

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. IPR2024-01121
U.S. Patent No. 10,148,402

PATENT OWNER PRELIMINARY RESPONSE

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I. INTRODUCTION

Challenged independent claims 1 and 12 of U.S. Patent No. 10,148,402 (the “’402 Patent”) claim the two-step method of Fig. 10 where a base station (1) “transmits to a UE a control signal associated with a reference signal for beam measurement” and then (2) “transmits the reference signal for beam measurement to the UE.” The Petition relies solely on WO2017/142573A1 (“Moon”) to anticipate or render obvious the claimed two-step method. But as will be explained below, Moon at most discloses a single-step method where control information and a reference signal are in the same transmission. Because Moon’s single-step method cannot teach or suggest the claimed two-step method, the Board should deny institution.

II. BACKGROUND

A. The ’402 Patent

U.S. Patent 10,148,402 is titled “Method and apparatus for beam management in a wireless communication system” and describes methods for transmitting a reference signal from a base station to user equipment (UE). EX1001, abstract.

Figures 6-11 show various exemplary embodiments of transmitting the reference signal. For example, “FIG. 8 is a flow chart 800 according to one exemplary embodiment from the perspective of a base station”:

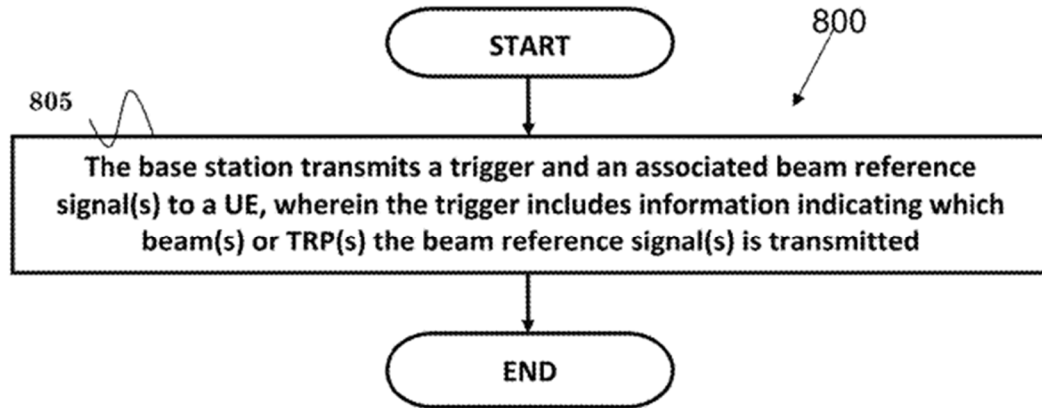


FIG. 8

EX1001, Fig. 8, 10:25-30. “In step 805, the base station transmits a trigger and an associated beam reference signal(s) to a UE, wherein the trigger includes information indicating which beam(s) or TRP(s) the beam reference signal(s) is transmitted.” *Id.*, 10:25-30. “In the context of [this embodiment], the UE could perform measurement on the beam reference signal(s) with UE beam(s) associated with the indicated beam(s) or the indicated TRP(s). The information could indicate beam id(s) or TRP id(s). The beam refinement or adjustment for the UE could be performed for the beam(s) or TRP(s) indicated by the information. The beam reference signal(s) could be aperiodic beam reference signal(s).” EX1001, 10:57-65. In this embodiment, “the trigger could be a control channel, a downlink assignment, an uplink grant, or a data channel.” EX1001, 10:66-67. Thus, the Fig.

8 embodiment is a single-step method where both the trigger and beam reference signal are transmitted from the base station to the UE at step 805. The trigger may be a control channel of the same transmission as the beam reference signal.

The '402 Patent also describes another embodiment as shown in Fig. 10:

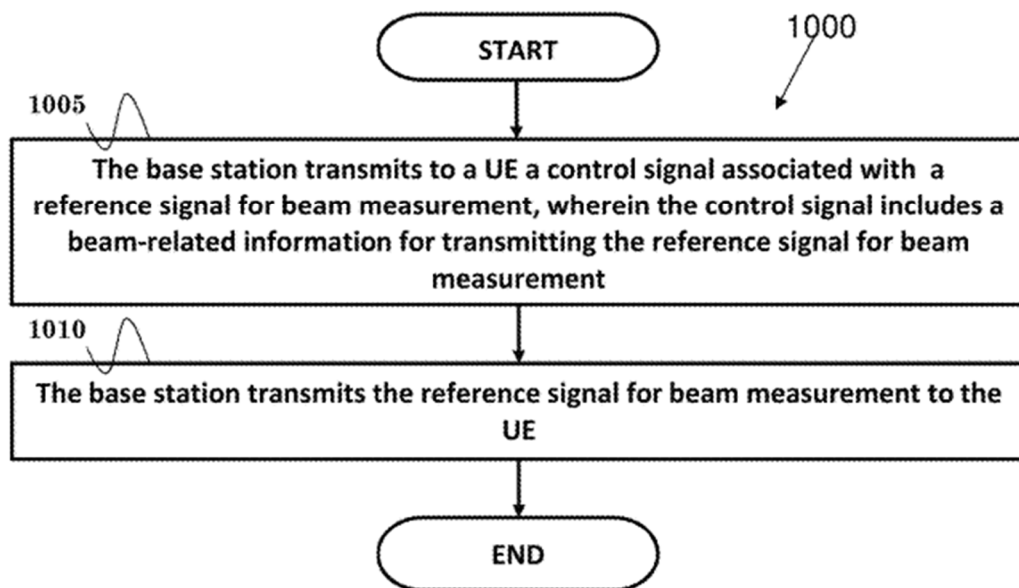


FIG. 10

“In step 1005, the base station transmits to a UE a control signal associated with a reference signal for beam measurement, wherein the control signal includes a beam-related information for transmitting the reference signal for beam measurement. In step 1010, the base station transmits the reference signal for beam measurement to the UE.” EX1001, 11:22-30. In the context of this embodiment,

“the beam-related information could indicate at least a beam on which the reference signal for beam measurement is transmitted. Alternatively or additionally, the beam-related information could indicate a first beam and the reference signal for beam measurement is transmitted on at least a refined beam of the first beam.” EX1001, 11:63-12:3. Thus, the Fig. 10 embodiment is a two-step method where the base station transmits the control signal to the UE at step 1005 and then transmits the reference signal to the UE at step 1010.

Finally, the '402 Patent states that one of ordinary skill would appreciate that these embodiments are “implemented independently” of each other. EX1001, 12:25-29.

B. The Alleged Prior Art - WIPO Publication No. WO2017/142573A1 (“Moon”)

The Petition asserts three grounds of invalidity, each relying on WO2017/142573A1 (“Moon”) as the primary reference to teach every element of independent claims 1 and 12. Moon describes techniques to configure “a user equipment (UE) for fifth generation (5G) Channel State Information (xCSI) Reference Signals (xCSI-RS)” (EX1005, abstract), including techniques that “can be employed that can facilitate control signaling for fifth generation Channel State Information (xCSI) Reference Signals (xCSI-RS).” EX1005, 37. Specifically,

Moon describes downlink transmissions comprising xCSI-RS using the subframe structure shown in Fig. 2 and Fig. 3. EX1005, [0038].

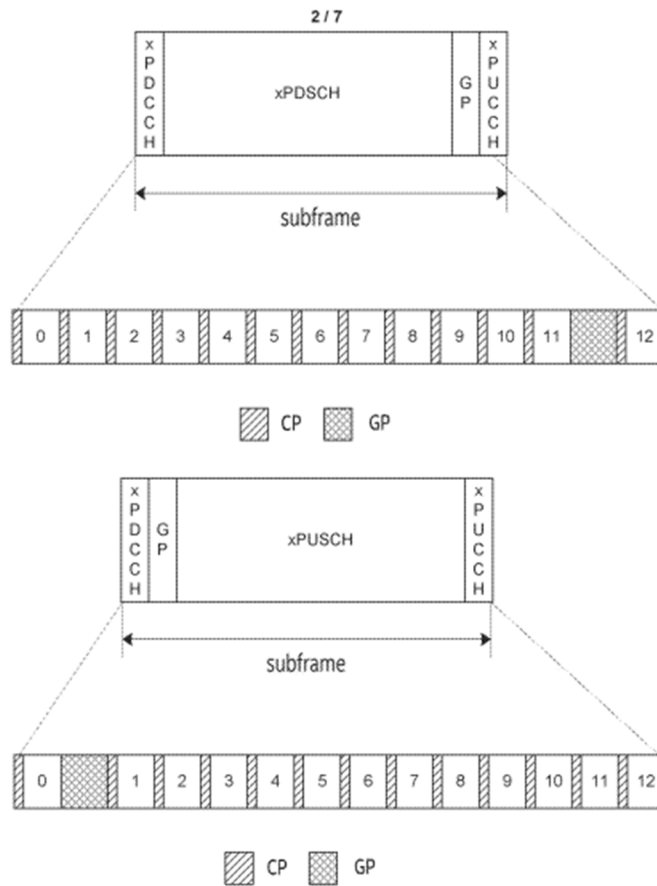


FIG. 2

In Fig. 2, a subframe *n* is divided into xPDCCH, xPDSCH, GP, and xPUCCH areas. *Id.* The xPDCCH area may include control messages such as DCI or RRC. EX1005, [0050] (“[T]he one or more control messages can comprise DCI message(s) transmitted via xPDCCH of subframe *n*. In the same or other aspects, the one or more control messages can comprise RRC message(s).”). Likewise,

“xCSI-RS can be located in the end of the xPDSCH area.” EX1005, [0038]. “[T]he DCI (downlink control information) for the triggering can include any of a variety of xCSI-RS configurations.” *Id.*, [0040]. The control messages of subframe n “indicate an xCSI-RS configuration for [the same] subframe n, where the xCSI-RS configuration can indicate the number of xCSI-RS symbols (M), and the location of the xCSI-RS symbols (e.g., symbols (10, 11), symbols (12, 13), symbol (11), etc.), and can optionally indicate additional information.” *Id.*, [0049]. Thus, in the example of Fig. 2, both the RRC/DCI control messages and the corresponding xCSI-RS are in the same subframe n.

Figure 3 provides another view of the subframe structure:

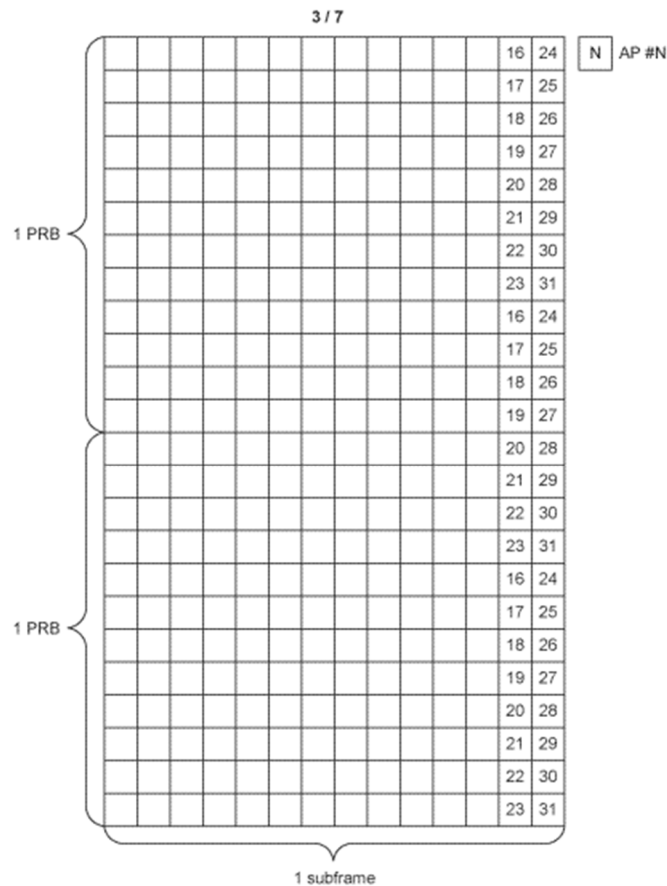


FIG. 3

“In the example shown in FIG. 3, the xCSI-RS is located in the last two DL OFDM (orthogonal frequency division multiplexing) symbols.” EX1005, [0038]. The Petition alleges that the first few symbols may carry DCI. Pet., 35. Therefore, the example of Fig. 3 also shows that DCI and xCSI-RS are both in “1 subframe.”

Thus, Moon exclusively teaches embodiments where RRC / DCI and xCSI-RS are in the same subframe n.

III. CLAIM CONSTRUCTION

The Petition submits that “the Board does not need to expressly construe any terms.” Pet., 22. For purposes of this preliminary response, Patent Owner’s position is that all terms are entitled to their plain and ordinary meaning as understood by a POSITA under the proper construction. *Supra*, §II.A.3. Patent Owner reserves the right to expressly construe terms of the ’402 Patent should the Board institute review.

IV. CLAIMS 1-4 AND 12-15 ARE NOT ANTICIPATED BY OR OBVIOUS IN VIEW OF MOON

Claims 1 and 12 recite a two-step method that requires the base station to separately transmit the control signal in the first step and the reference signal in the second step. In other words, the control signal must be a separate transmission from the reference signal.

This is readily apparent from the claim language. First, claim 1 recites in the first step that “the base station transmits to a UE a control signal associated with a reference signal for beam measurement.” Then, claim 1 separately recites in the second step that “the base station transmits the reference signal for beam measurement to the UE.” Furthermore, claim 1 separately requires that “the control signal triggers aperiodical transmission of the reference signal for beam

measurement”—confirming that the first step of transmitting the control signal “triggers” the second step of transmitting the reference signal for beam measurement. The use of the word “triggers” requires the two transmissions to be separate, and the second transmission to be predicated on the first transmission.

The specification further confirms this understanding. From their wording, claims 1 and 12 are unmistakably directed to the two-step embodiment of Fig. 10:

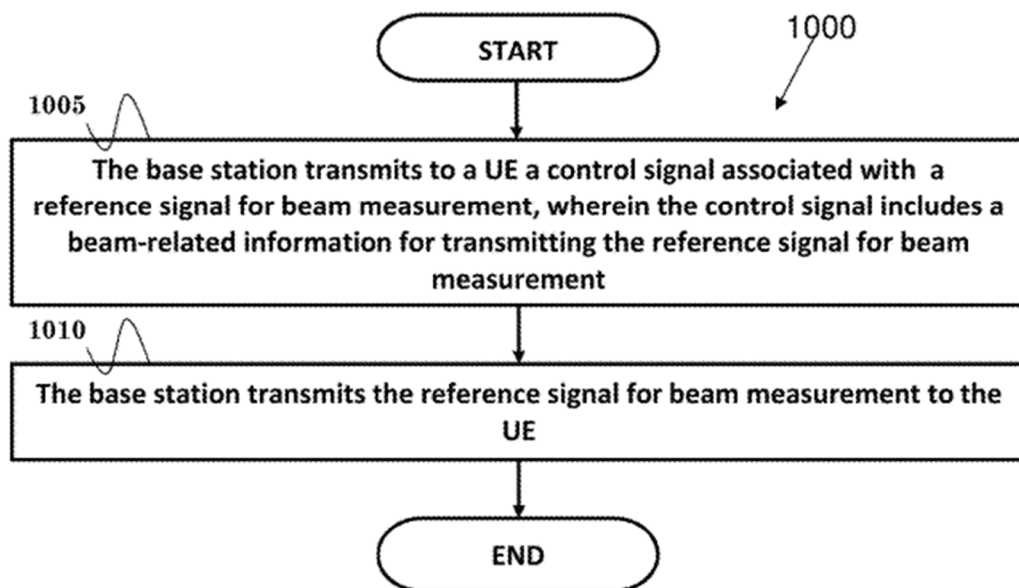


FIG. 10

Claim 1’s first step shares identical wording with and corresponds to step 1005 of Fig. 10. Likewise, claim 1’s second step shares identical wording with and

corresponds to step 1010 of Fig. 10. In this embodiment, the specification indisputably describes steps 1005 and 1010 as separate steps. EX1001, 11:22-30.

The claimed two-step embodiment shown in Fig. 10 is distinct from the single-step embodiment shown in Fig. 8:

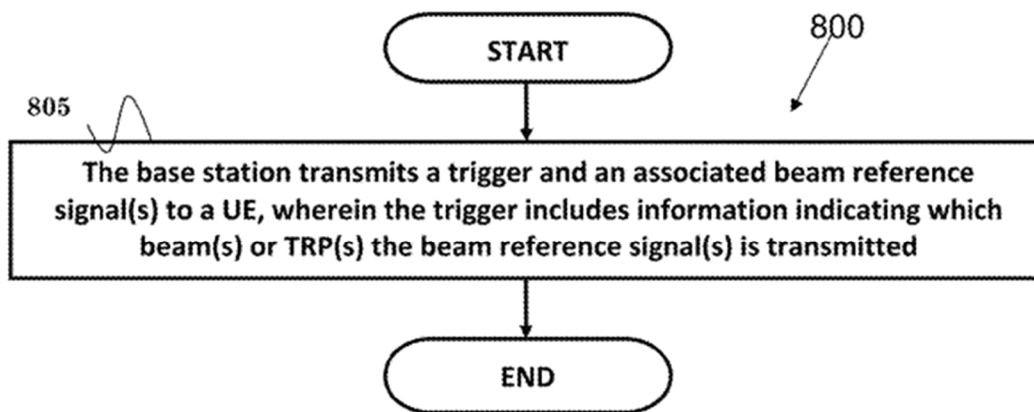


FIG. 8

Unlike the two-step method of Fig. 10, Fig. 8 shows an (unclaimed) single-step method where the base station transmits a trigger and an associated beam reference signal to the UE in a single step (i.e., together). The '402 Patent indisputably describes Fig. 8 and Fig. 10 as distinct embodiments. EX1001, 10:25-30 (describing Fig. 8 as an exemplary embodiment with a single step 805), 11:22-30 (describing Fig. 10 as another exemplary embodiment with two steps 1005 and 1010).

The Petition fails to show Moon anticipates or renders obvious the '802 Patent because it incorrectly reads the teachings of Moon on the unclaimed embodiment of Fig. 8, rather than the claimed embodiment of Fig. 10 (among other errors). The Petition first alleges Moon's xCSI-RS is the control signal. Pet., 33 ("Moon teaches a control signal, for example, 'Control Signaling for Fifth Generation Channel State Information Reference Signals (xCSI-RS)'."). This theory can be dismissed out of hand because the Petition also alleges that transmission of Moon's xCSI-RS corresponds to transmission of the reference signal in element 1(b). *See* Pet., 48-49. Because the claims require transmission of the control signal to "trigger" transmission of the reference signal, mapping xCSI-RS to both the control signal and the reference signal makes no sense as that would require the xCSI-RS transmission to "trigger" itself—an impossibility given the claimed order of steps.

Alternatively, the Petition alleges that Moon's RRC and DCI sent via "xPDCCH" are the control messages. Pet., 33 ("The control signals associated with the xCSI-RSs in Moon include radio resource control (RRC) messages and downlink control information (DCI) sent via Moon's 'xPDCCH.'"). The flaw in this theory is that Moon discloses (and the Petition confirms) that both RRC and

DCI (the alleged control signals) and xCSI-RS (the alleged reference signal) are transmitted in a single subframe n (*i.e.*, in the same transmission):

[O]ne or more bits can be included in a ***DCI of subframe n to indicate the presence of xCSI-RS in subframe n*** and also to trigger UCI (uplink control information) in a subsequent subframe $n+k$. In an example scenario involving a single bit, if it is set to 1, ***the xCSI-RS can be indicated in subframe n*** and UCI triggered in subframe $n+k$ with no additional triggering for the UCI in any subsequent subframes.

EX1005, [0044].

Processor 410 can schedule a xPDSCH in a subframe (e.g., ***subframe n***), and can schedule ***the final M symbols (e.g., 0, 1, 2, etc.) of the xPDSCH of subframe n for xCSI-RS***. Depending the type of subframe of subframe n , the final M symbols of the xPDSCH scheduled in subframe n may be the final M symbols of subframe n (e.g., symbols numbered 14- M through 13, such as if subframe n is a DL-only subframe, etc.), or may be shifted one or more symbols earlier (e.g., symbols numbered 12- M through 11, such as if subframe n is the upper example subframe of FIG. 2, wherein the xPDSCH ends at symbol 11).

Processor 410 can also generate one or more control messages that indicate ***an xCSI-RS configuration for subframe n*** , where the xCSI-RS configuration can indicate the number of xCSI-RS symbols (M), and the location of the xCSI-RS symbols (e.g., symbols (10, 11), symbols (12, 13), symbol (11), etc.), and can optionally indicate additional

information. In some aspects, information (e.g., the value of M, the location of the M symbols, etc.) can be explicitly indicated in the one or more control messages, while in other aspects, it can be implicitly indicated (e.g., via an indication to employ a previously indicated xCSI-RS configuration, etc.). Processor 410 can output the one or more control messages to transmitter circuitry 420 for transmission to one or more UEs.

In some aspects, the one or more control messages can comprise ***DCI message(s) transmitted via xPDCCH of subframe n***. In the same or other aspects, the one or more control messages can comprise RRC message(s).

EX1005, [0048]-[0050]. In every example, Moon consistently teaches that RRC/DCI and xCSI-RS are in the same subframe n.

This is also Petitioners' theory. The Petition alleges that, in a single subframe n as shown in Fig. 3, the first three symbols correspond to RRC / DCI and the last two symbols correspond to xCSI-RS:

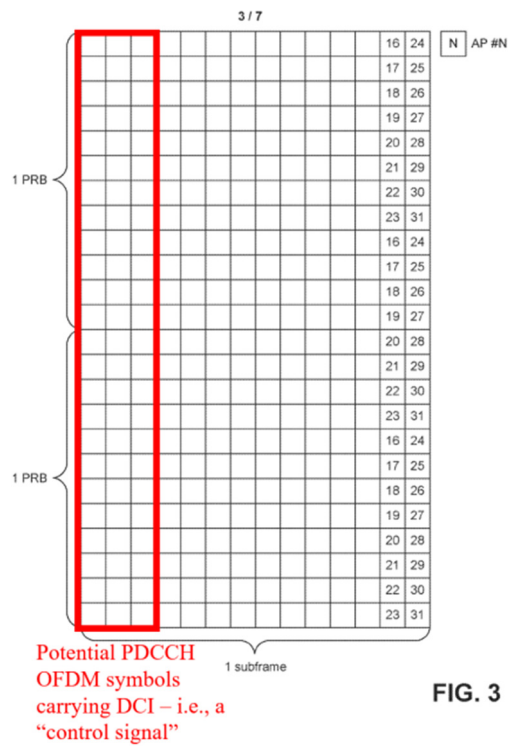
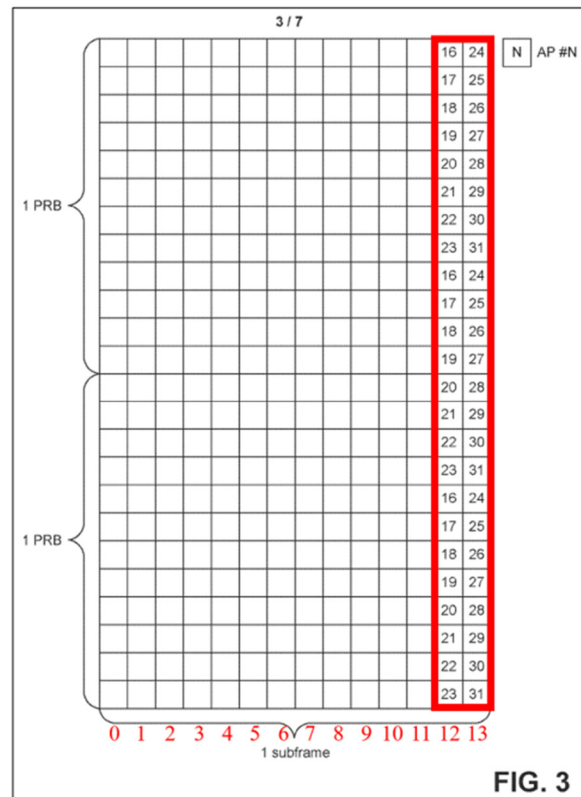


FIG. 3

Pet., 35.



Pet., 46. Moon Fig. 3 states at the bottom that the 13 symbols are “1 subframe.”

Moon’s disclosure that the alleged control signal and alleged reference signal are in the same subframe n is critical because, if RRC / DCI and xCSI-RS are in the same subframe n, then they are in the same transmission. *See* EX1003, ¶¶32-34 (Petitioners’ expert testifying that a subframe is a unit of a transmission), p.611 (“A terminal is scheduled for an initial transmission in subframe n; a transmission that is not correctly received and consequently a retransmission is required in subframe n + 8...”). And because RRC / DCI and xCSI-RS are in the same subframe / transmission, the alleged control signal (RRC / DCI) and the alleged

reference signal (xCSI-RS) are transmitted as a single subframe / transmission in a single step as in the '402 Patent's Fig. 8, rather than two separate steps are in Fig. 10 and claimed. Thus, Petitioners' theory maps to the unclaimed embodiment of Fig. 8 rather than the claimed embodiment of Fig. 10.

Moreover, because Moon's RRC/DCI and xCSI-RS are part of the same subframe / transmission, Moon cannot suggest that a RRC / DCI transmission "triggers" a xCSI-RS transmission as claimed. For element 1(a)(1), the Petition refers to the following description of an aperiodic beam reference signal in column 6 of the '402 Patent:

an aperiodic beam reference signal is transmitted when there is an associated triggering signal. When the UE detects the associated triggering signal (e.g., a control signal, a control channel, an uplink grant, or a downlink assignment), the UE would realize there would be beam reference signal in an associated timing occasion, e.g., the rest of the symbol(s) in the same slot or the symbol(s) in the following slot.

Pet., 40 (*citing* EX1001, 6:67–7:3). The Petition then argues that this is analogous to paragraph 40 of Moon. *Id.*, 40-41.

Petitioner is incorrect. Column 6 of the '402 Patent is a general statement applicable to both the Fig. 8 embodiment and the Fig. 10 embodiment, as indicated

by the repeated use of the word “e.g.”—for example. The most natural reading of this statement is that it provides as examples (“e.g.”) either a trigger in a control channel as in Fig. 8 (EX1001, 6:66-67) or a control signal as in Fig. 10. For the same reason, an “associated timing occasion” is not limited to “the rest of the symbol(s) in the same slot or the symbol(s) in the following slot.” Rather, the logical reading of this sentence is that “the rest of the symbol(s) in the same slot or the symbol(s) in the following slot” refers to the Fig. 8 embodiment where the trigger and the beam reference signal are transmitted in a single step such that the rest of the symbols are in the same slot or the following slot. But Fig. 10 is a different embodiment where the control signal is a different transmission than the reference signal, and the associated timing occasion would not be in the same slot—as noted by the use of “e.g.”.

Thus, when the Petition argues that Moon teaches “the reference signal is transmitted in the subframe in which it was triggered by the control signal” (Pet., 41), Petitioner is again mapping Moon to the unclaimed embodiment of Fig. 8 rather than the claimed embodiment of Fig. 10. The embodiment of Fig. 8 may allow the reference signal to be transmitted in the same subframe as the control trigger because the reference signal and the control trigger are both transmitted in step 905, but the embodiment of Fig. 10 does not allow the control signal and the

reference signal to be in the same subframe because Fig. 10 requires separate transmission of the control signal in step 1005 and the reference signal in step 1010. Unlike Fig. 8, Fig. 10 requires step 1005 to trigger step 1010. Petitioner fails to show how Moon teaches a control signal transmission that triggers a reference signal transmission as shown in Fig. 10 and claimed.

Because the Petition does not show that Moon anticipates or renders obvious the claimed embodiment of Fig. 10, 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.

The Director has issued additional 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)¹ (“*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 *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.

¹ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf

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 July 29, 2024. Paper 7, 1. A Final Written Decision will therefore be due by January 29, 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 half a year 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 at least five months 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., 74. 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., 74), but in *Crowdstrike*, the trials started “a few weeks earlier than the projected statutory deadline.” *Id.* Here, the projected statutory deadline will be five 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 29, 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.²

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.”).

Petitioners argue that their “diligence in filing and the district court’s minimal investment tips this factor in favor of institution.” Pet., 76. 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

² 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.

institution decision, claim construction will be nearly complete and significant discovery will have taken place.

Further, the Petition was filed on June 28, 2024. Paper 1, 78. Infringement contentions were filed January 4, 2024. EX1016, 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 1-4 and 12-15 challenged in this IPR are also asserted in the District Court litigation. EX2007, 2. Petitioner relies upon WO 2017/142573 (“Moon”) as the primary alleged prior art reference in this IPR, and also identifies it as prior art in the District Court litigation. EX2007, 10.

The Petition stipulates that “if trial is instituted, Petitioners will not pursue this IPR’s Grounds in the district court litigation.” Pet., 76. 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, Moon fails to anticipate or render obvious the two-step process of claims 1 and 12. 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., 77) stems from their misreading of both the ’402 Patent and Moon and are the type of unsupported attorney argument rejected by *Commscope*. Petitioner’s allegations essentially “point[] to its analysis under the lower §314 standard.” *Commscope*, IPR2022-01242, Paper 23. *See* Pet., 77. 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: October 29, 2024

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner Preliminary Response consists of 5,205 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: October 29, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on October 29, 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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