

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

COBBLESTONE WIRELESS LLC,
Patent Owner.

IPR2024-00136
Patent 8,891,347 B2

Before NATHAN A. ENGELS, NORMAN H. BEAMER, and
RUSSELL E. CASS, *Administrative Patent Judges*.

CASS, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

T-Mobile USA, Inc., AT&T Services, Inc., AT&T Mobility LLC, AT&T Corporation, Cellco Partnership d/b/a Verizon Wireless, Nokia of America Corporation, and Ericsson Inc. (collectively, “Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–4, 6–12, 14–17, and 19–23 of U.S. Patent No. 8,891,347 B2 (Ex. 1001, “the ’347 patent”). Paper 1, 1 (“Pet.”). Cobblestone Wireless LLC (“Patent Owner”) filed a Preliminary Response. Paper 12 (“Prelim. Resp.”).

An *inter partes* review may not be instituted unless it is determined that “the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314 (2018); *see also* 37 C.F.R. § 42.4(a) (2021) (“The Board institutes the trial on behalf of the Director.”). The reasonable likelihood standard is “a higher standard than mere notice pleading,” but “lower than the ‘preponderance’ standard to prevail in a final written decision.” *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13 (PTAB Dec. 20, 2019) (precedential).

For the reasons provided below and based on the record before us, we determine that it is appropriate for us to exercise our discretion under 35 U.S.C. § 314(a) to deny institution in this proceeding. Accordingly, we do not institute an *inter partes* review based on the Petition.

B. Real Parties in Interest

Petitioner identifies T-Mobile USA, Inc., AT&T Services, Inc., AT&T Corporation, AT&T Mobility LLC, Cellco Partnership d/b/a Verizon Wireless, Nokia of America Corporation, and Ericsson Inc. Pet. 2. Petitioner also identifies Samsung Electronics Co., Ltd., because it is named as a defendant and its products are accused of infringement in a related district court litigation. *Id.* at 2–3. Patent Owner names itself as the real party in interest. Paper 7, 2.

C. Related Proceedings

Both parties identify, as matters involving or related to the '347 patent, the following district court proceedings: *Cobblestone Wireless, LLC v. T-Mobile USA, Inc.*, No. 2:22-cv-00477 (E.D. Tex.) (identified as the “LEAD CASE” (Ex. 1012) and referred to herein as the “parallel district court case”); *Cobblestone Wireless, LLC v. Cellco Partnership d/b/a Verizon Wireless*, No. 2:22-cv-00478 (E.D. Tex.); *Cobblestone Wireless, LLC v. AT&T Inc.*, No. 2:22-cv-00474 (E.D. Tex.); and *Cobblestone Wireless, LLC v. Samsung Electronics Co.*, No. 2:23-cv-00285 (E.D. Tex.). Pet. 3; Paper 7, 2. Also, Samsung Electronics America, Inc. filed a petition on December 18, 2023, challenging the '347 patent in IPR2024-00319.

D. The '347 Patent (Ex. 1001)

The '347 patent relates to a method for wireless communication in a system including a transmitter, a receiver, and multiple propagation paths formed between the transmitter and the receiver that are capable of carrying a signal transmitted by the transmitter to the receiver. Ex. 1001, code (57). The method performs a channel estimation of a first signal from the transmitter on one propagation path to obtain parameter information on the

propagation path, predistorting a second signal at the transmitter according to the channel estimation, and transmitting the predistorted signal from the transmitter to the receiver via the propagation path. *Id.*

A schematic representation of a wireless communication system capable of performing the claimed method is shown in Figure 1, reproduced below.

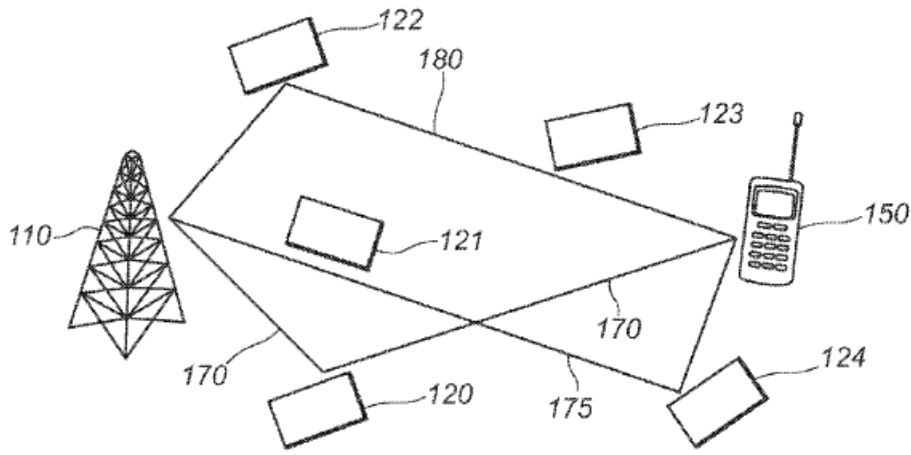


FIG. 1

Figure 1 is a schematic representation of a wireless communication system capable of performing the claimed method. Ex. 1001, Fig. 1, 2:45–47. As the '347 patent explains, Figure 1 “illustrates a single-link communication scenario between a base station which is configured so as to act as a transmitter 110 and a mobile station which is configured so as to act as a receiver 150.” Ex. 1001, 3:23–26. Between transmitter 110 and receiver 150 “are a number of buildings 120–124, which act as scatterers and bouncing points of communication signals traveling between the transmitter 110 and the receiver 150 via propagation paths 170, 175, and 180.” *Id.* at 3:26–30. These propagation paths “are different in delay, direction of arrival, direction of departure and Doppler frequency,” and the signals traveling along these paths “experience different distortions” so that the

same signal traveling along these paths “may arrive at the receiver with different phases.” *Id.* at 3:47–50, 7:44–46. As a result, “[t]he resulting multiple replica of the originally transmitted signals are added at the receiver 150, either destructively or constructively.” *Id.* at 7:47–49.

The ’347 patent explains that “[t]ypically, equalization techniques known in the art are used in the receivers 150 to recover the original transmitted signal by removing the distortions.” Ex. 1001, 7:50–52. “[U]nlike the equalization technique which corrects the distortion at the receiver 150 after receiving the technique,” the system of the ’347 patent “adds a pseudo ‘distortion’ before the signals are transmitted at the transmitter 110.” *Id.* at 7:63–67. “These ‘pre-distorted’ signals,” the ’347 patent explains, “are then transmitted in such a way that the signal distortion can be successfully removed while propagating.” *Id.* at 7:67–8:3.

The ’347 Patent’s pre-distortion process is shown in more detail in Figure 4, reproduced below.

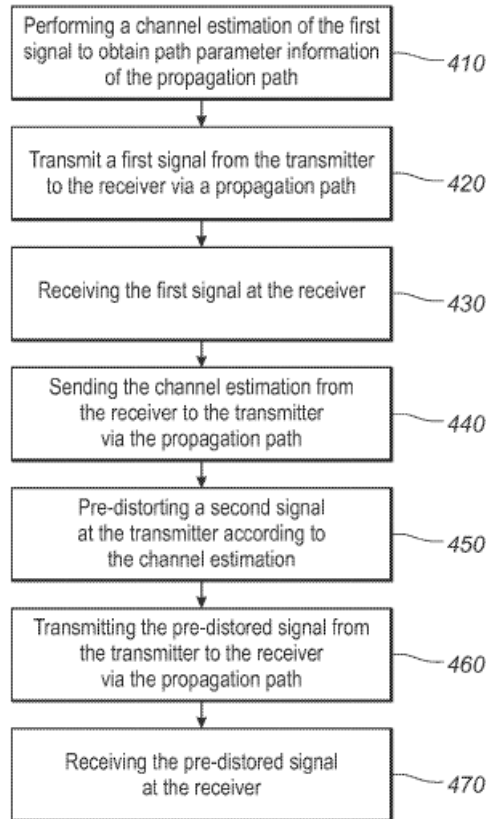


FIG. 4

As shown in Figure 4, the system first performs a channel estimation of the first signal to obtain path parameter information of the propagation path (step 410). *Ex. 1001, Fig. 4, 8:3–7.* Next, the transmitter transmits a first signal to the receiver via a propagation path (step 420). *Id. at Fig. 4, 8:7–9.* The receiver receives the first signal and performs a channel estimation algorithm to obtain estimates of the delay, Doppler frequency, direction of arrival, direction of departure, and complex amplitude for each of the propagation paths (step 430). *Id. at Fig. 4, 8:11–16.* The receiver then sends the channel estimation to the transmitter via the propagation path. *Id. at Fig. 4, 9:1–3.* Then, for the next frame or block to transmit, the transmitter “pre-distorts” a second signal and generates multiple signal replica with

appropriate settings of the transmitting time, transmitting pace and directions, receiving directions, and complex weight of the signal (step 450). *Id.* at Fig. 4, 9:6–10. The transmitter sums up and transmits these “pre-distorted” signal replica (step 460), which are received by the receiver (step 470). *Id.* at Fig. 4, 9:12–14.

E. Claim 1

Of challenged claims 1–4, 6–12, 14–17, and 19–23, claims 1, 8, 15, and 19 are independent. Challenged claim 1 is illustrative, and is reproduced below.

[1.0] A method for wireless communication in a system including a transmitter, a receiver, and a plurality of propagation paths formed between the transmitter and the receiver which are capable of carrying a signal transmitted by the transmitter to the receiver, the method comprising:

- [1.1] transmitting a first signal from the transmitter to the receiver via a first propagation path of the plurality of propagation paths;
- [1.2] receiving the first signal at the receiver;
- [1.3] performing channel estimation based on the first signal to obtain path parameter information of the first propagation path;
- [1.4] sending the channel estimation that includes the path parameter information from the receiver to the transmitter via the first propagation path;
- [1.5] predistorting a second signal at the transmitter in a time domain, a frequency domain, and a spatial domain, according to the channel estimation based on the first signal;
- [1.6] transmitting the predistorted second signal from the transmitter to the receiver via the first propagation path;
and
- [1.7] receiving the predistorted second signal at the receiver.

Ex. 1001, 16:40–61 (indents and bracketed paragraph identifiers added).

F. Applied Reference

Petitioner relies upon the following reference:

Stefania Sesia, “LTE: The UMTS Long Term Evolution from Theory to Practice,” Second Edition, published by Wiley (Ex. 1003, “Sesia”).

Pet. v, 6. Petitioner submits declarations from James A. Proctor (Ex. 1005) and Sylvia Hall-Ellis (Ex. 1004).

1. Overview of Sesia (Ex. 1003)

Sesia is a book entitled “LTE – The UMTS Long Term Evolution From Theory to Practice,” authored by Stefani Sesia, Issam Toufik, and Matthew Baker, and published by Wiley with a copyright date of 2011.

Ex. 1003, 1, 5.¹ Sesia explains that it “provides a thorough, authoritative and complete tutorial of the LTE system, now fully updated and extended to include LTE-Advanced,” and “gives a detailed explanation of the advances made in our theoretical understanding and the practical techniques that will ensure the success of this ground-breaking new radio access technology.” *Id.* at 29. One aim of Sesia is “to chart an explanatory course through the LTE specifications, to support those who design LTE equipment.” *Id.* at 32.

Sesia discloses the use of a base station (also referred to as an eNodeB) in communication with one or more mobile devices or user equipment (UE). Ex. 1003, 480. Sesia illustrates in Figure 20.1, reproduced below, a base station with an omnidirectional antenna that transmits a signal along three different propagation paths, shown as Path 1, Path 2, and Path 3.

¹ The cited pages of Sesia refer to the page numbers added by Petitioner, not the original pages in the book.

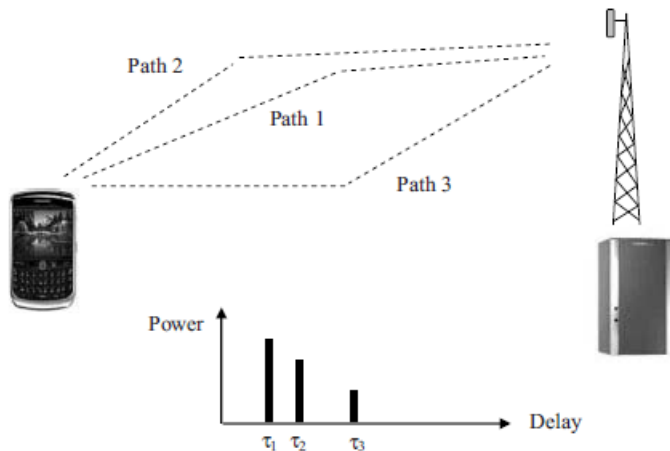


Figure 20.1: Multipath propagation and PDP.

Sesia’s Figure 20.1 shows a base station (right) with an antenna that transmits a signal along three propagation paths, Path 1, Path 2, and Path 3. Ex. 1003, 480–481.

Sesia explains that, as shown in Figure 20.1, “[t]he transmitted signal traverses three paths with different delays.” *Id.* at 480.

Sesia also explains that LTE “is a coherent communication system,” meaning that its detection method “exploits channel knowledge.” Ex. 1003, 207–208. “Coherent detection,” Sesia states, “can make use of both amplitude and phase information carried by the complex signals, and not of only amplitude information as with non-coherent detection.” *Id.* at 207. “Optimal reception by coherent detection,” according to Sesia, “typically requires accurate estimation of the propagation channel.” *Id.* “A common and simple way to estimate the channel is to exploit known signals which do not carry any data” and, “[i]n order to estimate the channel as accurately as possible, all correlations between channel coefficients in time, frequency and space should be taken into account.” *Id.* at 208. LTE can use reference signals embedded into a transmitted signal to perform these estimations. *Id.* at 208–209.

Sesia also includes sections describing “frequency-domain channel estimation,” “time-domain channel estimation,” and “spatial-domain channel estimation.” Ex. 1003, 220–227. Sesia discloses that a user equipment (UE) can report these channel estimations to an eNodeB using implicit feedback, which “provides an implicit representation of the channel consisting of an indication of the data rate that could be achieved if the eNodeB used a certain precoder.” *Id.* at 316, 704. This can be compared to “explicit feedback,” which is “not supported in LTE or LTE-Advanced,” in which “a UE would instead explicitly report a quantized representation of the physical CSI [(Channel State Information)] without making assumptions about the nature of the eNodeB precoder.” *Id.* at 705. Sesia further discloses that LTE supports beamforming techniques. *Id.* at 295–298.

G. Asserted Ground of Unpatentability

Petitioner challenges the patentability of claims 1–4, 6–12, 14–17, and 19–23 of the ’347 patent on the following ground:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–4, 6–12, 14–17, 19–23	103(a) ²	Sesia

Pet. 6.

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. § 103 that became effective after the filing of the application for the ’136 patent. For purposes of this Decision, we apply the pre-AIA version of 35 U.S.C. § 103.

II. DISCUSSION

Patent Owner asserts that institution should be denied under 35 U.S.C. § 314(a), in deference to the parallel district court case. Prelim. Resp. 25. We address the parties' arguments regarding discretionary denial below.

Under 35 U.S.C. § 314(a), the Director has discretion to deny institution of review. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review.” (emphasis omitted)); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

One instance when the Board considers exercising this discretion is when there is an early trial date in related litigation, which the Board considers as part of assessing all relevant circumstances, including the merits, to balance considerations such as system efficiency, fairness, and patent quality. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv Order*”); *NHK Spring Co. v. Intri-Plex Technologies, Inc.*, IPR2018-00752, Paper 8 at 19–20 (PTAB Sept. 12, 2018) (precedential). The Board evaluates the following six factors when making this assessment:

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 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.

Fintiv Order at 5–6. In evaluating these factors, we take a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review. *Fintiv* Order at 6.

On June 21, 2022, the Director issued an Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings With Parallel District Court Litigation (the “Interim *Fintiv* Guidance”).³ The Interim *Fintiv* Guidance provides “several clarifications” to “the PTAB’s current application of *Fintiv* to discretionary denial where there is parallel litigation” based on comments received from stakeholders in response to a Request for Comments (RFC). Interim *Fintiv* Guidance at 2.

In the analysis that follows, we first consider whether *Fintiv* factors 1–5 weigh in favor of exercising our discretion to deny institution. For the reasons discussed below, we conclude that *Fintiv* factors 1–5 weigh in favor of denying institution.

Because *Fintiv* factors 1–5 favor denial of institution, we must also determine whether the Petition presents compelling merits. *See CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 5 (PTAB Feb. 27, 2023) (precedential) (“In circumstances where . . . the Board’s analysis of *Fintiv* factors 1–5 favors denial of institution, the Board shall

³ The Interim *Fintiv* Guidance is available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

then assess compelling merits.”). “Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” Interim *Fintiv* Guidance at 4. “A challenge can only ‘plainly lead to a conclusion that one or more claims are unpatentable’ (*id.*) if it is highly likely that the petitioner would prevail with respect to at least one challenged claim.” *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102 at 49–50 (PTAB Oct. 4, 2022) (precedential) (“*OpenSky*”). “[A] determination of ‘compelling’ merits should not be taken as a signal to the ultimate conclusion after trial.” *Id.* As discussed below, we find that Petitioner has not made a sufficient showing of compelling merits based on the record presented. Thus, we find that it is appropriate to exercise our discretion to deny institution based on the status of the parallel district court case.

1. Factor 1: whether a stay exists or is likely to be granted if a proceeding is instituted

Under the first *Fintiv* factor, we consider “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” *Fintiv* Order at 6. Patent Owner contends that this factor weighs in favor of denial because “no stay of the parallel district court litigation has been granted, and a stay is unlikely given the advanced stage of the case.” Prelim. Resp. 26. Petitioner argues that neither party has requested a stay in the district court proceeding, and this factor should be considered neutral. Pet. 67.

We will not attempt to predict how the district court in the parallel district court case would proceed if a stay is requested because the court may determine whether or not to stay any individual case, including the related

one, based on a variety of circumstances and facts beyond our control and to which the Board is not privy. *Sand Revolution II, LLC v. Cont'l Intermodal Grp. - Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative) (“*Sand Revolution*”). Accordingly, we find that factor 1 is neutral.

2. *Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline*

Under the second *Fintiv* factor, we consider the “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision.” *Fintiv* Order at 6. Petitioner states that the parallel district court case “is not set to begin until at least September 23, 2024.” Pet. 61 (citing Ex. 1011, 1). Petitioner argues that it moved to consolidate the parallel district court case (which it refers to as the “Carrier 1.0 cases”) with a later district court case (which it refers to as the “Carrier 2.0 cases”), and that trial in the later district court case is set to occur in May 2025. Prelim. Reply 2–3, 4–5. According to Petitioner, Patent Owner’s analysis fails to consider this potential consolidation. *Id.* at 1–2. Petitioner also contends that it was “granted a limited intervention in the Samsung Case to oppose Patent Owner’s attempted modification of the Protective Order in that case” and, “[i]n that opposition, Petitioners pointed out the faults in Patent Owner’s attempts to prevent consolidation.” *Id.* at 5.

Patent Owner states that “the district court trial is set to occur ***over eight months*** before the deadline for a final written decision,” which Patent Owner argues “***weighs heavily in favor of discretionary denial.***” Prelim. Resp. 30 (emphasis in original). Patent Owner also argues that the “timeframe set by the district court is consistent with the Federal Court Management Statistics for the Eastern District of Texas.” *Id.* at 29.

Specifically, Patent Owner asserts that these statistics “indicate that, over the past six years, a civil case in the district was brought to trial 19.6 months after filing,” and that the trial statistics “indicate median times to trial for civil cases for the twelve-month period ending in December for 2018–2023 as 19.0, 17.8, 17.5, 23.0, 19.0, and 21.4.” *Id.* at 29–30 (citing Ex. 2003 (Trial Statistics)). In the parallel district court case, according to Patent Owner, “trial is set approximately 21 months after the cases were filed.” *Id.* at 30 (citing Ex. 1011 (Docket Control Order), 1; Exs. 2004–2006 (parallel cases filed December 15–16, 2022)).

Patent Owner further argues that Petitioner’s consolidation motion “is unlikely to be granted” because “there are no overlapping patents, patent families, inventors, or claim construction issues,” and consolidation would result in an eight-month trial delay. Prelim. Sur-reply 1–2, 4. According to Patent Owner, “the presiding judge in the district court cases, Judge Gilstrap *sua sponte* divided and consolidated the cases pending between Petitioners and Patent Owner into two groups: the first group involving the ’347 and other families (Carrier 1.0), and the second group involving an entirely different family (Carrier 2.0),” which “further suggests Judge Gilstrap is unlikely to consolidate Carrier 1.0 and 2.0 cases now.” *Id.* at 5.

We will not attempt to predict how the district court in the parallel district court case will decide the pending consolidation motion. *Cf. Sand Revolution*, IPR2019-01393, Paper 24 at 7. Here, as Patent Owner points out, the deadline for our final written decision is approximately eight months after the current trial date in the parallel district court case. Additionally, the average time to trial for the Eastern District of Texas for the 12-month period ending December 31, 2023, is listed as 21.4 months, which is very

similar to the 21-month period from filing to the trial date set by the district court. *See* Ex. 2003. Thus, the estimated trial date based on the average time to trial statistics is very close to the trial date set by the judge in the parallel district court case. In light of these facts, we find that factor 2 weighs in favor of exercising discretion to deny institution.

3. *Factor 3: investment in the parallel proceeding by the court and parties*

Under the third *Fintiv* factor, we consider the “investment in the parallel proceeding by the court and the parties.” *Fintiv* Order at 6. Petitioner argues that factor 3 “weighs heavily against discretionary denial” because the parallel district court case “is still in the very early stages of litigation.” Pet. 67. More specifically, Petitioner asserts that “discovery is still in the preliminary stages,” in validity contentions were filed in May 2023, “Claim Construction is not scheduled until April 30, 2024,” and “a claim construction order will not issue prior to the PTAB’s projected institution date.” *Id.* Petitioner further contends that it “diligently prepared this Petition and filed well in advance of the statutory deadline, which weighs against denying institution.” *Id.*

Patent Owner argues “the parties and the district court will have invested significant time and resources in the district court litigation by the time the Board reaches an institution decision in this matter.” Prelim. Resp. 35. Patent Owner argues “an order resulting from the May 2, 2024 *Markman* hearing (Ex. 2001) will likely issue prior to the June 11, 2024 deadline for the institution decision” and fact discovery and the exchange of opening and rebuttal expert reports also will be completed prior to June 11, 2024. *Id.* at 33–34. Regarding diligence, Patent Owner argues Petitioner

“unduly delayed in filing their Petition, filing just over two weeks before the statutory deadline.” *Id.* at 36.

Because the *Markman* hearing will be completed prior to the time of the institution decision and discovery will have proceeded to an advanced stage (including the close of fact discovery and exchange of opening and rebuttal expert reports) by the time of this Decision, we find that factor 3 weighs in favor of exercising discretion to deny institution.

4. *Factor 4: overlap between issues raised in the petition and in the parallel proceeding*

Under the fourth *Fintiv* factor, we consider the “overlap between issues raised in the petition and in the parallel proceeding.” *Fintiv* Order at 6. The Petition states that “if instituted, Petitioner stipulates that it will not pursue invalidity against the asserted claims in the district court using the specific combination of prior art references set forth in the grounds presented in this Petition for purposes of establishing obviousness (e.g., *Sesia et al.* under § 103).” Pet. 68. Patent Owner argues that the fourth *Fintiv* factor favors institution despite Petitioner’s stipulation. Prelim. Resp. 37–40. In particular, Patent Owner asserts that Petitioner’s “limited” stipulation “does not alleviate inefficiency concerns.” Prelim. Resp. 38–39.

Petitioner’s stipulation that it will not rely on the grounds asserted in the Petition in the parallel district court proceeding mitigates to at least some degree concerns of duplicative efforts and potentially conflicting decisions. *See Sand Revolution*, Paper 24 at 12. Thus, we find that factor 4 weighs marginally against exercising discretion to deny institution.

5. *Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party*

Under the fifth *Fintiv* factor, we consider “whether the petitioner and the defendant in the parallel proceeding are the same party.” *Fintiv* Order at 6. Petitioner acknowledges “overlapping parties” and argues factor 5 is neutral. Pet. 68. Patent Owner argues “Petitioners are the defendants and intervenors in the parallel litigation” and, therefore, factor 5 weighs in favor of exercising discretion to deny institution. Prelim. Resp. 41.

In light of the fact that the trial date in the parallel district court case significantly precedes the Board’s anticipated deadline for a Final Written Decision, we find that factor 5 weighs in favor of exercising discretion to deny institution. *See Huawei Techs. Co., Ltd. v. WSOU Invs., LLC*, IPR2021-00225, Paper 11 at 13–14 (PTAB June 14, 2021) (factor 5 “favors denial if trial precedes the Board’s Final Written Decision and favors institution if the opposite is true”).

6. *Factor 6: other circumstances that impact the Board’s exercise of discretion, including the merits*

The merits of the petition’s challenges are part of the “balanced assessment of all the relevant circumstances” the Board undertakes in the *Fintiv* discretionary denial analysis. *Fintiv* Order, at 14–16. The Interim *Fintiv* Guidance also provides that “compelling, meritorious challenges will be allowed to proceed at the PTAB even where district court litigation is proceeding in parallel.” Interim *Fintiv* Guidance at 4. The Guidance defines “[c]ompelling, meritorious challenges” as “those in which the evidence, if un rebutted at trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Id.*; *see CommScope*, IPR2022-01242, Paper 23 at 3. In *CommScope*, the USPTO

Director further explained that “[a] challenge can only ‘plainly lead to a conclusion that one or more claims are unpatentable’ if it is highly likely that the petitioner would prevail with respect to at least one challenged claim.” *CommScope* at 3–4 (quoting *OpenSky*, IPR2021-01064, Paper 102 at 49).

According to *CommScope*, we should only reach the compelling merits analysis if we first determine that the first five *Fintiv* factors favor discretionary denial. *CommScope* at 4.

Thus, in circumstances where the Board determines that the other *Fintiv* factors 1–5 do not favor discretionary denial, the Board shall decline to discretionarily deny under *Fintiv* without reaching the compelling merits analysis. In circumstances where, however, the Board’s analysis of *Fintiv* factors 1–5 favors denial of institution, the Board shall then assess compelling merits.

Id. at 4–5. In this case, *Fintiv* factors 1–5 favor denial. Specifically, weighing factors 1–5 in this case, we find that the approximately 8-month delay between the estimated trial date and the deadline for a final written decision in this IPR (factor 2), the progress of and investment made by the parties and the Court in the parallel district court case (factor 3), and the fact that Petitioner is also a party in the District Court Litigation (factor 5) outweigh Petitioner’s stipulation mitigating the concerns about overlap between the two proceedings (factor 4). Additionally, we find that factor 1 is neutral. Thus, we address whether the merits of Petitioner’s case are compelling.

Based on the present record, we do not find that Petitioner has presented a “compelling, meritorious challenge” as to any of the challenged claims. Among other things, Petitioner bases its arguments on the construction of two claim terms: (1) “path parameter information” and (2) “predistorting a second signal at the transmitter in a time domain,

frequency domain, and a spatial domain,” which appear in claim 1 and in the same or similar form in independent claims 8, 15, and 19. Pet. 14–16. Petitioner submits constructions that it represents are “Patent Owner’s apparent interpretation of” these terms, although it acknowledges that “Patent Owner has not formally provided proposed claim constructions.” *Id.* at 13–14. These terms are discussed further below.

a) “*path parameter information*”

Petitioner argues that “[i]n the co-pending district court litigation, Patent Owner interprets ‘path parameter information’ broadly to capture any channel state information feedback, regardless of whether that channel state information is an explicit or implicit channel estimation.” Pet. 14. However, although Petitioner relies on this construction, Petitioner also criticizes the construction, asserting that “the [’347] patent *expressly excludes* implicit estimation from path parameter information” and that Patent Owner’s purported construction “is *not consistent* with the plain and ordinary meaning” of the claim language. *Id.* (emphasis added). In discussing claim construction, Petitioner does not offer alternative constructions, but instead exclusively relies on the construction it ascribes to Patent Owner and criticizes. *Id.* at 14–15.

In the section of the Petition applying the prior art to the claims, Petitioner makes clear that it is relying on Patent Owner’s purported construction of “path parameter information.” Pet. 34–36. Specifically, when comparing limitation [1.3] to Sesia, Petitioner asserts that:

Based on Sesia’s disclosure, a [person of ordinary skill in the art would understand, *under Patent Owner’s apparent interpretation of the claims*, that the information that is obtained from performing channel estimation on a reference signal and subsequently provided to the eNodeB by the UE as

either implicit or explicit feedback corresponds with the claimed “path parameter information.” Furthermore, *under Patent Owner’s apparent interpretation of the claims*, based on Sesia’s disclosure, a [person of ordinary skill in the art] would understand that this information is “path parameter information of the first propagation path” given that channel estimation attempts to define the channel model of a propagation path.

Pet. 35 (emphasis added) (citing Ex. 1005 ¶ 135). At the end of the discussion of this claim element, Petitioner states that Sesia discloses or teaches the claim language “under either Patent Owner’s apparent interpretation *or the plain and ordinary meaning of the term*,” but Petitioner never explains what the plain and ordinary meaning of the term is, or how that plain and ordinary meaning is disclosed by Sesia. *Id.* at 36 (emphasis added); *see id.* at 14–15 (discussing only Patent Owner’s purported construction in the claim construction section).

To support its reliance on Patent Owner’s purported construction of “path parameter information,” Petitioner cites several cases for the proposition that a petitioner may rely on a claim construction from Patent Owner that the petitioner believes is incorrect. Pet. 13. For example, Petitioner cites *10x Genomics, Inc. v. Bio-Rad Labs., Inc.*, IPR2020-00086, Paper 8 at 17–22 (PTAB Apr. 27, 2020) for the proposition that 37 C.F.R. § 42.104(b) “does not prohibit Petitioner from submitting a claim construction it believes is incorrect and relying on that construction to show how the claim is unpatentable” or relying on “a claim construction relied on by Patent Owner to assert infringement in the related district court action.” Pet. 13. Petitioner also relies on *Donnelly Distribution LLC v. Russo Trading Co., Inc.*, IPR2019-00761, Paper 8 at 17–18 (PTAB Sept. 6, 2019). *Id.*

Patent Owner responds that the Petition “rests on an infirm foundation” because Petitioner “raise[s] a single invalidity ground (over Sesia) that solely and exclusively relies upon Patent Owner’s alleged claim construction positions” and “make[s] clear *in the Petition, that they believe the sole constructions they rely on are dead wrong.*” Prelim. Resp. 5 (emphasis in original). Patent Owner argues that “the Board’s caselaw, and the Office’s policy make clear” that “a petitioner cannot demonstrate a reasonable likelihood of prevailing based on constructions it expressly disagrees with in its petition.” *Id.* Patent Owner further argues that, “at least as to limitation 1.3, Petitioner[] rel[ies] on a claim interpretation that *no one* agrees with” and that “Patent Owner’s actual claim constructions are different from the strawman construction that Petitioner[] ha[s] relied upon.” *Id.* Patent Owner distinguishes the Petition from situations where a petitioner “explain[s] why a claim is invalid under alternative claim constructions, *e.g.*, its proposed construction and a construction proffered by the patent owner.” *Id.*

Patent Owner also cites Board decisions for the proposition that “a petitioner cannot satisfy its burden of proof under constructions it insists are wrong.” Prelim. Resp. 10. For example, Patent Owner cites *Hologic, Inc. v. Enzo Life Sciences, Inc.*, IPR2018-00019, Paper 21 (PTAB Nov. 28, 2018) for the proposition that a petitioner “does not satisfy Rule 42.104(b)(3) when, in a proceeding applying the *Philips* claim-construction standard, it ‘expressly disagree[s] with its proffered constructions.’” *Id.* at 10–11 (citing *Hologic* at 2, 5–7). Patent Owner also cites additional cases in support of this proposition. *Id.* at 13 (citing *Orthopediatrics Corp. v. K2M, Inc.*, IPR2018-01548, Paper 9 at 9 (PTAB Mar. 1, 2019) (denying institution

where “Petitioner’s contentions are limited to how the claims at issue should not be construed”), 13–14 (citing *Samsung Elecs. of Am., Inc. v. Uniloc 2017 LLC*, IPR2020-00046, Paper 6 at 10 (PTAB Apr. 1, 2020) (“We exercise our discretion and decline Petitioner’s invitation to adopt allegedly incorrect claim constructions and institute an *inter partes* review on the basis of those constructions.”))).

Based on the present record, Petitioner has not presented a compelling, meritorious case that the challenged claims are unpatentable. Petitioner bases its case upon a claim construction that it ascribes to Patent Owner, and then expressly criticizes as being inconsistent with the plain and ordinary meaning of the claim language and the ’347 patent Specification. Pet. 14–15. Additionally, Petitioner does not provide reasoning or evidence showing why the applied construction is correct, and Patent Owner does not agree with the construction in the Preliminary Response. *Id.* Under these facts, Petitioner has failed to set forth a sufficient basis for us to find a compelling case of unpatentability.

Our conclusion in this regard is consistent with the Board’s prior decisions in *Hologic*, *Orthopediatrics*, and *Samsung*, upon which Patent Owner relies. *See* Prelim. Resp. 10–14. Moreover, we find that the contrary cases upon which Petitioner relies are inapposite here because they involved alternative constructions advanced by the petitioner. For example, in *10X Genomics*, the Board explained that:

[E]ven if our rules and guidance were correctly interpreted as prohibiting a petitioner from relying solely on a claim construction it believes is incorrect, that is not what Petitioner has done here. ***Petitioner proposes alternative claim constructions*** and presents at least one ground of unpatentability for each construction.

10X Genomics, Paper 8 at 22 (emphasis added). Similarly, in *Donnelly*, also cited by Petitioner, the petition offered alternative constructions—the construction proposed by the patent owner in district court and the “proper construction” that the petitioner believed was the correct one. *Donnelly*, Paper 2 (Petition) at 29–33 (identifying alternative constructions of “grip portion”).

For the foregoing reasons, we determine that Petitioner has not made a compelling, meritorious showing that “path parameter information,” as required by the challenged claims, is disclosed by or would have been obvious over *Sesia*. As a result, factor 6 does not weigh in favor of institution.

b) “*predistorting a second signal at the transmitter in a time domain, frequency domain, and a spatial domain*”

Petitioner’s argument concerning this limitation raises similar issues as its argument concerning “path parameter information” above. Specifically, Petitioner argues that “predistorting” should be interpreted to include “beamforming” because “[i]n the co-pending district court litigation, Patent Owner alleges that beamforming ‘predistorts’ a signal in a time domain, frequency domain, and a spatial domain.” Pet. 15 (citing Ex. 1006, 9; Ex. 1009, 9; Ex. 1010, 9). Petitioner, however, criticizes this construction by asserting that “[b]eamforming and the selection of time and frequency resources jointly or individually are not predistortion,” and that Patent Owner’s purported construction “is not consistent with the plain and ordinary meaning” of the claim language. *Id.* at 14, 16. In discussing claim construction, Petitioner does not offer alternative constructions, but instead exclusively relies on the construction ascribed to Patent Owner. *Id.* at 15–16.

For similar reasons discussed above with respect to “path parameter information,” Petitioner has not presented a compelling, meritorious case that the claim construction of the “predistorting . . .” limitation applied in the Petition is correct based on the present record. Petitioner expressly criticizes the construction it offers as being inconsistent with the plain and ordinary meaning of the claim language, and with the ’347 patent Specification. Pet. 14, 16. Additionally, Petitioner does not explain why the applied construction is correct, and Patent Owner does not expressly agree with the construction or provide reasons why it is correct. Pet. 15–16; Prelim. Resp. 5–17.

Petitioner also makes clear that it is relying on Patent Owner’s purported construction of the “predistorting . . .” claim language when applying the claims to the prior art. Pet. 38–43. Specifically, when comparing limitation [1.5] to Sesia, Petitioner asserts that:

Sesia discloses and/or renders obvious “predistorting a second signal at the transmitter in a time domain, a frequency domain, and a spatial domain, according to the channel estimation based on the first signal” ***in light of Patent Owner’s apparent interpretation of this limitation based on its infringement contentions in the related District Court proceedings.*** As discussed above, ***Patent Owner interprets*** “predistorting a second signal at the transmitter in a time domain, a frequency domain, and a spatial domain” as broad enough to include beamforming a wireless signal and/or scheduling of transmission resources in the time and frequency domains.

As described above in Section VIII and incorporated by reference herein, ***Sesia discloses multiple methods of beamforming*** a wireless signal based on path parameter information obtained from reference signals.

Pet. 38–39 (citing Ex. 1005 ¶¶ 146–159); *see id.* at 42 (one of ordinary skill would “readily appreciated that an eNodeB can be configured to ‘predistort’

(or ‘beamform’ as Patent Owner interprets the limitation)’), 43 (“Thus, Sesia discloses and/or renders obvious” the “predistorting” limitation “as recited in Claim 1 under Patent Owner’s apparent interpretation of the claims which is broad enough to capture beamforming a wireless signal.”).

Consequently, we determine that Petitioner has not made a compelling, meritorious showing that “predistorting a second signal at the transmitter in a time domain, frequency domain, and a spatial domain,” as required by the challenged claims, is disclosed by or would have been obvious over Sesia. Thus, we find that factor 6 does not favor institution.

7. *Conclusion*

We take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Fintiv* Order, at 6. As discussed above, we find that factors 1–5 favor exercising our discretion to deny institution. As further discussed above, we find that the merits are not compelling and thus factor 6 does not weigh in favor of institution. For these reasons, we find that it is appropriate for us to exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review in this case.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is not instituted for challenged claim 1 of the ’347 patent.

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