UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., Petitioner,

v.

MAXELL, LTD., Patent Owner.

IPR2020-00203 Patent 6,408,193 B1

Before LYNNE E. PETTIGREW, MINN CHUNG, and KEVIN C. TROCK, *Administrative Patent Judges*.

PETTIGREW, Administrative Patent Judge.

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

I. INTRODUCTION

Petitioner, Apple Inc., filed a Petition for *inter partes* review of claims 1, 6, and 7 of U.S. Patent No. 6,408,193 B1 (Ex. 1001, "the '193 patent"). Paper 1 ("Pet."). Patent Owner, Maxell, Ltd., filed a Preliminary Response. Paper 7 ("Prelim. Resp."). Pursuant to our authorization for supplemental briefing on the issue of discretionary denial under 35 U.S.C. § 314(a), Petitioner filed a Reply to Patent Owner's Preliminary Response, and Patent Owner filed a Sur-reply. Paper 9 ("Pet. Reply"); Paper 11 ("PO Sur-reply"); *see* Paper 8, 3 (authorizing reply and sur-reply).

Under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), we have authority to institute an *inter partes* review if "the information presented in the petition . . . and any response . . . 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(a). The Board, however, has discretion to deny a petition even when a petitioner meets that threshold. *Id.*; *see, e.g., 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."); *NHK Spring Co. v. Intri-Plex Techs., Inc.,* IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential, designated May 7, 2019).

Having considered the parties' submissions, and for the reasons explained below, we exercise our discretion under 35 U.S.C. §314(a) to deny institution of *inter partes* review.

II. BACKGROUND

A. Related Matters

The parties identify the following district court proceeding related to the '193 patent: *Maxell, Ltd. v. Apple Inc.*, No. 5:19-cv-00036 (E.D. Tex., filed Mar. 15, 2019) ("the underlying litigation"). Pet. 69; Paper 4, 1 (Patent Owner's Mandatory Notices). The parties also identify an earlier PTAB proceeding in which institution of *inter partes* review of claims 1–7 of the

[']193 patent was denied: *ZTE Corp. v. Maxell, Ltd.*, IPR2018-00237, Paper 10 (PTAB June 14, 2018). Pet. 69; Paper 4, 1.

B. Overview of the '193 Patent

The '193 patent describes a cellular telephone used in a Code Division Multiple Access (CDMA) system. Ex. 1001, 1:5–8. In order to communicate with base stations in a cellular network, cellular telephones must transmit signals at a power level sufficient to be received by the base stations. *Id.* at 1:11–23. Distance from the base station and surrounding terrain are among the factors that influence the amount of power required. *Id.* at 1:17–23. At the same time, it is important to minimize power consumption in a cellular telephone in order to increase battery life and the length of time the telephone can operate without requiring recharging. See *id.* at 2:7–9. In order to operate effectively, cellular telephones adjust transmission power to ensure that transmission power falls within a range required to reach a particular base station. See id. at 1:32–35, 1:45–59. The '193 patent purports to address the problem of balancing transmission power with battery life in cellular telephones by correlating the gain of a variable amplitude amplifier in a cellular telephone transmitter with the bias condition of a power amplifier in the transmitter. Id. at 2:40–44, 6:6–54.

Figure 2 of the '193 patent is reproduced below:

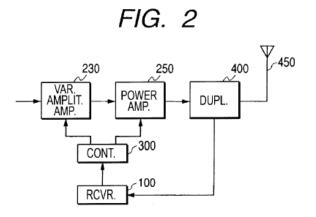


Figure 2 above is a block diagram of components in a main part of a cellular telephone disclosed in the '193 patent. *Id.* at 3:44–45. The cellular telephone in Figure 2 includes receiver 100, controller 300, duplexer 400, and antenna 450. *Id.* at 4:33–36. The cellular telephone in Figure 2 also includes variable amplitude amplifier 230 and power amplifier means 250, which are part of transmitter 200 (not shown in Figure 2). *Id.* at 5:17–20.

In one embodiment, controller 300 controls a gain of variable amplitude amplifier 230 so that transmitter 200 can provide a required transmitting power to antenna 450. *Id.* at 2:40–43, 6:1–12. Controller 300 also controls a bias condition of power amplifier means 250. *Id.* at 2:40–43, 6:12–15. Values of the gain and bias condition are correlated according to a function and are stored in memory 330 within controller 300. *Id.* at 6:35–46.

Examples of predetermined values of the gain and bias stored in memory are shown in Figure 4 of the '193 patent, reproduced below:



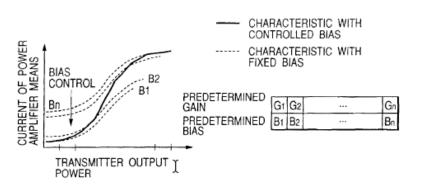


Figure 4 above illustrates a characteristic curve of power amplifier means 250 when its bias is controlled according to predetermined bias values corresponding to predetermined gain values for variable amplitude amplifier 230. *Id.* at 3:52–53, 6:4–19. The value of the bias decreases as the value of the gain decreases, so that the characteristic curve of power amplifier means 250 gradually decreases from that of [bias condition] B_n to that of B_1 as the transmitter output power decreases. *Id.* at 6:29–35.

C. Illustrative Claims

Independent claims 1 and 7 are illustrative of the claimed subject matter and reproduced below:

1. A cellular telephone adapted to be used in a CDMA system, comprising:

an antenna for receiving a first communication signal and a transmitting power control signal from a cell-site station and transmitting a second communication signal to the cell-site station,

a duplexer connected to said antenna,

a receiver connected to said antenna through said duplexer for converting said first communication signal into a voice signal code, and for outputting a power control signal derived from said transmitting power control signal sent from said cell-site station,

an encoder/decoder apparatus connected to said receiver and an acoustic transducer for converting said voice signal code into an audio signal for driving said acoustic transducer and converting an audio input signal from said acoustic transducer into an input voice code signal,

a transmitter connected to said encoder/decoder apparatus and to said antenna through said duplexer for converting said input voice code signal into said second communication signal, and

a controller connected to said receiver and said transmitter for controlling an amplitude of said transmitter,

wherein said transmitter includes a variable amplitude amplifier and a power amplifier, said controller includes a central processing unit and a memory, said controller controls said transmitter so that an open-loop power control is performed and then a closed-loop power control is performed according to said power control signal so as to control the transmitted power to converge into a range required by said cell-site station, and said controller controls a gain of said variable amplitude amplifier and a bias condition of said power amplifier using a set of bias and gain data stored in said memory.

7. A cellular telephone adapted to be used in a CDMA system, comprising:

an antenna for receiving a first communication signal and a transmitting power control signal from a cell-site station and transmitting a second communication signal to the cell-site station,

a duplexer connected to said antenna,

a receiver connected to said antenna through said duplexer for converting said first communication signal into a voice signal code, and for outputting a power control signal derived from said transmitting power control signal sent from said cell-site station,

> an encoder/decoder apparatus connected to said receiver and an acoustic transducer for converting said voice signal code into an audio signal for driving said acoustic transducer and converting an audio input signal from said acoustic transducer into an input voce code signal,

a transmitter connected to said encoder/decoder apparatus and to said antenna through said duplexer for converting said input voice code signal into said second communication signal, and

a controller connected to said receiver and said transmitter for controlling an amplitude of said transmitter,

wherein said transmitter includes a variable amplitude amplifier and a power amplifier, said power amplifier includes a maximum power detector, said controller includes a central processing unit and a memory, said controller controls said transmitter so that an open-loop power control is performed and then a closed-loop power control is performed according to said power control signal so as to control the transmitted power to converge into a range required by said cell-site station, said controller controls a gain of said variable amplitude amplifier using a function defining a relation between bias data and gain data stored in said memory, and said maximum power detector controls an[] output power of said power amplifier.

Ex. 1001, 10:62–11:31, 12:8–47.

D. Asserted Ground of Unpatentability

Petitioner asserts that the challenged claims are unpatentable based on the following ground (Pet. 7):

Claims Challenged	35 U.S.C. §	References
1, 6, 7	$103(a)^{1}$	Waldroup, ² Nakayama ³

In support of its contentions, Petitioner relies on the Declaration of Dr. William Redman-White (Ex. 1006).

III. ANALYSIS

Patent Owner contends we should exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review due to the advanced stage of the underlying litigation in the United States District Court for the Eastern District of Texas. Prelim. Resp. 2–24; PO Sur-reply 1–10. According to Patent Owner, instituting an *inter partes* review "would needlessly duplicate" the district court action and "unnecessarily waste the Board's resources." Prelim. Resp. 4 (citing *NHK*, Paper 8 at 20 (denying institution)).

As noted above, after Patent Owner filed its Preliminary Response, we authorized the parties to submit supplemental briefing on the issue of

¹ The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. § 103 effective March 16, 2013. Because the '193 patent has an effective filing date prior to the effective date of the applicable AIA amendment, we refer to the pre-AIA version of § 103. ² U.S. Patent No. 6,236,863 B1, issued May 22, 2001 (Ex. 1004). ³ Japanese Unexamined Patent Application Publication No. JP H10-285059,

published Oct. 23, 1998 (Ex. 1005). Nakayama is a Japanese-language publication (Ex. 1005, 15–26) that was filed with an English-language translation (*id.* at 2–13) and an affidavit attesting to the accuracy of the translation, as required by 37 C.F.R. § 42.63(b) (*id.* at 1). Our citations to Nakayama are to the certified English translation.

discretionary denial under 35 U.S.C. § 314(a). Paper 8, 3. We specifically requested the parties to address the factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential, designated May 5, 2020) (*"Fintiv"*). *Id. Fintiv* provides several factors that balance considerations of system efficiency, fairness, and patent quality when a patent owner raises an argument for discretionary denial due to the advanced state of a parallel proceeding. *Fintiv*, Paper 11 at 5–6. These factors are:

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.

Id.

We now consider these factors to determine whether we should exercise discretion to deny institution under 35 U.S.C. § 314(a). "[I]n evaluating the factors, the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Id.* at 6.

A. Fintiv Factors 1–3

The first three *Fintiv* factors in this case are interrelated based on the factual circumstances of the underlying litigation. The district court trial

date is set for October 26, 2020. Pet. Reply 7; PO Sur-reply 1; Ex. 2003. As the parties recognize, a trial beginning this October will be completed about eight months before a final written decision would be due in this proceeding. Pet. Reply 7; PO Sur-reply 3. Petitioner notes that it filed a petition for writ of mandamus with the U.S. Court of Appeals for the Federal Circuit addressing the district court's denial of its motion to transfer. Pet. Reply 7 (citing Ex. 1046). The Federal Circuit, however, recently denied the petition, so the trial date remains set for October 26, 2020, in the Eastern District of Texas. *See* PO Sur-Reply 4 (citing *In re Apple Inc.*, No. 2020-115, 2020 WL 2125340 (Fed. Cir. Apr. 22, 2020)); *see also* Ex. 3001 (*In re Apple Inc.*, No. 2020-115 (Fed. Cir. June 25, 2020) (order denying petition for rehearing en banc)).

Petitioner also asserts that the COVID-19 pandemic may affect the trial schedule. Pet. Reply 7. Patent Owner cites a standing order in the court where the underlying litigation is pending "to keep cases moving" despite COVID-19. PO Sur-reply 4 (quoting Ex. 2029). In any event, Patent Owner argues, even if the trial date were delayed by three months, the trial still would precede a final written decision by several months. *Id.* Although delays due to the COVID-19 pandemic may be a real possibility despite the trial court's standing order, we agree with Patent Owner that even a delayed trial may precede a final written decision in this proceeding. Thus, the second *Fintiv* factor—proximity of the court's trial to the Board's projected statutory deadline for a final written decision—favors the exercise of discretionary denial.

Petitioner moved for a stay in the underlying litigation, but the district court denied the motion. *See* Pet. Reply 1; PO Sur-reply 2; Ex. 3002 (*Maxell, Ltd. v. Apple Inc.*, No. 5:19-cv-00036, Dkt. No. 298 (E.D. Tex.

Apr. 27, 2020)). Among other reasons, the court determined "[t]he case is not in its infancy and is far enough along that a stay would interfere with ongoing proceedings." Ex. 3002, 4. Notably, the court denied the motion without prejudice. *Id.* at 6. Although the court stated that "[t]he late stage of the proceedings will certainly weigh against granting a stay" if Petitioner were to file a renewed motion for a stay, the court also stated it could not "say now that the late stage would necessarily outweigh the potential simplification of issues following institution decisions" in this and other *inter partes* review proceedings. *Id.* Given the court's apparent willingness to reconsider a motion to stay if an institution decision simplified issues for trial, but also considering the late stage of the district court proceeding, with trial scheduled to begin in less than four months, the first *Fintiv* factor whether a stay has been or may be granted—does not weigh for or against discretionary denial in this case.

Regarding the third *Fintiv* factor, Petitioner argues that aside from claim construction proceedings, "the district court has not invested other substantive efforts and the litigation is not 'advanced.'" Pet. Reply 8. Petitioner asserts that summary judgment is still months away, the court is unlikely to tackle invalidity until trial, and fact discovery and depositions are ongoing. *Id.* Patent Owner's Sur-reply, however, provides updated information regarding the status of the underlying litigation. *See generally* PO Sur-reply. As evidence of the court's investment of time and resources, Patent Owner highlights the court's claim construction hearing and order and its rulings on various motions. *Id.* at 5. As for the parties' investment in the underlying litigation, Patent Owner notes that fact discovery closed on March 31, 2020, except for some depositions postponed due to COVID-19 that are now complete, and expert discovery was scheduled to close on

June 25, 2020. *Id.* at 6. Thus, much of the court's and the parties' work related to invalidity has been completed in preparation for trial in October 2020. Because at least some of this invested effort, including claim construction and expert discovery, likely has relevance to issues in the Petition, the third *Fintiv* factor favors the exercise of discretionary denial in this case to prevent duplication of work on similar issues by the Board and the district court.

B. Fintiv Factor 4

Petitioner contends there is little overlap between the issues in this case and those in the underlying litigation. Pet. Reply 9–10. First, Petitioner argues that the sole unpatentability ground asserted in the Petition obviousness over Waldroup and Nakayama—is different from the two invalidity grounds asserted in the underlying litigation-obviousness over Mucke⁴ and Nakayama, and obviousness over Waldroup and Mucke. Id. at 9 (citing Pet. 7; Ex. 1047, 3 (Apple's Final Election of Prior Art)). Although both references asserted here also are asserted in the trial court, Petitioner contends the issues are materially different because (1) "Mucke is relied on critically in each district court theory and is not at issue in the IPR," and (2) despite Petitioner's common citations to Waldroup and Nakayama before both tribunals, an obviousness analysis considers whether a person of ordinary skill in the art would have been motivated to combine the references in a specific manner. *Id.* at 9–10. Petitioner further argues that different claims are at issue: Petitioner challenges claims 1, 6, and 7 in this proceeding but only claims 1 and 6 in the underlying litigation. Id.

⁴ U.S. Patent No. 5,548,616, issued Aug. 20, 1996 (Ex. 1012).

According to Petitioner, claim 7 "presents notable, non-overlapping limitations." *Id.* at 10.

Patent Owner argues the issues in this proceeding are substantially the same as in the underlying litigation. PO Sur-reply 7. Patent Owner notes that at the time the Petition was filed, Petitioner relied on the same obviousness theory based on Waldroup and Nakayama in district court. Prelim. Resp. 8–10 (citing Ex. 2005, 64 (Apple's Invalidity Contentions); Ex. 2004 (detailing Apple's preliminary invalidity contentions)); PO Sur-reply 7–8. Patent Owner notes further that Petitioner's Final Election of Prior Art in the underlying litigation, served on April 7, 2020, continues to rely on Waldroup and Nakayama, albeit in separate grounds. Prelim. Resp. 10; PO Sur-reply 7–8; see Ex. 1047, 3 (Apple's Election of Prior Art). Comparing the Petition's citations to Waldroup and Nakayama for each limitation of claim 1 with those in Petitioner's district court preliminary invalidity contentions, Patent Owner asserts that the substantial overlap shows the trial will address the same issues raised in the Petition. Prelim. Resp. 8–9 (comparing Pet. 25–58 with Ex. 2004, 1–39); PO Sur-reply 7. Patent Owner also notes that Mucke is part of the record here and is cited by Dr. Redman-White in his declaration testimony, although we recognize that Petitioner is not applying Mucke against the challenged claims here. PO Sur-reply 7 (citing Ex. 1006 ¶¶ 40–41, 59, 68–69); see Ex. 1012.

Patent Owner further contends it was required to narrow the set of asserted claims in the underlying litigation. PO Sur-reply 8. Patent Owner argues that Petitioner cannot "avoid denial simply by challenging an extraneous unasserted claim (Claim 7) that raises the same invalidity issues as the asserted ones (Claims 1 and 6)." *Id.* In addition, Patent Owner contends that Petitioner itself acknowledges substantial overlap between

claims 1 and 7, as it relies solely on its claim 1 analysis for twelve out of fifteen limitations in claim 7. *Id.* (citing Pet. 61–68).

This fourth *Fintiv* factor involves consideration of inefficiency concerns and the possibility of conflicting decisions. *Fintiv*, Paper 11 at 12. Therefore, "if 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." Id. In this case, although the obviousness ground asserted here is not identical to either ground in Petitioner's final invalidity contentions, both of the references relied on in the Petition are asserted in the underlying litigation. As illustrated by Patent Owner's comparison of citations in the Petition with those in Petitioner's preliminary invalidity contentions in district court, substantial overlap exists between the disclosures of Waldroup and Nakayama relied on in the two proceedings. See Prelim. Resp. 8–9 (comparing Pet. 25–58 with Ex. 2004, 1-39). Thus, arguments and evidence regarding the teachings of Waldroup and Nakayama in the Petition are substantially the same as those in the underlying litigation. Although there may be some differences in the reasoning presented in the various obviousness grounds for combining the prior art teachings, we nevertheless find the assertion of Waldroup and Nakayama in both proceedings may result in duplication of work and create the potential for inconsistent decisions.

We also determine the Petition challenges substantially the same claims as those challenged in the underlying litigation. Independent claim 7 is the only claim challenged in this proceeding but not in the trial court. As Patent Owner points out, most of claim 7's limitations also are recited in claim 1, which is at issue in both proceedings. *See* PO Sur-reply 8 (citing Pet. 61–68). On the other hand, Petitioner correctly asserts that claim 7

uniquely requires the claimed "power amplifier" to "include[] a maximum power detector" that "controls an[] output power of said power amplifier." Ex. 1001, 12:35–36, 12:46–47; *see* Pet. Reply 10.

To the extent the challenge to claim 7 in this proceeding might favor institution to serve the interest of system efficiency and integrity, our initial inspection of the merits on the record before us suggests a weakness in the Petition that offsets such concerns. See Fintiv, Paper 11 at 14–16 (under the sixth Fintiv factor, identifying weaknesses regarding the merits as a potentially relevant part of a balanced assessment in determining whether the Board should exercise discretionary denial). As noted, claim 7 requires a power amplifier that includes a maximum power detector. The Petition identifies power amplifier 19 in Figure 1 of Nakayama as corresponding to the claimed "power amplifier." Pet. 44–45 (citing Ex. 1005 ¶ 21) (analysis of "power amplifier" in claim 1); id. at 62 (referring to claim 1 analysis for the same limitation in claim 7). For the recited "maximum power detector" in claim 7, the Petition relies on detection circuit 31 in Nakayama's Figure 1. Id. at 62 (citing Ex. 1005 ¶ 23). As Patent Owner points out, however, detection circuit 31 is not part of power amplifier 19 in Figure 1 of Nakayama. Prelim. Resp. 58–59 (citing Ex. 1005, Fig. 1). Petitioner does not explain why a person of ordinary skill in the art would have considered power amplifier 19 to include detection circuit 31 or would have modified Nakayama in that manner. See id.; Pet. 44–45. Thus, Petitioner does not demonstrate sufficiently Nakayama teaches or renders obvious a "power amplifier" that "includes a maximum power detector," as recited in claim 7.

In summary, the two references in the Petition's single obviousness ground also are asserted in the district court proceeding, so that institution of an *inter partes* review may result in duplicative efforts by the Board and the

trial court as to how the references teach limitations of the challenged claims. Both tribunals would address claims 1 and 6, and the weakness of Petitioner's showing with respect to claim 7 counterbalances any efficiency that might be gained from *inter partes* review of that claim. For these reasons, we determine that the fourth *Fintiv* factor—overlap between issues raised in the Petition and in the parallel proceedings—on balance favors the exercise of discretionary denial.

C. Fintiv Factor 5

Both parties acknowledge that Petitioner here is the defendant in the underlying litigation. Pet. Reply 10; PO Sur-reply 9. Because the trial court may reach the overlapping issues before the Board would in a final written decision, the fifth *Fintiv* factor favors the exercise of discretionary denial.

D. Fintiv Factor 6

Under the sixth *Fintiv* factor, which takes into account any other relevant circumstances, Patent Owner argues that Petitioner unreasonably delayed in filing the Petition. Prelim. Resp. 13–16; PO Sur-reply 10. Petitioner explains that the underlying litigation initially involved ten different patents and "132 possibly-asserted claims," and that it needed time to locate relevant prior art and prepare petitions for *inter partes* review. Pet. Reply 7–8. Having considered the particular factual circumstances of this case, we do not consider Petitioner's filing untimely.

Patent Owner also references its analysis of the factors enumerated in *General Plastic Industrial Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB May 4, 2016) (precedential). Prelim. Resp. 5–24; PO Sur-reply 10. In addition to addressing facts discussed above with respect to the *Fintiv* factors, Patent Owner contends that Petitioner used the Board's denial of institution in IPR2018-00237 as a roadmap to gain an unfair

tactical advantage here. PO Sur-reply 10. That proceeding, however, involved a different petitioner and different prior art and, therefore, is not relevant to the instant analysis. *See* Pet. 8.

As noted in *Fintiv*, a balanced assessment of factors may include consideration of the merits. *Fintiv*, Paper 11 at 14–15. Neither party argues that any particular strength or weakness of the merits bears on our decision whether to exercise discretionary denial. *See* Pet. Reply 10; PO Sur-reply 10. To the extent we have considered the merits in our determination, the discussion of the fourth factor above includes our analysis.

Finally, we note that Petitioner presents extensive policy arguments against the Board's application of *Fintiv* and *NHK* in determining whether to exercise discretion to deny institution under 35 U.S.C. § 314(a). Pet. Reply 1–6. We need not address these arguments, as the Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office has designated *Fintiv* and *NHK* precedential decisions of the Board.

E. Conclusion

Based on the particular circumstances of this case, we determine that instituting an *inter partes* review would be an inefficient use of Board resources. As discussed above, the trial in the underlying litigation is currently scheduled to begin in less than four months and may conclude several months before we would reach a final decision in this proceeding. The district court and the parties have expended effort in preparing for the upcoming trial that will address issues that substantially overlap with those raised in the Petition. All of the *Fintiv* factors discussed above either weigh in favor of exercising discretion to deny institution or are neutral. On

balance, after a holistic consideration of the relevant facts, we conclude that efficiency and integrity of the system are best served by denying institution. Thus, we exercise our discretion under § 314(a) to deny institution of *inter partes* review.

IV. ORDER

Accordingly, it is ORDERED that the Petition is *denied*; and FURTHER ORDERED that no *inter partes* review is instituted.

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