

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CANADIAN SOLAR INC. AND
CANADIAN SOLAR (USA) INC.,
Petitioner,

v.

THE SOLARIA CORPORATION,
Patent Owner.

IPR2021-00659
Patent 10,651,333 B2

Before TERRENCE W. McMILLIN, JON M. JURGOVAN, and
MONICA S. ULLAGADDI, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

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

I. INTRODUCTION

Canadian Solar Inc. and Canadian Solar (USA) Inc. (“Petitioner”)¹ filed a Petition to institute an *inter partes* review of claims 1, 2, 6, 8–10, and 12–20 (the “challenged claims”) of U.S. Patent No. 10,651,333 B2 (Ex. 1001, the “‘333 patent”) pursuant to 35 U.S.C. § 311 *et seq.* Paper 1 (“Petition” or “Pet.”). The Solaria Corporation (“Patent Owner”)² filed a Preliminary Response. Paper 8 (“Preliminary Response” or “Prelim. Resp.”). With our authorization, Petitioner thereafter filed a Reply (Paper 11 (“Reply”)) and Patent Owner filed a Sur-reply (Paper 13 (“Sur-reply”)). The Preliminary Response, Reply, and Sur-reply address only the issue of discretionary denial. After considering the Petition, the Preliminary Response, the Reply, the Sur-reply, and the evidence of record, we exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review.

A. Related Proceedings

The parties identify the following related proceedings:

Certain Shingled Solar Modules, Components Thereof, and Methods for Manufacturing the Same, Inv. No. 337-TA-1223 (US International Trade Commission) (the “ITC investigation”);

The Solaria Corporation v. Canadian Solar Inc., Case No. 4:20-cv-02169 (N.D. Cal.) (the “District Court litigation”) (Pet. 2; Paper 5, 2); and IPR2021-00095 (PTAB).

¹ Petitioner identifies Canadian Solar Inc. and Canadian Solar (USA) Inc. as the real parties in interest to this proceeding. Pet. 2.

² Patent Owner identifies The Solaria Corporation as the real party in interest. Paper 5, 2.

B. The '333 Patent

The '333 patent is titled “Tiled Solar Cell Laser Process.” Ex. 1001, code (54). The patent is “directed to photovoltaic systems and manufacturing processes and apparatuses thereof.” *Id.* at 1:15–16. The patent describes that “[c]onventionally, solar cells are mechanically cut with a saw. However, this technique has numerous disadvantages.” *Id.* at 2:22–23.

The '333 patent describes “providing a solar cell comprising either a single crystalline silicon material or a polycrystalline solar cell, the solar cell having a backside and a front side and a thickness, the backside having a metal material,” and “placing the front side of the solar cell on a platen such that the backside is facing a laser source.” *Id.* at 2:40–45. The patent further describes “initiating a laser source to output a laser beam having a wavelength from 200 to 600 nanometers and a spot size of 18 to 30 microns,” thus “subjecting a portion of the backside to the laser beam at a power level ranging from about 20 Watts to about 35 Watts to cause an ablation to form a scribe region having a depth, width, and a length.” *Id.* at 2:45–51. The scribe region is then cut to a “depth being from 40% to 60% of a thickness of the solar cell, the width being between 16 and 35 microns, and the length being equivalent to a length of the solar cell.” *Id.* at 2:51–54. The patent also discloses “delivering a jet of fluid within a vicinity of the ablation to carry away particulate material, and capturing the particulate material using a vacuum.” *Id.* at 3:13–16. The patent further describes “repeating the . . . subjecting to create a plurality of scribe regions spatially disposed on the backside of the solar cell.” *Id.* at 2:54–56. The patent mentions that an “air stream . . . picks up dust particles generated by the

laser cutting process and directs those dust particles from the chamber.” *Id.* at 9:52–55; *see also* 12:65–67. The patent further mentions “capturing the particulate material using a vacuum.” *Id.* at 12:67–13:1.

Figure 29, reproduced below, shows an isometric view of a scribe region of a solar cell.

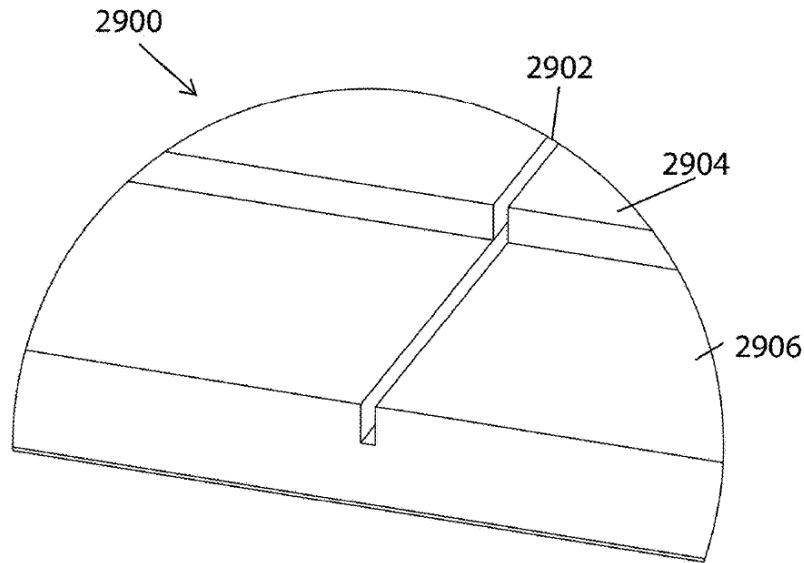


Figure 29 depicts scribe region 2900, kerf 2902, backing material 2904, and photovoltaic material 2906. *Id.* at 8:13–18.

C. Challenged Claims

Petitioner challenges claims 1, 2, 6, 8–10, and 12–20 of the ’333 patent. Pet. 1. Claim 1, the sole independent claim, is reproduced below.

1. A method comprising:
 - providing a solar cell comprising either a single crystalline silicon material or a polycrystalline solar cell, the solar cell having a backside and a front side and a thickness, the backside having a metal material;
 - placing the front side of the solar cell on a platen such that the backside is facing a laser source; initiating a laser source to output a laser beam;
 - initiating a laser source to output a laser beam;

subjecting a portion of the backside to the laser beam at least twice to cause an ablation to form a scribe region having a depth, width, and a length, the depth being from 40% to 60% of the thickness of the solar cell, and the length being equivalent to a length of the solar cell;
removing a vaporized material from a vicinity of the ablation; and capturing the vaporized material using a vacuum.

D. The Asserted Grounds

Petitioner challenges claims 1, 2, 6, 8–10, and 12–20 of the '333 patent based on the grounds set forth in the table below.

Claim(s) Challenged	35 U.S.C. §	References
1, 2, 6, 8, 9, 12–16	103	Jinno-205 ^{3,4} , Suutarinen ⁵
10	103	Jinno-205, Suutarinen, Liu ⁶
13	103	Jinno-205, Suutarinen, Morad ⁷
17, 18	103	Jinno-205, Suutarinen, Spectra-Physics ⁸
19	103	Jinno-205, Suutarinen, Shamoun ⁹

³ JP 2008-60205 A, published Mar. 13, 2008 (Ex. 1005). Petitioner contends this reference is prior art under 35 U.S.C. § 102(a). Pet. 17.

⁴ Petitioner refers to this reference as “Jinno-205,” to distinguish it from Jinno '604.

⁵ US 2008/0067160 A1, published Mar. 20, 2008 (Ex. 1006). Petitioner contends this reference is prior art under 35 U.S.C. § 102(a). Pet. 20.

⁶ US 6,580,054 B1, issued June 17, 2003 (Ex. 1028). Petitioner contends this reference is prior art under 35 U.S.C. § 102. Pet. 56.

⁷ US 2015/0349167 A1, published Dec. 3, 2015 (Ex. 1048). Petitioner contends this reference is prior art under 35 U.S.C. § 102. Pet. 61 n.5.

⁸ “Laser Edge Isolation Scribing for Crystalline Silicon Solar Cell Production,” published Oct. 25, 2012 (retrieved from https://web.archive.org/web/20121025174411/http://assets.newport.com/webDocuments-EN/images/Laser_Edge_Isolation_Scribing_SP.pdf) (Ex. 1011). Petitioner contends this reference is prior art under 35 U.S.C. § 102. Pet. 68.

⁹ US 2010/0155379 A1, published June 24, 2010 (Ex. 1017). Petitioner contends this reference is prior art under 35 U.S.C. § 102. Pet. 72.

Claim(s) Challenged	35 U.S.C. §	References
20	103	Jinno-205, Suutarinen, Shamoun, Daly ¹⁰

Petitioner also relies on a declaration of Dr. Stephen P. Shea (Ex. 1050) as providing support for the contentions in the Petition. Patent Owner has not submitted a declaration or other testimonial evidence of an expert. Patent Owner has not argued that any of the cited references do not qualify as prior art. *See generally* Prelim. Resp.

II. ANALYSIS

A. Patent Owner's Argument under 35 U.S.C. § 314(a) Based on Parallel Proceeding

Institution of *inter partes* review is discretionary. *See 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.”); 35 U.S.C. § 314(a). The Board has held that the advanced state of a parallel district court action is a factor that may weigh in favor of denying a petition under § 314(a). *See NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential); Patent Trial and Appeal Board, Consolidated Trial Practice Guide, 58 & n.2 (Nov. 2019) (“Trial Practice Guide”), available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf>. We consider the following factors to assess “whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding”:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;

¹⁰ US 3,626,141, issued Dec. 7, 1971 (Ex. 1030). Petitioner contends this reference is prior art under 35 U.S.C. § 102. Pet. 75.

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.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). 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.” *Id.* at 6. The *Fintiv* factors have been applied where there was a parallel proceeding before the ITC. *See, e.g., Apple Inc. v. Neodron Ltd.*, IPR2020-00778, Paper 10 at 18 (Sept. 14, 2020); *see also Fintiv*, Paper 11 at 8 (stating that “even though the Office and the district court would not be bound by the ITC’s decision, an earlier ITC trial date may favor exercising authority to deny institution . . . if the ITC is going to decide the same or substantially similar issues to those presented in the petition.”).

Here, there are two parallel proceedings, the District Court litigation and the ITC investigation. *See* Section I.A. The District Court litigation was filed on March 31, 2020. Claim construction briefing has been completed and the *Markman* hearing is scheduled for late September 2021. The parties have not provided any update on whether the *Markman* hearing has been held. Reply 1. No trial date has been set at this time.

The ITC investigation was filed on September 15, 2020. The target date for completion of the ITC investigation is February 22, 2022. Ex. 2001, 4. The evidentiary hearing was concluded in August 2021, and the final

initial determination is due on October 22, 2021. *Id.* The *Markman* hearing was held on February 11, 2021. *Id.* at 2.

Patent Owner contends we should exercise our discretion to deny the Petition under § 314(a), “because the invalidity arguments [Petitioner] raise[s] here will be resolved in a pending ITC Investigation before this proceeding will conclude.” Prelim. Resp. 1. Petitioner contends “the *Fintiv* factors undeniably weigh in favor of institution.” Reply 2.

1. *Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted*

Fintiv indicated that, in previous Board decisions, the existence of a district court stay pending Board resolution of an *inter partes* review has weighed strongly against discretionary denial, while a denial of such a stay request sometimes weighs in favor of discretionary denial. *Fintiv*, Paper 11 at 6–8. With regard to this factor, Petitioner states “Judge Tigar, who is presiding over the district court case, routinely grants stays after institution of IPRs.” Pet. 8 (citing *Symantec Corp. v. Zscaler, Inc.*, 17-cv-04426-JST, 2018 WL 3539267 at *1 (N.D. Cal. July 23, 2018); *E.Digital Corp. v. Dropcam, Inc.*, 14-cv-04922-JST, 2016 WL 658033 at *5 (N.D. Cal. Feb. 18, 2016); *Cypress Semiconductor Corp. v. GSI Tech., Inc.*, 13-cv-02013-JST, 2014 WL 5021100, at *5 (N.D. Cal. Oct. 7, 2014). Accordingly, Petitioner contends this factor should be neutral. Reply 3 (citing *Samsung Elecs. Co. v. Dynamics Inc.*, IPR2020-00505, Paper 11, 11 (PTAB Aug. 12, 2020)).

Patent Owner contends that “Judge Tigar did not grant Petitioners’ request to postpone all claim construction-related filings in the District Court Case.” Prelim. Resp. 8. Patent Owner further contends that, “[b]y the time any potential institution decision issued in this Investigation, the *Markman*

hearing will have already occurred and there is no reason to believe that at that late stage the case would be stayed.” *Id.* (citing *NetFuel, Inc. v. Cisco Sys., Inc.*, Case No. 5:18-cv-02352, 2020 WL 836714 (N.D. Cal.) (Feb. 20, 2020)). *Id.*

The parties do not dispute that there is currently no stay in the District Court litigation. Pet. 8; Prelim. Resp. 7–9; Reply 2–3; Sur-reply 2. We will not speculate as to whether the District Court litigation will be stayed, as the evidence is inconclusive concerning this factor. Accordingly, we weigh this factor as neutral as to whether to exercise our discretion to deny institution.

2. *Proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*

The proximity factor in *Fintiv*, on its face, asks us to evaluate our discretion in light of a trial date that has been set in a parallel litigation. *See Fintiv*, Paper 11 at 3, 5 (“*NHK* applies to the situation where the district court has set a trial date to occur earlier than the Board’s deadline to issue a final written decision in an instituted proceeding.”; “When the patent owner raises an argument for discretionary denial under *NHK* due to an earlier trial date, the Board’s decisions have balanced the following factors”) (citing *NHK*, Paper 8 (footnote omitted)). As noted above in the discussion of a stay, *Fintiv* has expressed concern regarding “inefficiency and duplication of efforts.” *Id.* at 6. In its analysis of the proximity factor, *Fintiv* echoes that concern in its guidance that “[i]f the court’s trial date is at or around the same time as the projected statutory deadline or even significantly after the projected statutory deadline, the decision whether to institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding.” *Id.* at 9. Similarly, in *NHK*, the Board expressed the concern that a trial before the

deadline for a final written decision addressing the same prior art and arguments would have undermined the Board’s objectives of providing an effective and efficient alternative to district court litigation. *NHK*, Paper 8 at 20 (citing *Gen. Plastic*, Paper 19 at 16–17).

The statutory deadline for the issuance of the final written decision in this proceeding will be one year from the date of institution. 35 U.S.C. § 316(a)(11). With regard to the District Court litigation, in the Joint Case Management Statement, the parties jointly proposed that trial take place in October 2022. Ex. 1043, 6. And, “the district court trial remains unscheduled.” Reply 6. Accordingly, it is likely that this proceeding will be concluded prior to trial in the District Court.

In the ITC investigation, the evidentiary hearing has been concluded, and the target date for completion of the ITC investigation is February 22, 2022. Ex. 2001, 4. Accordingly, it is likely that this proceeding will be concluded prior to trial in the District Court, but after the ITC investigation is completed. Because the ITC is scheduled to complete its investigation approximately seven-and-a-half months before the due date for the final written decision, this factor weighs in favor of exercising our discretion to deny institution.

3. *Investment in the parallel proceeding by the court and the parties*

If, at the time of the institution decision, the district court has issued substantive orders related to the challenged patent, such as a claim construction order, this fact weighs in favor of denial. *See Fintiv*, Paper 11 at 9–10. On the other hand, if the district court has not issued such orders, this fact weighs against discretionary denial. *Id.* at 10.

Patent Owner contends it amended the complaint in the District Court litigation on June 3, 2020, to add a claim for infringement of the '333 Patent. Prelim. Resp. 5. Patent Owner further contends claim construction briefing in the District Court litigation is complete and the *Markman* hearing is scheduled for September 27, 2021. *Id.* at 5–6. The parties have not indicated whether the *Markman* hearing has been held. Accordingly, no substantive order on claim construction has been issued yet. Reply 1. We conclude on this record presented here that the investment in the District Court litigation has not been substantial at this point.

In the ITC investigation, however, all of the claim construction-related filings and hearings have been completed, and the ITC issued a claim construction order on April 15, 2021. Ex. 1058; Ex. 1059. Fact and expert discovery also have been completed, and the evidentiary hearing has been held. Ex. 2001, 4. The final initial determination is due October 22, 2021, and the target date for completion of the ITC investigation is February 22, 2022. *Id.*

Petitioner argues that “[t]he fact that Patent Owner has forced Petitioner[] to expend significant resources in the ITC defending against patents of dubious validity should not block Petitioner[] from pursuing the more robust relief offered by *inter partes* review.” Pet. 10; Reply 6–7. If Patent Owner’s actions have been abusive, Petitioner may pursue sanctions or other relief at the ITC or in the District Court.

Petitioner also argues that in the “ITC investigation the vast majority of the investment has gone toward issues outside the scope of this Petition.” Pet. 10. We address this matter under the next *Fintiv* factor.

Petitioner further argues that the ITC investigation may result in no ruling on invalidity. Pet. 10–11; Reply 7–8. As Patent Owner notes, however, Petitioner is not precluded from pursuing invalidity in the District Court litigation. Prelim. Resp. 13.

On this record, we conclude that the ITC’s and parties’ investments in the ITC proceeding have been substantial, and include a substantive order by the ITC on claim construction. Accordingly, we weigh this factor in favor of discretionary denial of institution based on the ITC investigation.

4. *Overlap between issues raised in the petition and in the parallel proceeding*

“[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv*, Paper 11 at 12. “Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution under *NHK*.” *Id.* at 12–13.

In the ITC investigation, Patent Owner contends that Petitioner asserted Jinno-205, Jinno-604, and Suutarinen against claims 1, 8, 9, and 12–20 of the ’333 Patent, and that these references were discussed in the parties’ expert reports and depositions, and will be addressed in the evidentiary hearing and initial determination. Prelim. Resp. 14–15 (citing Ex. 2002; Ex. 2004, 17; Ex. 2005, 7). Patent Owner further contends that it is not asserting claims 2, 6, and 10, so the validity determinations before the ITC will resolve all validity issues concerning the claims asserted by Patent Owner in any forum. *Id.* at 15–16.

Petitioner argues that “many issues in the ITC investigation have no role in an *inter partes* review.” Pet. 11; Reply Br. 8. Petitioner does not

deny, however, that it challenges the validity of the same claims using the same prior art references in the ITC investigation as here. Patent Owner points out that it has responded to “hundreds of pages” of invalidity contentions, including detailed claim charts asserting the same prior art references as here. Prelim. Resp. 12 (citing Ex. 2002, Appendix A, Appendix B at Exhibits I, K, L, M, N and Appendix C). In addition, Patent Owner contends that “[t]he parties have also answered hundreds of requests for admission, interrogatories, and produced more than 30,000 documents, many of which related to invalidity issues.” *Id.* Furthermore, Patent Owner states that “the parties have served opening and rebuttal expert reports and conducted expert depositions addressing validity and dealing with the same references raised in the Petition.” *Id.* Reviewing Exhibit 2002, it is apparent that a significant amount of the invalidity contentions addressed the ’333 Patent.

Petitioner also argues “precedent casts doubt on the preclusive effect of ITC invalidity decisions.” Pet. 11 (citing *Texas Instruments v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1569 (Fed. Cir. 1996)); Reply 8–9. As noted in *Fintiv*, however, “as a practical matter, it is difficult to maintain a district court proceeding on patent claims determined to be invalid at the ITC.” *Fintiv*, Paper 11 at 9.

Petitioner further argues that “the ITC’s clear and convincing evidentiary standard for invalidity differs from the PTAB’s.” Pet. 11. Nonetheless, Petitioner is not precluded from arguing invalidity before the ITC.

Petitioner argues that “the instant Petition presents grounds of unpatentability for claims that are not at issue in the proposed ITC

investigation (specifically, claims 2, 6, and 10).” Pet. 11–12. As noted, Patent Owner does not assert claims 2, 6, and 10 against Petitioner in any forum. Prelim. Resp. 16. As regards the asserted claims, the ITC investigation and this proceeding overlap entirely.

Petitioner stipulates that it will not pursue in the ITC investigation or the District Court litigation any ground raised in the IPR. Reply 8. Petitioner contends there will thus be no overlap of invalidity issues between the IPR and the ITC investigation or District Court litigation. *Id.* (citing *Sotera Wireless v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18 (PTAB Dec. 1, 2020); *VMware, Inc. v. Intellectual Ventures I LLC*, No. IPR2020-00470, Paper 13 at 19–20 (PTAB Aug. 18, 2020); *Sand Revolution II LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393 (informative), Paper 24 at 11–12 (PTAB June 16, 2020)). Petitioner’s stipulation, however, covers only grounds raised and does not include challenges that could have been reasonably raised, as in *Sotera*. Also, Petitioner does not stipulate it will not pursue invalidity on the same references in the parallel proceeding, as in *VMware*. Instead, Petitioner’s stipulation is more like that in *Sand Revolution* where the petitioner stipulated not to pursue the same grounds in parallel district court litigation. The petitioner’s stipulation in *Sand Revolution* was found only to “mitigate[] to some degree the concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions.” *Sand Revolution*, Paper 24, at 12.

Sand Revolution appears to be the closest case to the facts presented here, so we similarly find that Petitioner’s stipulation weighs marginally in favor of not exercising discretion to deny institution.

5. *Whether the petitioner and the defendant in the parallel proceeding are the same party*

The parties in the District Court litigation and the ITC investigation and this proceeding are the same. Pet. 12; Prelim. Resp. 17–18. For this reason, and because the ITC’s investigation will likely conclude before issuance of a final written decision in the present proceeding, we determine this factor weighs in favor of exercising our discretion to deny institution. *Fintiv*, Paper 11 at 13–14.

6. *Other circumstances that impact the Board's exercise of discretion, including the merits.*

As to the sixth factor, Petitioner contends that this factor favors institution because “[t]his Petition presents a focused and detailed showing of how and why the 333 Patent claims are obvious.” Pet. 12; *see Fintiv*, Paper 11 at 14–15 (noting that the merits of a petitioner’s ground may be considered). And, “Patent Owner does not even deny that the Petition is strong on the merits.” Reply 9.

We are cognizant that Patent Owner was not compelled to challenge the Petition on the merits in its Preliminary Response and we do not have the benefit of Patent Owner’s views on the merits. However, we agree with Petitioner that the Petition appears to present a reasonable likelihood that Petitioner would prevail. Considering the evidence, we determine that this factor is neutral.

B. Holistic Assessment of Factors and Conclusion

We consider the above factors and take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Fintiv*, Paper 11 at 6. The fact that there is not a likelihood of a stay in the ITC investigation, the ITC investigation is

scheduled to be completed substantially before our final written decision, and the high level of investment in the ITC investigation outweigh the facts that support declining to exercise discretion. After considering the factors outlined in the precedential order in *Fintiv*, we exercise our discretion to deny institution under § 314(a).

III. CONCLUSION

We exercise discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied* as to all challenged claims, and no trial is instituted.

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