

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Intel Corporation
Petitioner

v.

Qualcomm Incorporated
Patent Owner

Case IPR2019-00128
Patent 9,154,356

**PRELIMINARY PATENT OWNER RESPONSE TO PETITION FOR
INTER PARTES REVIEW PURSUANT TO 37 C.F.R. § 42.107**

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I. INTRODUCTION

Intel Corporation (“Intel” or “Petitioner”) seeks review of claims 1, 7, 8, 11, 17, and 18 of U.S. Patent No. 9,154,356 (the “’356 Patent”) based on anticipation and obviousness grounds that rely on the same or substantially the same references or arguments previously presented to the Patent Office during examination. U.S. Patent Application Publication No. 2012/0056681 (“Lee”) – the primary reference in this petition – was presented to and considered by the Patent Office during prosecution of the application giving rise to the ’356 Patent. But Lee was not merely disclosed – Lee was discussed in detail in an International Search Report and Written Opinion that rejected related claims in a PCT application as lacking novelty and inventiveness. This International Search Report and Written Opinion was also presented to and considered by the Patent Office, and the Examiner ultimately allowed the ’356 Patent. The only secondary reference Petitioner relies on is the same in all relevant aspects as other art presented to and considered by the Patent Office during examination. Accordingly, the Board should exercise its discretion under 35 U.S.C. §325(d) to deny institution.

The Board should alternatively exercise its discretion under 35 U.S.C. §314(a) to reject the Petition as redundant to other contemporaneously-filed petitions challenging the same claims. IPR2019-00047 and IPR-00048 challenge largely the same claims, with substantially the same arguments. IPR2019-00047 presents an

anticipatory ground that overlaps with the present Petition’s anticipatory ground based on Lee. Petitioner makes no attempt to explain how Lee is more relevant than or differs from the primary reference in IPR2019-00047. Moreover, Petitioner relies on the same secondary reference across all three petitions to allegedly plug the same hole in each primary reference. Thus, each ground presented in this Petition is cumulative to the arguments Petitioner advances in IPR2019-00047 and IPR2019-00048.

The Board should not reward Petitioner for its redundant and cumulative attacks but should instead exercise its discretion under 35 U.S.C. §§ 314(a) or 325(d) to deny institution.

II. THE ’356 PATENT AND ITS PROSECUTION HISTORY

A. Overview of the ’356 Patent

The ’356 Patent, titled “Low Noise Amplifiers for Carrier Aggregation,” generally relates to the design and operation of amplifiers in a wireless device receiving radio frequency (RF) signals employing carrier aggregation.

Receiving signals that employ carrier aggregation, a communication technique that Qualcomm pioneered, allows a mobile device to increase the bandwidth available to a user for receiving the user’s desired content. With carrier aggregation, data is split up and transmitted over multiple frequencies (carriers) to create more bandwidth for the device. Carrier aggregation therefore allows more

data to be transmitted more quickly than traditional single-frequency methods. However, a typical mobile device is not always receiving RF signals employing carrier aggregation. For example, sometimes a mobile device may receive RF signals on a single carrier, and at other times it receives no RF signals at all. One aspect of the invention of the '356 Patent is a receiver design that offers the flexibility of activating circuitry to receive a signal employing carrier aggregation when needed and deactivating that circuitry when it is not needed. By allowing flexibility of circuit components between carrier aggregation and non-carrier-aggregation modes, a mobile device can conserve power when less bandwidth is needed, and provide increased bandwidth to the user when desired.

Aspects of the '356 Patent may be found in the RF transceiver of mobile devices. The RF transceiver is a component that receives radio-frequency (RF) signals transmitted over the air (which can be at frequencies in the MHz to GHz ranges) and converts the RF signals to baseband signals that can be provided to digital circuitry for processing, for example, to recover user data. The RF transceiver is connected to the antenna that receives the RF signals through RF front-end circuitry, which prepares the received signals for conversion to baseband signals, such as by filtering the signals.

The '356 Patent's claims are directed to an RF receiver (for example, within an RF transceiver) with two amplifiers that separately amplify a common input RF

signal, where each of the two amplifiers can be independently enabled or disabled. By independently controlling the amplifier stages, the amplifier stages may be enabled or disabled as needed for carrier aggregation operation. For example, the two amplifiers may be enabled in carrier aggregation mode. Alternatively, one of the amplifiers may be enabled and the other disabled in non-carrier-aggregation mode.

By allowing the flexibility to disable an amplifier stage when it is not needed for carrier aggregation, the invention of the '356 Patent reduces power consumption in the RF transceiver and extends battery life for the mobile device. Furthermore, by sharing a common RF input signal between both amplifier stages, the invention of the '356 Patent reduces the number of connections needed in the RF transceiver, which in turn reduces the size of the transceiver and of the mobile device, and reduces the number of components required for multiple modes of operation.

Claims 1 and 17 illustrate embodiments of the '356 Patent's inventions:

1. An apparatus comprising:

a first amplifier stage configured to be independently enabled or disabled, the first amplifier stage further configured to receive and amplify an input radio frequency (RF) signal and provide a first output RF signal to a first load circuit when the first amplifier stage is enabled, the input RF signal employing carrier aggregation comprising transmissions sent on multiple carriers at different frequencies to a wireless device, the first output RF signal including at least a first carrier of the multiple carriers; and

a second amplifier stage configured to be independently enabled or disabled, the second amplifier stage further configured to receive and amplify the input RF signal and provide a second output RF signal to a second load circuit when the second amplifier stage is enabled, the second output RF signal including at least a second carrier of the multiple carriers different than the first carrier.

17. A method comprising:

amplifying a first input radio frequency (RF) signal with a first amplifier stage to obtain a first output RF signal when the first amplifier stage is enabled, the first amplifier stage configured to be independently enabled or disabled, the first input RF signal employing carrier aggregation comprising transmissions sent on multiple carriers at different frequencies to a wireless device, the first output RF signal including at least a first carrier of the multiple carriers; and

amplifying the first input RF signal or a second input RF signal with a second amplifier stage to obtain a second output RF signal when the second amplifier stage is enabled, the second amplifier stage configured to be independently enabled or disabled, the second output RF signal including at least a second carrier of the multiple carriers different than the first carrier.

Ex. 1301 at 20:43-61; 22:11-27.

B. Prosecution History of the '356 Patent

The '356 Patent issued from U.S. Patent Application No. 13/590,423 (the "'423 Application"), filed August 21, 2012, and claims priority to U.S. Provisional Application No. 61/652,064, filed May 25, 2012. Ex. 1301. The '423 Application

underwent a lengthy and comprehensive examination, spanning five rejections and advisory actions, two requests for continued examination, and hundreds of cited references, including multiple 3rd Generation Partnership Project (“3GPP”) standards/articles and an International Search Report (“ISR”) and Written Opinion.

The first office action issued November 14, 2013, and rejected independent claims 1 and 17, among other claims, as obvious over U.S. Patent No. 7,751,513 (“Eisenhut”). Ex. 1312 at 3-5. To overcome the rejection, Applicant amended claim 1 as follows:

1. An apparatus comprising:
a first amplifier stage configured to receive and amplify an input radio frequency (RF) signal and provide a first output RF signal to a first load circuit when the first amplifier stage is enabled, the input RF signal comprising transmissions sent on multiple carriers at different frequencies to a wireless device, the first output RF signal including at least a first carrier of the multiple carriers; and

a second amplifier stage configured to receive and amplify the input RF signal and provide a second output RF signal to a second load circuit when the second amplifier stage is enabled, the second output RF signal including at least a second carrier of the multiple carriers different than the first carrier.

Ex. 1313 at 2. Applicant made a similar amendment to claim 17. *Id.* at 5. Applicant additionally included arguments that Eisenhut does not teach or suggest at least the elements added by amendment. *Id.* at 7-9.

The Patent Office then issued a final office action on April 18, 2014, rejecting claims 1 and 17 (among others) as anticipated by U.S. Patent No. 7,317,894 (“Hirose”). Ex. 1314 at 3-5. In response, Applicant amended claims 1 and 17 to recite “the input RF signal employing carrier aggregation comprising transmissions sent on multiple carriers at different frequencies to a wireless device,” and “the first input RF signal employing carrier aggregation comprising transmissions sent on multiple carriers at different frequencies to a wireless device,” respectively. Ex. 1315 at 2, 5. Applicant further argued that Hirose did not utilize an input RF signal employing carrier aggregation. *Id.* at 7-9.

The Patent Office then issued an advisory action indicating that the claim amendments raised new issues that would require additional searching. Ex. 2001. Accordingly, on July 17, 2014, Applicant filed a request for continued examination (“RCE”) that included the aforementioned amendments and arguments. Ex. 2002.

The Patent Office next issued a non-final office action on August 1, 2014, rejecting claims 1 and 17 as anticipated by U.S. Patent No. 8,442,473 (“Kaukovuori”). Ex. 1316 at 3-5. In response, Applicant presented numerous arguments that Kaukovuori does not teach or suggest “[a first amplifier stage configured to ... amplify/ amplifying ... with a first amplifier stage] ... when the first amplifier stage is enabled ... and [a second amplifier stage configured to ... amplify/

amplifying ... with a second amplifier stage] ... when the second amplifier stage is enabled,” as recited in claims 1 and 17. Ex. 1317 at 7-9.

On December 26, 2014, the Patent Office issued a second final office action, again rejecting claims 1 and 17 as anticipated by Kaukovuori. Ex. 1318 at 7-9. After an Examiner Interview discussing possible claim amendments, Applicant amended independent claims 1 and 17 to recite that the first amplifier stage is configured to “be independently enabled or disabled . . .” and the second amplifier stage is configured to “be independently enabled or disabled” Exs. 1319; 1320 at 2, 5. In light of this amendment, the Examiner allowed claims 1 and 17. Ex. 1321 at 6, 9.

Prior to paying the issue fee, Applicant filed a second request for continued examination in order to permit the Patent Office to consider additional prior art disclosed in an Information Disclosure Statement. Ex. 2003. After reviewing the references, the Examiner again issued a Notice of Allowance, and the ’423 Application issued on October 6, 2015 as the ’356 Patent. Ex. 1322.

III. CLAIM CONSTRUCTION

37 C.F.R. 42.100(b) states that claims must be given their broadest reasonable interpretation in light of the specification (“BRI standard”). Patent Owner submits that no terms must be construed at this stage in the proceeding, and that the Board should deny institution under any claim construction it adopts. Patent Owner reserves the right to put forth constructions of particular claim terms and to rebut

constructions proffered in the petition as relevant to the patentability of the claims should trial be instituted.

IV. THE BOARD SHOULD EXERCISE ITS DISCRETION UNDER 35 U.S.C. § 325(d) TO DENY INSTITUTION

A. The Board Should Deny Grounds I And II Because Lee Was Considered By The Patent Office During Prosecution

Grounds I and II of the Petition ask the Board to reconsider the Lee reference, which was already considered by the Patent Office during prosecution. Petitioner asserts in Ground I that claims 1, 7, 8, 11, 17, and 18 are anticipated by Lee and in Ground II that claims 7 and 8 are obvious over Lee. The Board should exercise its discretion under 35 U.S.C. § 325(d) to deny Grounds I and II because the Patent Office previously allowed these claims over the very same art now being rehashed by Petitioner.

Not only did the Examiner consider the Lee reference during examination (as indicated by his initials on an IDS), he also considered an ISR and Written Opinion of the International Searching Authority that provided a detailed discussion of how Lee allegedly reads on the claims. The ISR and Written Opinion found that the relevant claims in the related PCT application lacked novelty and inventiveness over Lee. This ISR and Written Opinion was cited to the Patent Office and fully considered, as indicated by the Examiner's initials.

It is well established that the Board can exercise its discretion under Section 325(d) to deny institution of a petition based on art that was considered during prosecution. *Neil Ziegman, N.P.Z., Inc. v. Carlis G. Stephens*, IPR2015-01860, Paper 11 at 10 (PTAB Feb. 24, 2016) (denying institution under Section 325(d) based on a prior-art reference considered by the Office during prosecution); *Prism Pharma Co., Ltd. v. Choongwae Pharma Corp.*, IPR2014-00315, Paper 14 at 12-13 (PTAB July 8, 2014) (same).

During prosecution of the '356 Patent, Qualcomm submitted an IDS listing Lee. Ex. 2004. The Examiner subsequently considered Lee and provided his initials on a signed and dated "List of References cited by applicant and considered by Examiner." *Id.* That is enough to show that the Office previously considered Lee for purposes of Section 325(d). *See, e.g., R.J. Reynolds Vapor Co. v. Fontem Holdings I B.V.*, IPR2017-00626, Paper 7 at 12 (PTAB Sept. 27, 2018) (denying institution under Section 325(d) and finding that references listed on IDS were previously considered by the examiner); *Clim-A-Tech Ind., Inc. v. William A. Ebert*, IPR2017-01863, Paper 13 at 18-19 (PTAB Feb. 12, 2018) (relying on §325(d) as an additional basis to deny institution of anticipatory ground where the reference was cited in an IDS but not applied by the examiner as a basis for rejection). There is no question that the Examiner considered the Lee reference relied on by Petitioner and allowed the claims over it. In fact, Lee is listed on the face of the '356 Patent.

In addition to considering the Lee reference itself, the Examiner also considered the ISR and Written Opinion of the International Searching Authority, which provided a detailed description of how Lee allegedly reads on the claims. Ex. 2005. The Lee reference was one of only four references cited in the ISR and Written Opinion – far from being buried in a stack of references listed on an IDS. The Examiner considered these documents and initialed, signed, and dated the IDS listing them. Ex. 2004. In allowing the claims of the '356 Patent, the Examiner thus considered the ISR and Written Opinion and their discussion of Lee and allowed the claims over this reference. *Id.*

In evaluating whether to deny institution on the basis of Section 325(d), the Board considers the following list of factors set forth in *Becton Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017) (informative):

1. the similarities and material differences between the asserted art and the prior art involved during examination;
2. the cumulative nature of the asserted art and the prior art evaluated during examination;
3. the extent to which the asserted art was evaluated during examination;
4. the extent of the overlap between the arguments made during examination and the manner in which a petitioner relies on the prior art or a patent owner distinguishes the prior art;

5. whether a petitioner has pointed out sufficiently how the Office erred in evaluating the asserted prior art; and
6. the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments.

Here, the *Becton Dickinson* factors support denying institution.

As to factor 1, it is beyond dispute that the Lee reference, relied on by Petitioner, is the very same art considered by the Patent Office during prosecution. This factor thus weighs strongly in favor of non-institution. For factor 2, given that it is the same reference evaluated during prosecution, there is no question that Lee is cumulative, and this factor likewise weighs in favor of Patent Owner.

Factor 3 also supports non-institution. Not only did the Examiner review and initial an IDS indicating his consideration of the Lee reference, he also considered the ISR and Written Opinion that provided a detailed discussion of how Lee allegedly reads on the claims. The ISR and Written Opinion from a corresponding PCT application are especially relevant to the prosecution of a pending patent application. Further, the Lee reference was one of only four references that were considered in the ISR and Written Opinion, and the relevant PCT claims were identical to the originally filed claims in the '423 Application. *Compare* Ex. 2006 to Ex. 2007. Under these circumstances, it is unreasonable to think that the Examiner would not properly consider the ISR and Written Opinion and the Lee reference cited

and discussed therein, which provided the Examiner with an independent evaluation of Lee. Factor 3 thus weighs in favor of non-institution.

As to factor 4, the Office did not issue a rejection over Lee, so this factor is not applicable and thus favors neither party.

As to factors 5 and 6, the Petitioner, having the burden of proof, has made *no attempt* to demonstrate any error by the Patent Office or any other reason why reconsideration might be warranted. In fact, Petitioner includes no discussion of Section 325(d) or the *Becton Dickenson* factors. Petitioner thus asks the Board to second guess the Office's previous determination that the claims are patentable over Lee without providing any reason why the Board should re-evaluate that art. Factors 5 and 6 therefore also weigh in favor of non-institution.

For at least these reasons, the Board should exercise its discretion to deny institution of Grounds I and II under 35 U.S.C. § 325(d).

B. The Board Should Deny Ground III Because The Same or Substantially the Same Art Or Arguments Were Considered By The Examiner During Prosecution

As described above, the Patent Office considered primary reference Lee during examination. Ground III alleges that the combination of Lee and Feasibility Study for Further Advancements for E-UTRA (LTE-Advanced) (3GPP TR 36.912 version 9.1.0 Release 9) ("Feasibility Study") renders obvious claims 1, 7, 8, 11, 17, and 18 of the '356 Patent. Because these references are the same or substantially

the same art or arguments previously considered by the Office, the Board should exercise its discretion under 35 U.S.C. § 325(d) to deny institution of Ground III.

The Feasibility Study is a technical report describing aspirations for future wireless standards released by 3GPP. One of those aspirations is to make it “possible to configure a [user equipment] to aggregate a different number of component carriers originating from the same [base station] and of possibly different bandwidths in the [uplink] and the [downlink]” communication paths. This technical report contains no design concepts for circuitry to support its described operating modes.

The Feasibility Study is substantially the same art as 3GPP TS 36.101 v11.0.0 (“36.101 Specification”), a reference the Patent Office considered during examination. Petitioner relies on the Feasibility study as disclosing the claim 1 and claim 17 limitation “an input RF signal employing carrier aggregation.” In all relevant aspects, the 36.101 Specification considered by the Patent Office during examination is the same as the Feasibility Study. In fact, the 36.101 Specification and the Feasibility Study *both* describe the E-UTRA network, which supports carrier aggregation. For example, the Feasibility Study describes potential advancements to the E-UTRA network – a network fully described in the 36.101 Specification. Carrier aggregation is not an advancement proposed by the Feasibility Study because carrier aggregation was already fully supported by the E-UTRA network described

in the 36.101 Specification. In fact, the 36.101 Specification defines “carrier aggregation” as “[a]ggregation of two or more component carriers in order to support wider transmission bandwidths,” and references “carrier aggregation” or abbreviation “CA” more than 150 times.

Petitioner’s argument that the Feasibility Study is somehow more relevant than the 36.101 Specification because it allegedly teaches a receiver architecture mischaracterizes the reference and has no merit. First, the Feasibility Study does not teach the use of any particular receiver architecture – it vaguely describes several possible high-level receiver configurations that might be used with the potential advancements to E-UTRA. Second, Petitioner relies on the Feasibility Study for the claim limitation “an input RF signal employing carrier aggregation,” which does not itself recite a specific architecture. Petitioner’s reliance on the Feasibility Study thus adds nothing relevant to the claims of the ’356 Patent beyond what is described in the 36.101 Specification already considered by the Examiner.

For at least these reasons, the Board should exercise its discretion to deny institution of Ground III under 35 U.S.C. § 325(d)

V. THE PETITION SHOULD BE DENIED BECAUSE IT IS CUMULATIVE TO IPR2019-00047 AND IPR2019-00048

Petitioner challenges overlapping claims with redundant references and arguments across three petitions. The Board should exercise its discretion under 35

U.S.C. § 314(a) to deny Petitioner's serial attacks on the same claims of the '356 Patent.

Petitioner presently challenges claims 1, 7, 8, 11, 17, and 18 of the '356 Patent across three grounds: 1) claims 1, 7, 8, 11, 17, and 18 are anticipated by Lee; 2) claims 7 and 8 are obvious over Lee; and 3) claims 1, 7, 8, 11, 17, and 18 are obvious over Lee in view of the Feasibility Study. Separately, Petitioner filed two other and redundant petitions challenging the same or substantially the same sets of claims. IPR2019-00047 challenges claims 1, 7, 8, 10, 11, 17, and 18 across six different grounds: 1) claims 1, 11, 17, and 18 are anticipated by U.S. Patent Application Publication No. 2011/0217945 ("Uehara"); 2) claims 7 and 8 are obvious over Uehara in view of "Resistive-Feedback CMOS Low-Noise Amplifiers for Multiband Applications," by Bevin G. Perumana, Jing-Hong C. Zhan, Stewart S. Taylor, Brent R. Carlton, and Joy Laskar ("Perumana"); 3) claim 10 is obvious over Uehara in view of "Digitally-Controlled RF Passive Attenuator in 65 nm CMOS for Mobile TV Tuner ICs," by Ahmed Youssef and James Haslett ("Youssef"); 4) claims 1, 11, 17, and 18 are obvious over Uehara in view of the Feasibility Study; claims 7 and 8 are obvious over Uehara in view of the Feasibility Study and Perumana; and 6) claim 10 is obvious over Uehara in view of the Feasibility Study and Youssef. IPR2019-00048 challenges claims 1, 9, 10, 17, and 18 across four different grounds: 1) claims 1, 17, and 18 are obvious over "A Scalable 6-to-18 GHz Concurrent Dual-Band

Quad-Beam Phased-Array Receiver in CMOS,” by Sanggeun Jeon, Yu-Jiu Wang, Hua Wang, Florian Bohn, Arun Natarajan, Aydin Babakhani, and Ali Hajimiri (“Jeon”) in view of U.S. Patent Application Publication No. 2010/0237947 (“Xiong”); 2) claims 9 and 10 are obvious over Jeon in view of Xiong and Youssef; 3) claims 1, 17, and 18 are obvious over Jeon in view of Xiong and the Feasibility Study; and 4) claims 9 and 10 are obvious over Jeon in view of Xiong, the Feasibility Study, and Youssef.

Pre-SAS, it was not only appropriate for the Board to deny institution of redundant grounds, it was commonplace. *See, e.g., Toyota Motor Corp. v. American Vehicular Sciences LLC*, IPR2013-00423, 2014 WL 2507979, Paper 14 (PTAB Jan. 13, 2014); *Broadcom Corp. v. Telefonaktiebolaget L. M. Ericsson*, IPR2013-00602, Paper 27 (PTAB Mar. 10, 2014); *Harmonic, Inc. v. Avid Technology, Inc.*, IPR2013-00252, Paper 12 (PTAB Sept. 25, 2013). Post-SAS, it remains appropriate for the Board to exercise its discretion under 35 U.S.C. §314(a) to deny redundant *petitions*. Here, Petitioner challenges independent claims 1 and 17, and dependent claim 18 in three separate petitions, and challenges dependent claims 7, 8, 10, and 11 in two petitions. Petitioner thus challenges nearly overlapping sets of claims with grounds that are substantially the same as each other and applied in the same manner. For example, in separate petitions, Petitioner alleges that Lee and Uehara each anticipate claims 1, 11, 17, and 18. The fact that both references are relied upon to anticipate

the claims evidences that the anticipatory grounds present substantially the same argument applied in the same way – that Lee and Uehara each allegedly teach all of the limitations of claims 1, 11, 17, and 18. *See Conopco, Inc. DBA Unilever v. The Proctor & Gamble Company*, IPR2014-00628, Paper 21 at *9 (PTAB Oct. 20, 2014) (holding that even though the anticipatory references were not the same, they presented “substantially the same argument; namely, that the prior art identifies, with anticipatory specificity,” the elements of the claims). Petitioner has provided no indication that Lee is somehow more relevant or provides different disclosure than the primary references in the other petitions.

Additionally, the petitions all rely on the Feasibility Study as a back-up to the primary references. The Feasibility Study is cited for the same argument in each petition – that it teaches “an input RF signal employing carrier aggregation.” Thus, the combination of Lee and Feasibility Study, Uehara and Feasibility Study, and Jeon, Xiong, and Feasibility Study are cumulative to one another. The remaining grounds involve insignificant secondary references that are relied on for the same duplicative arguments already made. *See Tomtom, Inc. v. Blackbird Tech, LLC*, IPR2017-02025, 2018 WL 1308390, at *7 (PTAB Mar. 12, 2018) (denying institution of a petition challenging the same claims with different prior art combinations because the arguments were substantially the same).

For these reasons, the Board should exercise its discretion under 35 U.S.C. § 314(a) to reject Petitioner’s attempt to attack the same claims across three petitions with substantially the same arguments.

VI. THE PETITION SHOULD BE DENIED INSTITUTION IN VIEW OF THE PARALLEL ITC PROCEEDING

35 U.S.C. §314(a) provides the Director with discretion to deny a petition. See 35 U.S.C. §314(a). When determining whether to exercise this discretion, the Director must “consider the effect of any such regulation [under this section] on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter.” 35 U.S.C. §316(b). The Board’s decisions and its Trial Practice Guide provide guidance for when it is appropriate to deny a petition, including when there are “events in other proceedings related to the same patent, either at the Office, in district courts, or the ITC.” Trial Practice Guide, pg. 10. *See also NHK Spring Co. v. Intri-Plex Tech., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018). In *NHK Spring Co.*, the Board found circumstances warranting denial under § 314(a) where a petitioner asserted the same prior art in a parallel district court proceeding nearing its final stages with expert discovery ending within two months, and trial set to begin in six months (well before a final written decision would issue from the Board). IPR2018-00752, Paper 8 at 20 (“instituting a trial under the facts and circumstances here would be an inefficient use of Board resources ... and

inconsistent with ‘an objective of the AIA ... to provide an effective and efficient alternative to district court litigation.’”)

The instant facts justify the Board exercising its §314(a) discretion to deny institution. Patent Owner filed a District Court Complaint against real-party-in-interest Apple on November 29, 2017. A Scheduling Order in the District Court case issued March 8, 2018, and set a trial date of October 21, 2019. Ex. 2008. Patent Owner filed an ITC Complaint on November 30, 2017.¹ Petitioner had knowledge of and actively participated in the ITC investigation no later than December 14, 2017. The Scheduling Order in the ITC investigation issued February 14, 2018, and set a hearing date of September 17 through September 21, 2018. The Scheduling Order also set deadlines to serve invalidity contentions (April 16, 2018), initial expert reports (May 1, 2018), rebuttal expert reports (May 18, 2018), and a Final Determination target date (January 22, 2019).² Ex. 2011.

Petitioner here relies on the same primary reference on which it relies in the ITC investigation. That reference, Lee, was identified no later than April 16, 2018,

¹ Though Petitioner Intel was not a named respondent in the ITC matter, Intel filed a Statement on the Public Interest on December 14, 2017 urging the ITC to deny Patent Owner’s request for an exclusion order. Ex. 2009 (Intel’s Public Interest Statement). Moreover, IPR real-party-in-interest Apple is a named respondent in the ITC matter. Ex. 2010.

² In view of the recent government shutdown, the Initial Determination and Final Determination Target Dates have been postponed until March 26, 2019 and July 26, 2019 respectively. Ex. 2012.

when Apple served the invalidity contentions. With full knowledge of the schedule in the ITC investigation, Petitioner made the strategic decision to wait nearly seven months after serving full invalidity contentions before filing its serial attack on the validity of the '356 Patent. Thus, before even filing the Petition, Petitioner already received the benefit of full expert briefing, and a full ITC hearing, on the underlying issues raised in this Petition.

The Board has previously found lesser facts weigh in favor of denying institution. In *NHK Spring Co.*, the Board denied institution where the parallel district court case was scheduled to go to trial approximately seven months after the institution decision. There, like here, the petitioner relied on the same prior art and the parallel proceeding will resolve the same issues before any trial on the petition concludes. The Board held that “instituting a trial under the facts and circumstances here would be an inefficient use of Board resources.” *NHK Spring Co.*, Case IPR2018-00752 at *19-20.

By filing the Petition so late, Petitioner and Apple seek to re-litigate an issue that has already been fully litigated in a different forum and will be decided in the ITC and the District Court well before the Board can reach a final written decision. With the Final Determination due July 26, 2019, the ITC investigation will be complete around the same time the Board’s institution decision is due. Critically, the ITC investigation will have had the opportunity to be appealed, fully briefed, and

the argument heard all by the time the Board's final written decision is due. The Federal Circuit will issue its opinion, and the time to appeal to the Supreme Court will have elapsed, long before an appeal of the Board's final written decision can be resolved.

Likewise, the District Court case will go to trial, post-trial motions will be resolved, and the case appealed by the time the Board's final written decision is due. When another forum will decide the same issues earlier than the Board, this fact weighs in favor of denying institution.³ *See NHK Spring Co.*, Case IPR2018-00752 at *20 (finding that the advanced state of a parallel proceeding, where a trial was scheduled to occur six months prior to the Board's deadline to issue a final written decision, would be an inefficient use of Board resources and weighed in favor of denying the petition under § 314(a)).

Petitioner should not be rewarded for its dilatory efforts with an opportunity to re-litigate the same issues that another forum fully heard and will fully decide. For the reasons discussed above, the Board should exercise its discretion under §314(a) and deny institution.

³ In other proceedings, the Board noted that the differing burden of proof in the ITC/District Court weighs against exercising its discretion to deny institution. *See, e.g., Intel Corporation v. Qualcomm Inc.*, IPR2018-01153, Paper 9 at *15 (PTAB Jan. 16, 2019). However, the same contrasts in the burden of proof existed in *NHK Spring*, and the Board still denied institution. Moreover, the Trial Practice Guide explicitly contemplates that it may be appropriate to deny institution due to events in other proceedings. *See supra* at p. 19.

VII. CONCLUSION

For the reasons set forth above, Qualcomm respectfully requests that the Board deny institution of the petition for *inter partes* review.

Respectfully submitted,

Date: March 1, 2019

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TABLE OF EXHIBITS

Exhibit	Description
2001	Advisory Action dated June 16, 2014
2002	Request for Continued Examination dated July 17, 2014
2003	Request for Continued Examination dated May 20, 2015
2004	IDS with Examiner's Initials
2005	International Search Report and Written Opinion
2006	Original Claims from the '423 Application
2007	Original Claims from related PCT Application
2008	District Court Scheduling Order
2009	Intel's ITC Statement of Public Interest
2010	ITC Complaint
2011	ITC Scheduling Order
2012	ITC Revised Schedule

CERTIFICATE OF COMPLIANCE

I, the undersigned, certify that the above Patent Owner Preliminary Response complies with the applicable type-volume limitations of 37 C.F.R. § 42.24 (b)(1). This Preliminary Response contains 5647 words, as counted by the word count function of Microsoft Word. This is less than the limit of 14,000 words as specified by 37 C.F.R. § 42.24(a)(i).

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The undersigned hereby certifies that a copy of the foregoing PRELIMINARY PATENT OWNER RESPONSE TO PETITION FOR INTER PARTES REVIEW PURSUANT TO 37 C.F.R. § 42.107 was served on March 1, 2019 by email, as follows:

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