite *CrowdStrike, Inc. v. Open Text Inc.*, IPR2023-00556, Paper 9 at 8 (PTAB Sept. 12, 2023) to argue that the Board treats factor 2 as neutral where Petitioners will have multiple trials (Pet., 72), but in *CrowdStrike*, the trials started “a few weeks earlier than the projected statutory deadline.” *Id.* Here, the projected statutory deadline will be six months after the scheduled trials. Thus, *CrowdStrike* does not support Petitioners’ position. Factor 2 therefore weighs in favor of denying institution.

C. Factor 3

The third *Fintiv* factor—which relates to “the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision” (*Fintiv I* at 9)—also favors denial. Significant amounts of work have been completed in the district court. The parties have completed their P.R. 3-1 and 3-2 disclosures (Infringement Contentions), their P.R. 3-3 and 3-4 disclosures (Invalidity Contentions), and have exchanged claim constructions.

EX1010, 5-6. The institution decision is expected no later than January 31, 2025.

See 35 U.S.C. §314(b). By that date, the parties will have submitted their opening claim construction briefs, completed claim construction discovery, and submitted technical tutorials. EX1010, 4-5. The Markman hearings in the district court litigations are scheduled for January 22, 2025 and February 5, 2025, respectively.³

EX1010, 3. The ordinary practice of this district court is to provide preliminary constructions at or shortly before the *Markman* hearing. Thus, significant substantive work will have already been completed in the district court litigation by the expected time of the institution decision. *See Fintiv II*, 14 (“based on the level of investment and effort already expended on claim construction and invalidity contentions in the District Court, this factor weighs somewhat in favor of discretionary denial in this case.”).

³ The district court split the deadlines for the district court cases into two tracks—the “ATL cases” (including cases 2:23-cv-486, 2:23-cv- 487, and 2:23-cv-488) and the “ISL cases” (including cases 2:23-cv-489, 2:23- cv-490, and 2:23-cv-491).

EX1010, 2 n.2. The ATL schedule is roughly two weeks ahead of the ISL schedule.

Petitioners argue that their “diligence in filing and the district court’s minimal investment tips this factor in favor of institution.” Pet., 73. But the Petition measures investment at the time the IPRs were filed, not (as required by *Fintiv*) at the time of the institution decision. As discussed above, by the time of the institution decision, claim construction will be nearly complete and significant discovery will have taken place.

Further, the Petition was filed on July 26, 2024. Paper 1, 77. Infringement contentions were filed January 4, 2024. EX1010, 6. Thus, Petitioners waited approximately five months from receiving infringement contentions to file the Petition. Indeed, Petitioners filed their own invalidity contentions on April 12, 2024 and then waited another seven weeks before filing this Petition. EX1010, 5. These timelines show more delay than any case Petitioner cites. Accordingly, factor 3 weighs in favor of non-institution.

D. Factor 4

The fourth *Fintiv* factor—which relates to overlap between issues raised in the petition and in the parallel proceeding—also weighs in favor of denying institution. “[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv* at 12. Claims 5, 6, 8, 13, 14, 16, and 18 challenged in

this IPR are also asserted in the District Court litigation. EX2007, 2. Petitioners identify Xiong and U.S. Patent Publication No. 2017/0207843 to Jung (the parent of the Jung '419 Patent asserted here) as prior art in the District Court litigation. EX2007, 11. Thus, Petitioners rely on the same prior art teachings for the same claims in both proceedings.

The Petition stipulates that “if trial is instituted, Petitioners will not pursue this IPR’s Grounds in the district court litigation.” Pet., 74. The PTAB has classified such stipulations as “*Sand Revolution*”-style stipulations after the stipulation filed in *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 (PTAB June 16, 2020), where Petitioner filed a stipulation that it “will not pursue the same grounds in district court litigation.” *Id.* at 11-12. The PTAB has routinely found similar stipulations weigh only “marginally in favor of not exercising discretion to deny institution.” *Id.*, 12; *LG Elecs., Inc. v. Ancora Techs., Inc.*, IPR2021-00581, Paper 16, 9-10 (PTAB June 10, 2021) (same); *Google LLC v. EcoFactor Inc.*, IPR2021-00454, Paper 9 (PTAB July 22, 2021) (same); *Samsung Electronics Co. Ltd. v. California Institute of Tech.*, IPR2023-00130, Paper 10, 19-20 (PTAB May 4, 2023) (same); *Roku, Inc. v. IOENGINE, LLC*, IPR2022-01554, Paper 11, 13-14 (PTAB May 5, 2023) (same).

The Board historically assigns almost no weight to *Sands Revolution* style stipulations such as the one Petitioner filed here. This is because *Sands Revolution*-style stipulations do little to eliminate overlap with the district court litigations. Petitioners' stipulation does nothing to prevent the alleged prior art references asserted in the Petition from being re-used in substantially the same form in the litigation by combining them with different secondary references. Indeed, Petitioners' invalidity contentions reserve the right to do so. See, e.g., EX2007, 12 (“Any prior art reference cited herein may be combined with any other reference to demonstrate the invalidity of any of the Asserted Claims.”). Thus, the stipulation here is almost meaningless.

Further, the Board has often denied institution in situations like the present where the other factors clearly favored non-institution, even where Petitioners offered stronger stipulations than the one offered here. For example, in *LG Elecs., Inc. v. Ancora Techs., Inc.*, No. IPR2021-00581, Paper 16, 9-10 (PTAB June 10, 2021), the Board denied institution despite the petitioner's stipulation “it will not subsequently assert invalidity in the district court on the same grounds asserted in the IPR or on the basis of the Hellman reference, either alone or in combination with any other reference.” *Id.* Unlike Petitioners' stipulation here, the petitioner in *Ancora* agreed to a blanket stipulation not to assert the primary referenced Hellman

under any circumstance. The Board there agreed with the patent owner that, even with the petitioner's stipulation, "there is significant overlap between the issues raised in the Petition and in the parallel district court proceeding." *Id.* Similarly, in *Samsung Electronics Co., Ltd. v. California Institute of Technology*, IPR2023-00130, Paper 10 (PTAB May 4, 2023), the Board denied institution notwithstanding a stipulation it characterized as "broader to some degree than the stipulation discussed in *Sand Revolution*" because "the trial in the Underlying Litigation would commence several months before the expected date of our final written decision" and there had been significant investment in the litigation. *Id.*, 16-20.

The facts here are stronger than *Ankora* and *Samsung*. Petitioners offer a near-meaningless stipulation that does not outweigh the other factors.

E. Factor 5

The fifth *Fintiv* factor—whether the petitioners and the defendant in the parallel proceedings are the same parties—weighs in favor of discretionary denial. The parties here are the same as the parties in the litigations. *Fintiv II*, 15 ("Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.").

F. Factor 6

The sixth *Fintiv* factor—relating to other circumstances that impact the Board’s exercise of discretion, including the merits—weighs in favor of discretionary denial. As demonstrated in Section IV above, the Petition fails to show that Jung and Xiong suggest “transmit a first signal to a user equipment (UE) to indicate a first information associated with the network beam for the UE to derive, based on a beam reference signal of the network beam, a UE beam.” There is no reasonable likelihood of success, much less the high likelihood of success required to show “compelling merits.” *See Fintiv I*, 15 (“if the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present”); *Commscope Technologies LLC, v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23, 5 (precedential) (“Merely pointing to [] analysis under the lower institution standard is insufficient to demonstrate that the Petition presents a compelling unpatentability challenge.”).

Petitioners’ allegations that the Petition shows “compelling merits” (Pet., 75) are based solely on their attorney argument repeating their §314 analysis and should be rejected as in *Commscope*. Petitioners’ allegations essentially “point[] to its analysis under the lower §314 standard.” *Commscope*, IPR2022-01242, Paper

23. *See* Pet., 75. Petitioner does not elaborate on why the merits here are “compelling.” Such generic allegations do not rise to the level of compelling merits. *See, e.g., OpenSky* at 49 (“a compelling-merits challenge is a higher standard than the reasonable likelihood required for the institution of an IPR under 35 U.S.C. §314(a).”). Thus, this factor favors discretionary denial.

Accordingly, all six *Fintiv* factors weigh in favor of discretionary denial. The Board should use its discretion to deny institution of this IPR.

VI. CONCLUSION

For the foregoing reasons, the Board should deny institution.

Dated: November 15, 2024

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner Preliminary Response consists of 5,538 words, excluding table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The Response complies with the type-volume limitation of 14,000 words as set forth in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

Dated: November 15, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on November 15, 2024, a copy of the foregoing documents **PATENT OWNER PRELIMINARY RESPONSE AND EXHIBITS** were served by electronic mail, as consented to by Petitioner, upon the following:

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