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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NIKON CORPORATION, PANASONIC ENTERTAINMENT & COMMUNICATIONS CO., LTD., OLYMPUS CORPORATION, OM DIGITAL SOLUTIONS CORPORATION, FUJIFILM CORPORATION, FUJIFILM NORTH AMERICA CORPORATION, FUJIFILM CORPORATION
Petitioner,

v.

OPTIMUM IMAGING TECHNOLOGIES, LLC,
Patent Owner.

IPR2024-01373
Patent 7,612,805 B2

Before MIRIAM L. QUINN, GARTH D. BAER, and RUSSELL E. CASS, *Administrative Patent Judges*.

Opinion of the Board filed by CASS, *Administrative Patent Judge*.

Dissenting Opinion filed by QUINN, *Administrative Patent Judge.*

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

I. INTRODUCTION

A. Background and Summary

Nikon Corporation, Panasonic Entertainment & Communication Co., Ltd., Olympus Corporation, OM Digital Solutions Corporation, Fujifilm Corporation, and Fujifilm North America Corporation, (collectively, "Petitioner") filed a Petition requesting *inter partes* review of claims 1–9 and 18–24 ("the challenged claims") of U.S. Patent No. 7,612,805 B2 (Ex. 1001, "the '805 patent"). Paper 2 ("Pet."), 4. Optimum Imaging Technologies, LLC ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp."). We have jurisdiction and authority under 35 U.S.C. §§ 6, 314 and 37 C.F.R. § 42.4.

Upon consideration of the Petition and Preliminary Response, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing the unpatentability of at least one challenged claim of the '805 patent. Accordingly, we institute *inter partes* review of all challenged claims on all grounds raised.

B. Real Parties-in-Interest

The Petitioner entities, collectively, certify that "they are the only real parties-in-interest." Pet. 88. Patent Owner identifies itself as the real party-in-interest. Paper 4, 1.

C. Related Matters

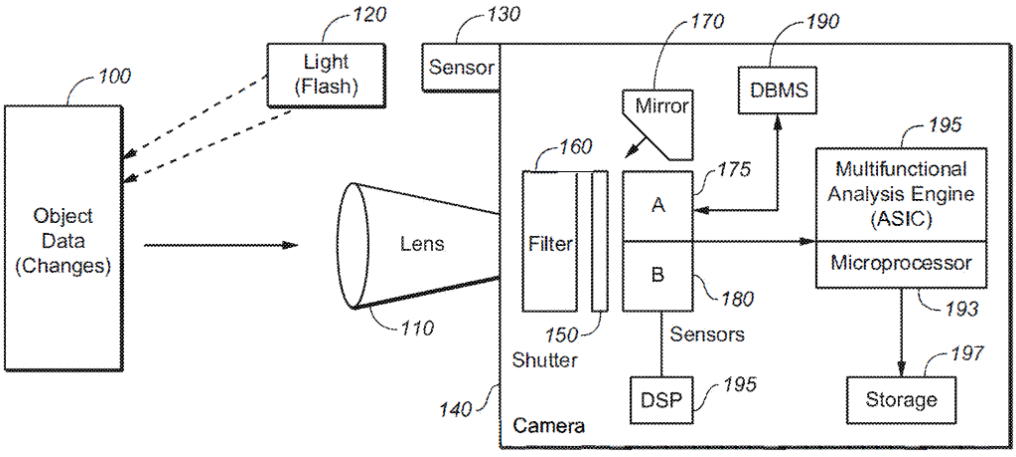
Petitioner and Patent Owner identify numerous related patents, patent applications, *inter partes* reviews, and district court proceedings that can affect or be affected by this proceeding. *See* Pet. 81–82; Paper 7, 1–3. Among these are a number of cases pending in the Eastern District of Texas involving the '805 patent, including *Optimum Imaging Technologies LLC v. Fujifilm Corporation*, Case No. 4-23-cv-00922 (the "Fujifilm case");

Optimum Imaging Technologies LLC v. Nikon Corporation, Case No. 4-23-cv-00923 (the "Nikon case"); *Optimum Imaging Technologies LLC v. Olympus Corporation, et al.*, Case No. 4-23-cv-00924 (the "Olympus case"); *Optimum Imaging Technologies LLC v. Panasonic Corporation*, Case No. 4-23-cv-00926 (the "Panasonic case"); *Optimum Imaging Technologies LLC v. Sony Corporation*, Case No. 4-23-cv-00928 (the "Sony case"); and *Optimum Imaging Technologies LLC v. Samsung Electronics Co., Ltd.*, Case No. 4:23-cv-00927 (the "Samsung case"). *See* Pet. 81–82; Paper 7, 1–2.

D. The '805 Patent

The '805 patent is directed toward an apparatus for "optical image collection, electronic organization and optimization of digital data using integrated circuits and software" with applications in "still and video photography" as well as in "copying and scanning technologies." Ex. 1001, 1:24–30. The apparatus provides "electronic methods to optimize optical processing, the digital capture of light and post-capture image organization." *Id.* at 1:16–18.

Figure 1 of the patent is reproduced below.



The figure "illustrates the overall structure of the system." *Id.* at 29:52. Digital camera 140 includes, *inter alia*, lens 110, sensors 175/180, DBMS

190,[1] digital signal processor (DSP) 195, microprocessor 193, ASIC (application specific integrated circuit) 195, and storage 197. *Id.* at 29:59–30:3, Fig. 1. Light from object 100 is focused by lens 110 onto at least one of the sensors 175/180. *Id.* at 29:58–60. The sensors are connected to ASIC 195 and/or microprocessor 193, which "process the [recorded] image and control the camera." *Id.* at 29:66–30:1. "The digital image data is passed from the digital sensor to either the ASIC or microprocessor and then stored in memory." *Id.* at 30:1–3.

The patent explains that every optical "lens with a unique optical formula will have specific aberrations, the corrections for which will be accessible in a database." *Id.* at 11:13–15. Thus, when taking a picture, the camera "identifies a specific lens and refers to a database that matches the lens type with [its] specific aberrations." *Id.* at 10:49–51. "After a specific lens type is identified (500) and a database is referenced (510), the lens type is matched with the specific optical aberrations (520)" and the DSP acts as a "digital filter [that] applies a correction to specific optical aberrations (530)." *Id.* at 30:44–47, Fig. 5. The digital filter "employ[s] the DSP hardware as well as specific software." *Id.* at 31:1–3. It can make an image sharper, for example, by obtaining its frequency spectrum via Fast Fourier Transform (FFT), "differentiating the frequency spectrum," and emphasizing the sharper, higher frequency components "by limiting the low frequency, as in a high pass filter." *Id.* at 31:11–19.

This sequence of lens aberration correction steps is shown in Figure 7, which is reproduced below.

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[1] Although Figure 1 identifies element 190 as a DBMS or database management system, the patent identifies element 190 as a database. *See* Ex. 1001, 29:65.

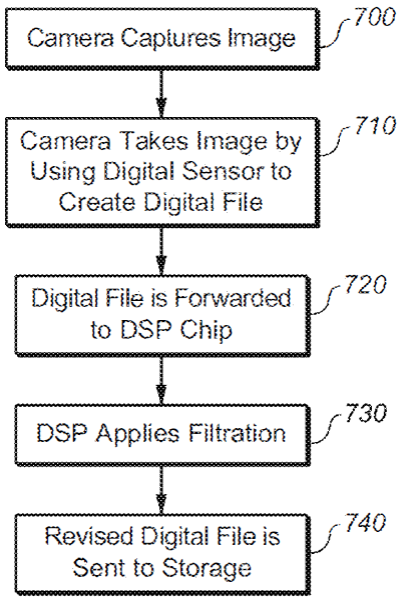

Figure 7 "is a flow chart of the process of digital image capture, processing, and storage." *Id.* at 8:50–51. The camera "uses a digital sensor to create a digital file (710), the digital file is forwarded to the digital signal processor . . . (720)," which "applies the filtration (730) to correct the optical aberrations from the lenses," and "[t]he revised digital file is then sent to storage (740)." *Id.* at 30:62–67.

E. Illustrative Claim

Claims 1, 4, 9, 18, 21, and 24 are independent, and claims 2, 3, 5–8, 19, 20, and 23 depend directly or indirectly from them. Ex. 1001, 36:49–41:33. Claim 9, which is illustrative of the challenged claims, is reproduced below.

9. A digital imaging system for image filtration comprising:

a digital camera mechanism, an optical lens mechanism, a digital sensor, a microprocessor, a digital signal processor, an application specific integrated circuit, system software, a database management system and a memory storage sub-system;

wherein the aberrations from the optical lens mechanism are corrected by applying digital filtration by using the application specific integrated circuit and the digital signal processor;

wherein the microprocessor is used to provide digital and optical data to the digital signal processor;

wherein the system software is organized to identify specific optical aberrations and to access the database to identify specific corrections to the aberrations;

wherein the system software forwards the data from the digital sensor to the digital processor;

wherein the digital signal processor selects a specific procedure to optimize the image and corrects the aberrations;

wherein the lens type is a zoom lens;

wherein the lens focal length alternates from specific fixed focal length lens settings in a succession of steps;

wherein optical aberrations are corrected with digital filtration to modify multiple images from different focal lengths in a succession of data files; and

wherein the modified data file consisting of the digital data optimized from the aberrations that are corrected from the original optical image is stored in memory.

Id. at 38:1–31.

F. Evidence

Reference		Effective Date	Exhibit
Niikawa	US 2002/0135688 A1	Sept. 26, 2002	1005
Enomoto	US 6,323,934 B1	Nov. 27, 2001	1006
Levien	US 5,524,162	July 22, 1991	1007
Yamasaki	US 2003/0071905 A1	Apr. 17, 2003	1008

Petitioner also relies upon the Declaration of Dr. Robert L. Stevenson. Ex. 1003.

G. Asserted Grounds

Petitioner asserts the challenged claims are unpatentable on the following grounds:

Ground	Claims	35 U.S.C. §	References
1(a)	9, 24	103	Niikawa
1(b)	9, 24	103	Niikawa, Enomoto
2(a)	1–3, 18–20	103	Niikawa, Levien
2(b)	1–3, 18–20	103	Niikawa, Enomoto, Levien
3	4–8, 21–23	103	Niikawa, Enomoto, Yamasaki

II. ANALYSIS

A. Discretionary Denial

We have discretion to deny a petition for *inter partes* review. *See SAS Inst. Inc. v. Iancu*, 584 U.S. 357, 366 (2018) ("[Section] 314(a) invests the Director with discretion on the question whether to institute review." (emphasis omitted)); *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016) ("[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion."). In exercising that discretion, the Board may consider "events in other proceedings related to the same patent," including related district court proceedings and *inter partes* review proceedings. Consolidated Trial Practice Guide November 2019[2] at 58.

[2] Available at https://www.uspto.gov/TrialPracticeGuideConsolidated.

1. Discretionary Denial Due to 314(a)/Fintiv

Patent Owner argues we should exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review in view of the parallel district court proceedings involving the Petitioner entities. Prelim. Resp. 1–2; PO Supp. Br. Petitioner disagrees. Pet. 80; *see generally* Pet. Supp. Br. We address the parties' arguments regarding discretionary denial below.

Under Section 314(a), the Director has discretion to deny institution. *See* 35 U.S.C. § 314(a) (stating "[t]he Director *may not* authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition . . . 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") (emphasis added); *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.").

In determining whether to exercise this discretion based on a related litigation, the Board assesses 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*"); *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 19–20 (PTAB Sept. 12, 2018)

(precedential). We consider six factors as part of this balanced assessment when determining whether to use our discretion to deny institution:

> 1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
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> 2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
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> 3. investment in the parallel proceeding by the court and the parties;
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> 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, Paper 11 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." *Id.* 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, which the Acting Director rescinded on February 28, 2025 ("Rescinded Interim *Fintiv* Guidance").[3] Subsequently, on March 24, 2025, the Chief Judge of the Board issued Guidance on USPTO's recission of "Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation" (the "March 2025 *Fintiv*

[3] The Rescinded 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.

Guidance").[4] Consequently, in this Decision, we apply *Fintiv* and the March 2025 *Fintiv* Guidance, and do not apply the Rescinded Interim *Fintiv* Guidance.

Additionally, on March 26, 2025, the Acting Director issued a Memorandum setting forth new Interim Processes for PTAB Workload Management for evaluating discretionary denial of institution (the "Interim Processes for PTAB Workload Management").[5] The Memorandum states that the new processes "will be implemented in IPR and PGR proceedings where the deadline for the patent owner to file a preliminary response has not yet passed." Interim Processes for PTAB Workload Management at 3. In the present IPR, the Preliminary Response was filed on January 28, 2025, which is earlier than the date for the Interim Processes memo. Therefore, the new processes in the memo do not apply to this Decision.

We now apply the six *Fintiv* factors to the facts and circumstances present here.

a) Fintiv Factor 1: Stay in the Parallel Proceeding

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*, Paper 11 at 6. Here, a motion to stay was filed in the Olympus case, but that case settled before the district court issued a ruling on the motion to

[4] The March 2025 *Fintiv* Guidance is available at https://www.uspto.gov/sites/default/files/guidance_memo_on_interim_procedure_recission_20250324.pdf.

[5] The Memorandum setting forth Interim Processes for PTAB Workload Management is available at https://www.uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf.

stay. PO Supp Br. 3; Ex. 2011. No other petitioner in this IPR has filed a motion to stay. PO Supp. Br. 3.

Patent Owner argues that, "[a]ccording to DocketNavigator, Judge Mazzant has only ever granted one opposed motion to stay, post-institution" and, therefore, "factor 1 favors denial." PO Supp. Br. 3–4. Petitioner responds that "DocketNavigator indicates that Judge Mazzant granted the only post-institution stay motion he ruled on," which "counsels against a discretionary denial." *Id.* at 4–5.

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

b) Fintiv Factor 2: Trial Date in the Parallel Proceeding

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*, Paper 11 at 6. In the parallel district court litigations, the court issued a combined Scheduling Order placing the Fujifilm case, the Nikon case, the Olympus case, the Sony case, and the Samsung case on the same schedule for pre-trial purposes, and setting various due dates culminating with a final pretrial conference date of October 29, 2025. Ex. 2004. Jury selection and trial were listed as "TBD." *Id.* at 6. The district court issued a First Modified Scheduling Order and a Second Modified Scheduling Order adjusting various dates and setting a final pretrial conference date of November 6, 2025, but continuing to list

jury selection and trial as "TBD." Ex. 2008, 2009. The district court issued a separate Scheduling Order for the Panasonic case listing April 27, 2026, for the final pretrial conference and "TBD" for jury selection and trial. Ex. 1035, 4–5. All of the parties in the parallel district court cases have filed Notices of Settlement in the district court stating that they have reached a settlement-in-principle and request an immediate forty-five day stay of all deadlines. Pet. Supp. Br. 6 n.5; PO Supp. Br. 1 n.2, 3; Exs. 2011, 2012, 2016–2018.

Patent Owner argues that factor 2 supports discretionary denial because the final pretrial conference "will occur almost 6 months before a FWD would be expected in this IPR on 4/28/2026." PO Supp. Br. 4 (emphasis omitted). Patent Owner asserts that, "[a]ccording to DocketNavigator, Judge Mazzant's final pretrial conference typically occurs 1–3 weeks before Trial Day 1." *Id.* at 4 n.7. In support, Patent Owner lists civil action numbers for five cases before Judge Mazzant, but does not introduce any documents or evidence into the record relating to those cases. *Id.* According to Patent Owner, "[m]ultiple trials will likely already be completed by the time of a FWD in April 2026." *Id.* at 5.

In response, Petitioner points to the transcript of a telephone conference in the district court litigation where Judge Mazzant explained, in response to Patent Owner's counsel's request to move the pretrial conference date, that this date was "just a placeholder" and that the pretrial conference would be set at a later date if the case is going to trial. Pet. Supp. Br. 8 (quoting Ex. 1034, 12:21–13:7, 13:8–11, 14:1–3). According to Petitioner, "Judge Mazzant further noted that his 'trial schedule . . . backs up,' making it clear that the actual pretrial conference date would be pushed beyond November 6 to accommodate Patent Owner's conflict with Judge

Mazzant's docket." *Id.* (quoting Ex. 1034, 13:15–17). "Thus," Petitioner contends, "a trial date for Nikon is uncertain and will not take place according to the timing implied by the Patent Owner." *Id.* at 7. Petitioner further argues that the district court scheduling order for the Panasonic case "indicates a pre-trial conference on April 27, 2026," which is around the deadline for a final written decision in this IPR. *Id.* at 6.

Fintiv provides that "[i]f the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution," while "[i]f the court's trial date is at or around the same time as the projected statutory deadline" the "decision whether to institute will likely implicate other factors." *Fintiv* at 9. Here, as noted above, the parties have informed us and the district court that they have reached a settlement-in-principle in all of the parallel district court cases. Therefore, unless this settlement-in-principle falls through, the parallel district court cases will be dismissed, and no trials will occur in those cases. Because it is reasonably likely that the district court cases will be dismissed and no trials will occur, factor 2 weighs against discretionary denial under *Fintiv*.

The Dissent states that it considers the parties' representation to the District Court that they have reached a settlement in principle of all of the parallel district court cases as an indication that the parties desire to conserve Board and District Court resources, and that the Board should consider this a circumstance warranting discretionary denial. Dissent § F. We disagree. The parties have not indicated that they plan to file a request for termination of this IPR, and they may wish to continue with this IPR in spite of the settlement of the parallel district court cases. We see nothing in *Fintiv* or the March 2025 *Fintiv* Guidance that suggests that the parties' settlement of

related district court litigation is a factor that weighs in favor of discretionary and the Dissent does not cite any authority supporting such a proposition. Indeed, because a settlement of the district court litigation would remove the potential for duplication of efforts and an earlier trial date in district court, it undermines the entire premise of a *Fintiv* denial, rather than favoring it as the Dissent suggests.

Moreover, even putting aside the recent Notices of Settlement, we find that the remaining facts do not support discretionary denial. The district court has not set a trial date for any of the multiple cases involving the '805 patent. Ex. 2009. Moreover, it is not clear from the record whether the cases involving Petitioner entities (the Nikon and Panasonic cases) would be tried at the same time as the Sony and Samsung cases. Under 35 U.S.C. § 299(b), "accused infringers may not be joined in one action as defendants . . . or have their actions consolidated for trial, based solely on allegations that they each have infringed the patent or patents in suit." Patent Owner does not allege that the cases against Sony and Samsung involve the same or similar products as the cases against the Petitioner entities or share other common facts other than being accused of infringing the same patents, and therefore there is nothing in the record to suggest that the cases will be tried together. *See* PO Supp. Br. 2–3. Therefore, even if Patent Owner were correct that the district court typically sets a trial date 1–3 weeks after the final pretrial conference, there is no indication which case will be tried first or when any of the trials in the other cases will take place.[6]

[6] The Dissent faults the Majority for not discussing Patent Owner's "evidence of typical practice of the District Court setting a trial at most several weeks after the pretrial conference." Dissent § B. The Dissent

Moreover, the conference call held with the district court confirms that the pretrial conference date in the scheduling order is "just a placeholder," and no firm pretrial conference date, much less a trial date, has been set. The relevant portion of the transcript of the conference is reproduced below:

> MR. HARKINS: Your Honor, this is Bob Harkins again. Actually, if I could -- before we leave the schedule, there was one, I think, nonopposed issue about the schedule, which is the pretrial conference date that we currently have from your Honor is October 29th. We have a copyright trial in San Francisco that I'm lead counsel of that starts on October 27th, and it will be about two weeks. So we were hoping that we could find a date that's amenable to your Honor that would be, you know, basically at least three weeks out from the current October date for the pretrial conference.
>
> THE COURT: So here's what I would say on that, is that ***typically for patent cases I ultimately eventually specially set it when we know it's going to go to trial, so the pretrial conference is just a placeholder really***.
>
> So what I would suggest is ***as we get closer to that date and we have cases still going and proceeding to trial, I would ask the attorneys to reach out to my judicial assistant to find a firm trial date***. And we can do it before that, long before that, but it's just because ***my trial schedule is -- it backs up***.
>
> MR. HARKINS: Understood, your Honor.
>
> THE COURT: ***That is just a placeholder***, so do not worry about that. We can -- ***because eventually, if any of the cases***

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appears to be referring to Patent Owner's allegation that, "[a]ccording to DocketNavigator, Judge Mazzant's final pretrial conference typically occurs 1–3 weeks before Trial Day 1." PO Supp. Br. at 4 n.7. This portion of Patent Owner's brief, however, only cites several case numbers in support without any explanation of the circumstances of those cases and without submitting any materials from those cases into the record. *Id.* The record, therefore, lacks an evidentiary basis to conclude that Judge Mazzant has a "typical practice" of setting a trial date 1–3 weeks before the first trial day.

> ***are going to go to trial, we will specially set those***. But I do ask the parties to initiate that. ***If the case looks like it's going to go to trial, then let's get everyone on the same page and find dates for the trial, or trials, if there's more than one***.
>
> So I'll probably leave the date in there that we proposed, but I think ***I've made it clear it's just a placeholder***.
>
> MR. HARKINS: Thank you, your Honor.
>
> THE COURT: I always specially set all my patent trials so -- and there are certain other categories, too, that I specially set. In all my other docket, we have the pretrial conference and we set the trial date at that pretrial conference. Usually it's sometime during a window.

Ex. 1034, 12:21–14:10 (emphasis added). Even aside from the recent settlement notices, this exchange would cast significant doubt on Patent Owner's assertion that a trial date in the Nikon or Panasonic cases will likely take place within 1–3 dates of the currently scheduled "placeholder" pretrial conference date.

There have also been delays in the Nikon case that could impact the pretrial conference and trial dates. Although a claim construction hearing was set for March 27, 2025, the district court did not hold the hearing on that date, and no new date appears to have been set. Ex. 1037. Additionally, on April 1, 2025, Petitioner Nikon and Patent Owner filed a joint motion to stay all dates in the Nikon case for two weeks based on an anticipated settlement-in-principle, and the parties later requested a forty-five day stay of all deadlines to finalize the settlement agreement. Exs. 2014, 2016. If the Nikon case settles, the Panasonic case will be the only remaining district court case involving the Petitioner entities. The Panasonic case has a pretrial conference date of April 27, 2026, and no trial date (Ex. 1035, 4), so the trial in that case will almost certainly take place after the Final Written Decision is issued in this case.

Even putting aside the recent settlement orders in the parallel district court cases, we think the best approach would be not to speculate about when a trial would occur in the Nikon case. Because there is no actual trial date scheduled in either the Nikon or Panasonic cases, and based on the uncertainty in the trial date for the Nikon case and the fact that trial in the Panasonic case would occur sometime after the April 27, 2026, pretrial conference date (which is at about the same time as the due date for our final written decision in this IPR), we find that, even if we were to disregard the recent settlement notices in the parallel district court litigation, factor 2 does not weigh in favor of discretionary denial. When we add the recent settlement notices into our consideration, we find that factor 2 weighs against discretionary denial. *See Sand Revolution II v. Continental Intermodal Group-Trucking*, IPR2019-01393, Paper 24, 12-13 (PTAB June 16, 2020) (informative) (weighing factor 2 against discretionary denial because of "uncertainty that continues to surround the scheduled trial date").

c) Fintiv Factor 3: Investment by the Court and the Parties in the Parallel Proceeding

Under the third *Fintiv* factor, we consider the "investment in the parallel proceeding by the court and the parties." *Fintiv*, Paper 11 at 6.

According to the district court's February 14, 2025, Scheduling Order in the Nikon case, infringement contentions were served on September 27, 2024, invalidity contentions were served on December 4, 2024, and claim construction briefing concluded on March 17, 2025. Ex. 2009, 2–3. A claim construction hearing was scheduled for March 27, 2025, but, as discussed above, the district court issued a minute order stating that the "Markman Hearing [was] called but not held on 3/27/2025," and does not appear to have set a new hearing date. Ex. 2009, 3; Ex. 1037. As

also discussed above, Petitioner Nikon and Patent Owner filed a joint motion on April 1, 2025, to stay all dates in the Nikon case for two weeks based on an anticipated settlement-in-principle, and later requested a forty-five day stay of all deadlines to finalize the settlement agreement. Exs. 2014, 2016. Under the previous scheduling order, expert discovery was set to begin on May 16, 2025, and end on June 27, 2025 (Ex. 2009, 3–4), but those dates will likely be delayed due to the parties' stay requests. Ex. 2009, 3–4. Patent Owner also states that depositions of foreign witnesses in Japan will occur "through 4/9/2025" (PO Supp. Br. 5), but it is unclear if those depositions took place or have been delayed due to the parties' stay requests. Petitioner states that, as of the April 2, 2025, date of its Supplemental Brief, "[n]o depositions have been taken by either side" in the Nikon case. Pet. Supp. Br. 8.

According to the Scheduling Order in the Panasonic case, infringement contentions were served on March 27, 2025, and invalidity contentions are due to be served on April 21, 2025. Ex. 1035. The remaining dates are set to occur after our institution decision in this case. *Id.*

The parties disagree as to whether this IPR was diligently filed. Petitioner argues that the Petition was diligently filed approximately three months after Nikon was served on May 22, 2024, and before Panasonic was served in October 2024. Ex. 1036; Paper 13, 6–7. Patent Owner argues that Petitioner did not act promptly in filing the Petition because "the complaints were filed on 10/18/2023," Fujifilm was "aware of the complaint in the Fujifilm Litigation at least by January 2024," and "PO believes that all petitioners were aware of the filed complaints long before Hague service was complete." PO Supp. Br. 6–7. Petitioner responds that, under 35 U.S.C. § 315(b), service of the complaint is the appropriate metric, rather

than filing of the complaint or "awareness of the complaint" by the petitioner. *Id.* at 8–9.

Additionally, as noted above, the parties have informed us and the district court that they have reached a settlement in principle in all of the parallel district court cases. Pet. Supp. Br. 6 n.5; PO Supp. Br. 1 n.2, 3; Exs. 2011, 2012, 2016–2018.

Based on the above facts and circumstances, we find that factor 3 weighs against discretionary denial. *Fintiv* states that "if, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition," such as a claim construction order, "this fact favors denial." *Fintiv* at 9–10. On the other hand, *Fintiv* explains, "[i]f at the time of the institution decision, the district court has not issued orders related to the patent at issue in the petition, this fact weighs against exercising discretion to deny institution." *Id.* at 10. Here, the district court has not issued any substantive orders related to the '805 patent. The claim construction hearing set for March 27, 2025, in the Nikon case has been postponed, and it does not appear that a new date for the hearing was set. Moreover, the parties have filed settlement notices in the district court staying all deadlines for forty-five days. Therefore, it is highly unlikely that any claim construction decision will issue before the decision on institution in this case. Indeed, in light of the parties' settlement notices, no claim construction hearing may ever take place in the parallel district court cases. *See* Ex. 2014, 1.

In *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (PTAB Dec. 1, 2020) (precedential), the Board found that factor 3 "weighs in favor of not exercising discretion to deny institution" where the date for the claim construction hearing had been vacated, "fact discovery is

ongoing, expert reports are not yet due, and substantive motion practice is yet to come." *Sotera* at 16. Even before the settlement notices and requests for stay of all deadlines, the Nikon case was in a similar posture. Fact discovery was ongoing, it appears that depositions had not yet occurred (or appear, at most, to be in an early stage), and the deadline for the close of fact discovery (when adjusted in light of the parties' joint motion to stay) would be after our institution decision. Expert reports were not yet due, and substantive motion practice was yet to come. And, the Panasonic case was at an even earlier stage. Therefore, based on *Fintiv* and *Sotera*, we find that the progress of this case weighs against discretionary denial, and the parties' settlement notices and request for a forty-five day stay of all deadlines further reinforce our conclusion.

Turning to the Petitioner's diligence in filing the Petition, *Fintiv* explains that "it is often reasonable for a petitioner to wait to file its petition until it learns which claims are being asserted against it in the parallel proceeding," and that if the petition was filed "promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution." *Fintiv* at 11. "On the other hand," *Fintiv* states, if the petition was filed "at or around the same time that the patent owner responds to the petitioner's invalidity contentions," this fact "ha[s] favored denial." *Id.* at 11–12. Here, the Petition was filed on August 30, 2024, which was approximately ***one month before*** Patent Owner served in the Nikon case its Disclosure of Asserted Claims and Infringement Contentions identifying the claims being asserted (on September 27, 2024), ***over three months before*** Patent Owner served its invalidity contentions in the Nikon case on December 4, 2024, and approximately ***seven months***

before infringement contentions were due in the Panasonic case.[7] Exs. 2009, 1035. We find that this timing supports that Petitioner was diligent in filing its Petition.

Based on the above facts and circumstances, we find that factor 3 weighs against discretionary denial of the Petition.

d) Fintiv Factor 4: Overlap Between Issues Raised in the Petition and Parallel Proceeding

Under the fourth *Fintiv* factor, we consider the "overlap between issues raised in the petition and in the parallel proceeding." *Fintiv*, Paper 11 at 6. Petitioner has filed a stipulation pursuant to *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (PTAB Dec. 1, 2020) (precedential), stating that:

> Petitioners . . . hereby stipulate that if the Patent Trial and Appeal Board (PTAB) institutes an IPR based on the grounds [presented in this IPR], then each party respectively will (i) not pursue the grounds [presented in this IPR] in the respective District Court Case, and (ii) not pursue any other ground that reasonably could have been raised during the IPR in the respective District Court Case.

Ex. 1028.

The claims asserted in this IPR and in district court are overlapping but not identical. In this IPR, Petitioner challenges claims 1–9 and 18-24, while in the district court Patent Owner asserts claims 1–4, 8, 9, 18, 21, and 24. PO Supp. Br. 7–8. Patent Owner argues that "it would not be efficient

[7] We also agree with Petitioner that its filing of the Petition about three months after service of the Nikon complaint was diligent, and that service of the complaint, rather than filing of the complaint or Petitioner's awareness of the complaint, is the appropriate metric. *See* Pet. Supp. Br. 8; 35 U.S.C. § 315(b). Moreover, Patent Owner does not provide evidence that Nikon had reviewed the complaint prior to service in May 2024. PO Supp. Br. 6–7.

to grant institution in this IPR because the district court will resolve validity of enough overlapping claims to resolve key issues in the petition." *Id.* at 8.

Patent Owner also asserts that Petitioner's *Sotera* stipulation "only moderately influences the analysis" here. PO Supp. Br. 8. According to Patent Owner, Petitioner Nikon "asserts 6 systems and 6 patents/publications, including primary reference Niikawa." *Id.* "Therefore," Patent Owner argues, "the invalidity challenges based on Niikawa at issue in this IPR may be evaluated by the district court in the Nikon Litigation." *Id.* at 8. Patent Owner further contends that "Petitioners also include system art" in the district court, and thus "even with the stipulation in effect, Petitioners are pursuing invalidity of the '805 Patent in district court." *Id.* at 8.

In *Sotera*, the Board stated that a stipulation like the one Petitioner submits here "mitigates any concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions," and therefore "ensures that an *inter partes* review is a 'true alternative' to the district court proceeding." *Sotera* at 19. Based on the filing of this stipulation, the Board in *Sotera* found that factor 4 "weigh[ed] strongly in favor of not exercising discretion to deny institution." *Id.* We also note that the Chief Judge's March 2025 *Fintiv* Guidance states that "a timely-filed *Sotera* stipulation . . . is highly relevant," although it "will not be dispositive by itself." March 2025 *Fintiv* Guidance at 2–3. Based on the *Sotera* decision and the March 2025 *Fintiv* Guidance, we find Petitioner's *Sotera* stipulation to be highly relevant here.

We have considered Patent Owner's arguments that the *Sotera* stipulation "only moderately influences the analysis under the circumstances." PO Supp. Br. 8. We disagree with Patent Owner's

assertion that "the invalidity challenges based on Niikawa at issue in this IPR may be evaluated by the district court in the Nikon Litigation," because those challenges would be barred by Petitioner's *Sotera* stipulation. With respect to Patent Owner's argument that Petitioner has asserted system art in its invalidity contentions in district court, we see nothing in the *Sotera* decision that suggests that the impact of a *Sotera* stipulation is weakened or undermined by the assertion of system art in district court, which cannot by statute be used to support a challenge in an IPR. *See* PO Supp. Br. 8–9; 35 U.S.C. § 311(b) (an IPR may be brought "only on the basis of prior art consisting of patents or printed publications").

We note that, in a recent Director Review decision in *Motorola Solutions, Inc. v. Stellar,* LLC, IPR2024-01205, Paper 19 at 3–4 (PTAB Mar. 28, 2025) (Director Review), the Director determined that a *Sotera* stipulation did not "outweigh the substantial investment in the district court proceeding or *Fintiv* factors 1, 2, and 5, which the Board weighed in favor of denial," because Petitioner's invalidity contentions in district court "include combinations of the prior art asserted in the[IPR] proceedings with unpublished system prior art." *Motorola*, Paper 19 at 4. In the present case, Patent Owner does not explain how the system art is used in the district court invalidity contentions or whether it is combined with the art raised in this IPR, and does not submit copies of the invalidity contentions into the record in this proceeding. PO Supp. Br. 8–9; *see* Prelim. Resp. 1–4. However, even considering the presence of system art as a mitigating factor in favor of Patent Owner, we still find that the *Sotera* stipulation significantly reduces the overlap between the district court litigation and this IPR.

Based on the above analysis, we find that factor 4 weighs in favor of not exercising discretion to deny institution.

e) Fintiv Factor 5: Whether Petitioner is the Defendant in the Parallel Proceeding

Under the fifth *Fintiv* factor, we consider "whether the petitioner and the defendant in the parallel proceeding are the same party." *Fintiv*, Paper 11 at 6.

Prior Board decisions have found that factor 5 generally follows factor 2, such that "this factor favors denial if trial precedes the Board's Final Written Decision and favors institution if the opposite is true." *Huawei Tech. Co. v. WSOU Inv.*, LLC, IPR2021-00225, Paper 11 at 14 (PTAB June 14, 2021) (internal quotation marks omitted). *See Google LLC v. Parus Holdings, Inc.*, IPR2020-00846, Paper 9 at 21 (PTAB. Oct. 21, 2020) ("Here, . . . Petitioner is the defendant in the parallel proceeding. This fact could weigh either in favor of, or against, exercising discretion to deny institution, depending on which tribunal was likely to address the challenged patent first."); *Hanwha Solutions Corp. v. REC Solar Pte. Ltd.*, IPR2021-00989, Paper 12 at 14, 17 (PTAB Dec. 13, 2021) (determining that factor 5 did not weigh in favor of exercising discretion to deny institution where district court trial date was set for three months after statutory deadline for a final written decision); *Carrier Fire & Security Americas Corp. v. Sentrilock, LLC*, IPR2021-00665, Paper 12 at 13–14 (PTAB Sept. 16, 2021) (The parties being the same "could weigh either in favor of, or against, exercising discretion to deny institution, depending on which tribunal is likely to address the challenged patent first," and the Board reaching the merits before the district court means "estoppel will apply against Petitioner should we determine that Petitioner failed to demonstrate unpatentability of

the challenged claims.")); *Tesla, Inc. v. Autonomous Devices LLC*, IPR2023-01054, Paper 20 at 14–15 (PTAB Dec. 13, 2023) ("When the Board's deadline for a Final Written Decision precedes the district court trial date and the parties are the same in both proceedings, *Fintiv* factor 5 typically weights against exercising discretion to deny institution").

Because, as discussed above, we find factor 2 weighs against discretionary denial, we find that factor 5 also weighs against discretionary denial. *See* § II.A.2, *supra.*

f) Fintiv Factor 6: Other Considerations, Including the Merits

Under the sixth *Fintiv* factor, we consider "other circumstances that impact the Board's exercise of discretion, including the merits." *Fintiv*, Paper 11 at 6. As discussed below, we determine that Petitioner has shown a reasonable likelihood of unpatentability at least as to Ground 1. *See* §§ II.C, D, *infra*. Although we recognize the record may change during trial, as discussed in detail below, Petitioner has made a sufficiently persuasive showing, on the record presently before us, that the prior art references cited in the Petition teach or suggest all limitations of at least one challenged claim. *See Fintiv* 14–15 (discussing the merits of the Petition as a consideration).

We do not believe that factor 6 weighs in favor of discretionary denial due to weaknesses in the merits. *See* Dissent § F. As discussed further below in Sections II.D.3 and II.D.4(g), we determine, based on the present record, that Petitioner has set forth sufficient evidence and reasoning to support its motivation to combine Niikawa and Enomoto. Specifically, Petitioner introduces the unrebutted testimony of Dr. Stevenson explaining that one of ordinary skill would have been motivated to use Enomoto's correction functions/equations and/or coefficients for correcting aberrations

with Niikawa's processor 150 because identifying and correcting these aberrations would further improve image quality, and one of ordinary skill would have had a reasonable expectation of success in making this modification. Ex. 1003 ¶¶ 134–137, 140–144; *see* II.D.4(g), *infra*. Patent Owner relies only on attorney argument to rebut Petitioner's showing of motivation to combine. *See* Prelim. Resp. 11–16. Based on the present record, we find that Petitioner's showing is sufficiently persuasive such that the merits on this issue do not weigh in favor of discretionary denial.

On the present record, we also do not see an incompatibility between the digital cameras and aberration correction of Niikawa and Enomoto in Petitioner's proposed combination. Petitioner explains that Niikawa identifies inverse correction coefficients according to "lens type," as well as focal length and f-number, indicating that multiple types of lenses are supported, and this assertion appears to be supported by Niikawa's disclosures. Pet. 36; *see* Ex. 1005 ¶¶ 101 (explaining that the memory may include a "camera name" and "lens name" in addition to focal length and f-number), 168 (correction tables may be associated "with the type of digital camera that is assumed to capture images"), 205 (explaining that "correction table selection conditions" may be based on "the type of imaging lens used at the time of exposure"). Thus, even if Enomoto receives images from various cameras and lenses, we do not find this to be incompatible with Niikawa, which can also accommodate different cameras and lenses. Thus, we do not believe the merits weigh against institution on this issue. *See* II.D.3, *infra*.

Finally, as discussed in more detail in Section II.D.4(e) below, Petitioner has provided a sufficient motivation to implement some but not all of the components of Niikawa's digital signal processor 120 in an ASIC and

include a separate shading processor (the claimed "digital signal processor"). Petitioner has presented ample evidence on this point, including the unrebutted testimony of Dr. Stevenson, that one of ordinary skill would have found it obvious to make this modification. We find that this evidence is sufficiently persuasive at this stage of the proceeding such that it does not weigh in favor of exercising discretion to deny institution.

In light of the above, we determine that factor 6 does not weigh for or against denying institution in this case.

g) Conclusion

As noted above, we take "a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Fintiv* at 6. Here, factors 2, 3, 4, and 5 weigh against exercising discretion to deny institution, and factors 1 and 6 are neutral. Weighing all of the factors, we are not persuaded that the interests of efficiency and integrity of the system would be best served by invoking 35 U.S.C. § 314(a) to deny institution of a potentially meritorious petition. Thus, based on the record before us, we determine that the facts of this case do not warrant discretionary denial.

2. Discretionary Denial Due to Related Inter Partes Reviews

Patent Owner also requests discretionary denial in view of three related *inter partes* reviews: (1) *Canon Inc. v. Optimum Imaging Techs. LLC*, IPR2020-01321, Paper 10 (PTAB Mar. 1, 2021) ("the Canon IPR"); (2) *Sony Corp. v. Optimum Imaging Techs. LLC*, IPR2024-00924, Paper 10 at 1 (PTAB Dec. 12, 2024) (granting review of claims 1–3, 9, 18–20, and 24 the '805 patent) ("the Sony IPR"); and (3) *Samsung Elects. Co., Ltd. v. Optimum Imaging Techs. LLC*, IPR2025-00461, Paper 1 (Petition) ("the Samsung IPR"). Prelim. Resp. 1–4.

a) The Canon IPR

Patent Owner argues we should deny institution based on the Canon IPR, presumably under 35 U.S.C. § 325(d), because it challenged the same claims challenged here based, in part, on the same primary reference (Niikawa). Prelim. Resp. 2–3. Patent Owner further argues we should deny institution because the Board in the Canon IPR determined "the merits did not outweigh the other *Fintiv* factors." *Id.* Petitioner argues we should not deny institution because "this Petition raises grounds not raised in the . . . Canon IPR" and "the Canon IPR was denied on discretionary grounds" for which the Board "did not consider Niikawa or the substantive arguments." Pet. 80–81.

The Board has set forth a two-part framework to consider whether to exercise discretion to deny institution under § 325(d):

> (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential).

Of the ten claims challenged here, only two (claims 9 and 24) were challenged on the same ground in the Canon IPR—obviousness over Niikawa. *Canon IPR*, Paper 10 at 3. Thus, Patent Owner's request fails under the first prong of *Advanced Bionics*. Moreover, the Board denied the Canon IPR largely due to the immediacy of an upcoming district court trial. *Id.* at 5–12. Thus, even if Patent Owner's request did not fail under the first prong of *Advanced Bionics*, the request would fail under the second prong,

which considers *Becton, Dickson*[8] factors (c) and (f). *Advanced Bionics*, Paper 6 at 10. Factor (c) "focuses on the record developed by the Office in previously reviewing art or arguments" and informs "the petitioner's showing under factor[] . . . (f)." *Id.* Factor (f) considers the extent to which the facts and evidence in the Petition warrant reconsideration of the prior art. *Becton, Dickenson*, Paper 8 at 24–25.

The *record* of the Office's previous consideration of whether claims 9 and 24 would have been obvious over Niikawa, as well as the Office's consideration of the other grounds in the Canon IPR is limited. In denying the IPR, the Office stated without elaboration that its review of the merits did not "outweigh the other *Fintiv* factors favoring denial of institution." *Canon*, Paper 10 at 11. But the denial contained no discussion of the actual merits of the petition, i.e., whether Canon had shown or not shown that claims 9 or 24 were likely unpatentable over Niikawa or whether the other challenged claims were unpatentable over Niikawa in combination with Kawanishi or Russ. *Id.* at 3, 11. Moreover, for the reasons discussed below, Petitioner demonstrates a reasonable likelihood of showing at least claim 9 is unpatentable over Niikawa or the combination of Niikawa and Enomoto. Therefore, the Petition as a whole presents sufficient evidence to deny Patent Owner's request under prong two of *Advanced Bionics*.

Accordingly, for the reasons discussed above, we decline to deny institution due to the Canon IPR.

[8] *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first para.).

b) The Sony IPR

Patent Owner argues we should deny institution based on the Sony IPR, which challenges the same claims but on different grounds, because "the validity of the '805 Patent will already be evaluated by the Board in IPR2024-00924." Prelim. Resp. 3. Petitioner argues we should not deny institution, in part, because it "had no involvement with the Sony IPR," it "lack[s] any legally significant relationship with Sony," and the Petition "raises grounds not raised in the Sony IPR." Pet. 78, 80.

The Board considers and weighs several factors when deciding whether to institute review in light of a previously filed *inter partes* review challenging the same patent. *See Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 15–16 (PTAB Sept. 6, 2017) (precedential). Principal among them is the first factor—"whether the same petitioner previously filed a petition directed to the same claims of the same patent." *Id.* at 16. This factor has been extended to consider not only whether the petitioner is the same as a previous petitioner, but whether the petitioner has "a significant relationship" with the previous petitioner. *See Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 9–10 (PTAB Apr. 2, 2019) (precedential). The Director has found that when two petitions challenge the same patent and "the first and second petitioners are neither the same party, nor possess a significant relationship under *Valve*, *General Plastic* factor one *necessarily outweighs* the other *General Plastic* factors." *Videndum Prod. v. Rotolight*, IPR2023-01218, Paper 12 at 5–6 (PTAB Apr. 19, 2024) (emphasis added).

Petitioner and Sony are not the same party and the entities that constitute Petitioner contend that they "lack any legally significant relationship" with Sony. Pet. 78. Patent Owner does not dispute this.

Prelim. Resp. 1–4. Given these facts and the guidance in *Videndum*, we decline to discretionarily deny the Petition due to the Sony IPR. *See Videndum*, Paper 12 at 5–6.

c) The Samsung IPR

Patent Owner argues we should deny institution based on the Samsung IPR, which challenges the same claims on the same grounds, because Samsung provided "no justification for the delay in filing [its] petition" and is "not being efficient." Prelim. Resp. 4.

We decline to deny *this* Petition, which was filed before the petition filed in the Samsung IPR, noting that Samsung states in its petition that it "intends to seek joinder with [this] proceeding" should it be instituted. *Samsung*, Paper 1 at 77.

B. Level of Ordinary Skill in the Art

Petitioner identifies a person of ordinary skill in the art ("POSITA") at the time of the invention as someone that would have had "a bachelor's degree in electrical engineering, physics, or a related field, with at least two years of industry experience and/or research, both concerning digital camera system design and image processing." Pet. 7 (citing Ex. 1003 ¶¶ 48–50). Patent Owner disputes this, arguing that a district court construing terms in this patent found that a person of ordinary skill would have had "an electrical engineering degree and three years of relevant experience" and that this definition "should be adopted for purposes of determining whether to institute." Prelim. Resp. 7 (quoting Ex. 1009, 6).

"[T]he level of skill in the art is a prism or lens through which a judge, jury, or the Board views the prior art and the claimed invention." *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The Board may consider such factors as the types of problems encountered in the art, prior art

solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of workers in the field when determining the level of skill in the art. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

As noted above, the '805 patent describes a system for digital optical image collection, processing, and organization, which applies to "any imaging system that includes interactions between optics, digital image sensors, post-capture integrated circuits and digital storage components." Ex. 1001, 1:15–32. Artisans and inventors in such fields are not limited to electrical engineers. They include physicists and others with sufficient knowledge of the physics of optical, electronic, and opto-electronic devices. Indeed, many of the pioneering inventions needed to understand the operation of a digital camera were made by physicists, including the inventions of the transistor,[9] the integrated circuit (IC),[10] the digital computer,[11] and the charge-coupled device (CCD).[12] For at least these reasons, we find Petitioner's assessment of the level of skill in the art to be reasonable and commensurate with the problems and solutions disclosed in the prior art. *In re GPAC Inc.*, 57 F.3d at 1579.

Accordingly, at this stage of the proceeding, we adopt as our own Petitioner's description of a person skilled in the art.

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[9] Julius Edgar Lilienfeld (field-effect transistor) John Bardeen, Walter Brattain, William Shockley (point-contact transistor), William Shockley (bipolar transistor).
[10] Robert Noyce (monolithic integrated circuit)
[11] John Atanasoff and Clifford Berry (electronic digital computer)
[12] George Smith and Willard Boyle (charge-coupled device)

C. Claim Construction

In *inter partes* reviews, we interpret a claim "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.100(b) (2019). Under this standard, a claim is construed "in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.* However, only claim terms which are in controversy need to be construed and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Petitioner states that "[t]he district court in the Canon Case construed the term 'using the application specific integrated circuit and the digital signal processor' in [limitations] [1C], [4C], [9B], [18B], [18G], [21B], [21H], [24B], and [24I], to have its plain and ordinary meaning, finding that 'the claims include only the requirement that each [of the ASIC and DSP] play a role, and the details of how responsibilities are assigned are not part of the claim limitation.'" Pet. 7 (citing Ex. 1009, 38). Petitioner also states that it "believe[]s that the plain and ordinary meanings" of the claim terms "suffice and no further constructions are needed to resolve the issues presented herein." *Id.* (citing Ex. 1003 ¶¶ 51–52). Patent owner agrees that "the plain and ordinary meaning of claim terms/phrases is sufficient for determining whether to institute." Prelim. Resp. 7 (citing Pet. 7).

For purposes of this Decision, we agree with and apply Petitioner's understanding of the phrase "using the application specific integrated circuit and the digital signal processor." As discussed below, we preliminarily construe the term "database" to have its plain and ordinary meaning, which does not exclude fixed or non-updatable databases. For the rest of the claim

terms, we apply the plain and ordinary meaning for purposes of this Decision.

1. Database

As discussed below, Petitioner identifies Niikawa's read-only memory (ROM 153) as a database because it stores lens correction tables that can be retrieved by Niikawa's controller 150. Pet. 28–30. Patent Owner argues, in part, that a person skilled in the art "would have understood that Niikawa's shading ROM 153 is read-only memory that is . . . not updateable" and that the claims require an updateable database because Patent Owner had argued in the Sony IPR that "the recited 'database' in the '805 Patent is updateable which amounts to prosecution history disclaimer." Prelim. Resp. 9–10 (citing *CUPP Computing AS v. Trend Micro Inc*., 53 F.4th 1376, 1383 (Fed. Cir. 2022)).

We disagree at this stage of the proceeding that the term "database" means an updatable database. First, as we explained in the Sony IPR, the claims recite a "database" not an "updateable database" and it is improper to read embodiments from the Specification into the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir.). Second, the "updatable database" argument advanced by Patent Owner in the Sony IPR does not rise to the level of a prosecution history disclaimer because in the Sony IPR we neither (a) adopted that construction in our institution decision, (b) issued a final written decision adopting that construction, or (c) determined that the '805 patent's claims are patentable *because* they require an updatable database. *See Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017) (extending the prosecution history disclaimer doctrine to statements made in *concluded* IPR proceedings to "ensure that claims are not argued one way in order to maintain their patentability and in a different way

against accused infringers"); *see also Standard Oil Co. v. Am. Cyanamid Co.,* 774 F.2d 448, 452 (Fed. Cir. 1985) (finding the prosecution history "limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution *in order to obtain claim allowance*") (emphasis added); *Southwall Techs., Inc. v. Cardinal IG Co.,* 54 F.3d 1570, 1576 (Fed. Cir. 1995) ("Claims may not be construed one way *in order to obtain their allowance* and in a different way against accused infringers.") (emphasis added).

Accordingly, we preliminarily construe the term "database" to have its plain and ordinary meaning, which does not require updatable databases and does not exclude fixed or non-updateable databases.

D. Obviousness over Niikawa alone or in combination with Enomoto

Petitioner contends claims 9 and 24 would have been obvious over Niikawa alone or the combination of Niikawa and Enomoto. Pet. 4, 16–51. Patent Owner disputes this. Prelim. Resp. 8–19.

For the reasons explained below, we find Petitioner demonstrates a reasonable likelihood of showing at least one of the challenged claims is unpatentable over Niikawa and Enomoto.

1. Niikawa

Niikawa discloses a digital camera and "an image processing technique for obtaining a synthesized image having improved image quality and graphic effect by synthesizing two images." Ex. 1005 ¶ 3. Niikawa refers to its image processing technique as "gradation control processing," but allows a user to select either "a normal exposure mode in which an exposure is made one by one in the usual manner [or] a gradation control processing mode." *Id.* ¶ 74.

Niikawa discloses several digital camera embodiments, including a first that uses dedicated circuitry to perform gamma (γ), white-balance (WB), and shading corrections on an image (Figures 5–12B) and a second that uses software executed by a processor to make these corrections (Figures 13–15). *Id.* ¶¶ 75–143. Figure 5, which illustrates the hardware-based embodiment, is reproduced below.

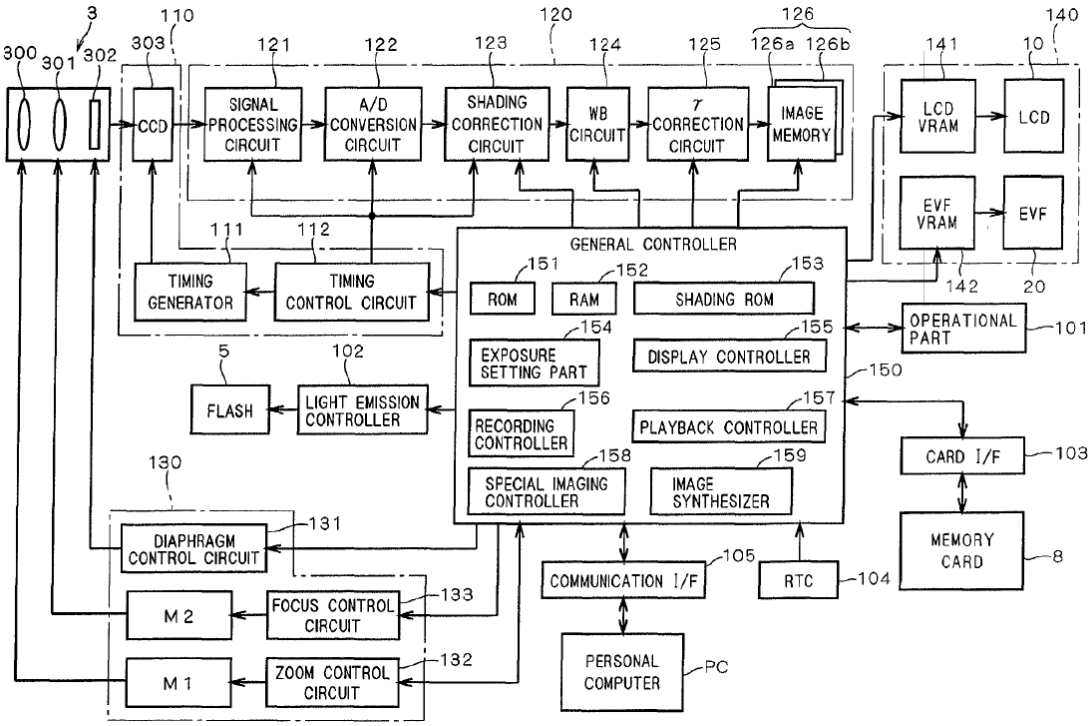

Figure 5 of Niikawa, reproduced above, is a block diagram of Niikawa's digital camera using hardware to perform image correction. The camera includes lens 3, charge-coupled device (CCD) 303, signal processor 120, and general controller 150. *Id.* ¶ 77, Fig. 5. Signal processor 120 "executes a predetermined analogue signal processing and digital signal processing with respect to an image signal outputted from the CCD 303." *Id.* ¶ 79. It consists of signal processing circuit 121, analog-to-digital (A/D) converter 122, shading correction circuit 123, white-balance (WB) circuit 124, gamma

(γ) correction circuit 125, and image memory 126. *Id.* General controller 150 "is implemented by a microcomputer," includes ROM 151, RAM 152, and ROM 153, and is connected to memory card 8 and personal computer PC. *Id.* ¶ 95. General controller 150 can execute programs stored in ROM 151 to perform the exposure, playback, and other functions needed to control digital camera 1. *Id.* ¶ 96. These can be uploaded to and stored in ROM 151 from the PC or memory card 8. *Id.*

Shading ROM 153 stores "[a] plurality of correction tables for different . . . optical conditions such as focal length and f-number." *Id.* ¶ 84. When light passes through lens 3, it is focused onto CCD 303, whose analog output is converted into a digital image file by A/D converter 122. *Id.* ¶¶ 77, 81. General controller 150 selects a "correction table from the shading ROM 153 in accordance with the optical condition" and shading correction circuit 123 multiplies the "image data converted in the A/D conversion circuit 122 [by] a correction table inputted from the general controller 150." *Id.* ¶¶ 82, 84. WB circuit 124 "adjusts a white balance of [the] captured image" and γ correction circuit 125 "corrects a γ characteristic of [the] image." *Id.* ¶ 86. The shading, WB, and γ corrected image is stored in image memory 126.

2. Enomoto

Enomoto discloses "[a]n image processing method in which at least one aberration of an optically recorded image selected from among lateral chromatic aberration, distortion, decrease in the brightness of the edge of the image filed and image blurring is corrected." Ex. 1006, code (57). Enomoto principally describes the method "for use in digital photoprinters" consisting of image scanner 12, image processing apparatus 14, and photoprinter 10,

but also discloses the invention can be used to process images taken with a digital camera. *Id.* at 1:5–7, 9:66–10:11, 11:50–52.

Enomoto's image processing apparatus 14 consists of parallel image processing sections 44/46 for processing image data that is scanned into memories 40/42, respectively, at both low (prescan) and high (fine scan) resolution. *Id.* at 11:60–12:27, Fig. 2. The two image processing sections "perform basically the same processing," but low resolution "processing section 44 does not have an aberration correction part." *Id.* at 12:50–55. Focusing, therefore, on high-resolution processing section 46, it consists of image processing subsection 54 and lens characteristic block 60, where image processing subsection 54 includes image processing block 54A, aberration correction block 56 and image processing block 54B. *Id.* at 12:33–40, 13:6–12. Image processing in block 54A is "performed by any known methods comprising suitable combinations of arithmetic operations, processing with a LUT (lookup table), matrix (MTX) operations, filtering and so forth." *Id.* at 12:56–66.

Characteristic block 60 "has a memory that stores information about the lens characteristics associated with various camera models" such as the "lateral chromatic aberrations and distortions of various lenses." *Id.* at 14:4–8. The information can be stored as "correction functions or coefficients," such as "cubic functions using as a parameter the distance from the optical axis of the lens." *Id.* at 14:26–30, 14:40–43. The information can also be stored in a database. *Id.* at 14:19–23. When photos are taken from a particular camera/lens, aberration correction block 56 receives "information about the associated lens characteristics" from characteristic block 60 and uses the information to correct for "lateral chromatic aberration and distortion." *Id.* at 13:13–19, 14:14–18.

3. Niikawa, Enomoto Combination

As discussed below, Petitioner largely relies on Niikawa to teach most limitations of the challenged claims, arguing they are either expressly taught by Niikawa or would have been obvious in view of the knowledge and skill of a person of ordinary skill in the art. For example, Petitioner argues Niikawa's shading correction circuit 123 within signal processor 120 either *is* a DSP or would have been implemented as a DSP by a person having ordinary skill in the art. *See* Pet. 23–25.

Petitioner further argues that two limitations are either expressly taught by Niikawa or would have been obvious over the combination of Niikawa and Enomoto to a person having ordinary skill in the art. Specifically, Petitioner contends Niikawa expressly teaches controller 150 identifying optical aberrations by retrieving shading correction coefficients stored in ROM 153. *Id.* at 35–39 (citing Ex. 1005 ¶¶ 82–85, 96, 101, 108, Figs. 5, 7, 8). But Petitioner also contends Enomoto teaches a processor identifying at least chromatic aberration or distortion by retrieving "correction functions/equations and/or coefficients" stored in lens characteristics data block 60. *Id.* at 37 (citing Ex. 1006, 11:60–12:9, 12:33–40, 13:6–18, 14:4–49, Fig. 2). Therefore, relying on the testimony of Dr. Stevenson, Petitioner contends a person skilled in the art would have modified Niikawa's ROM 153 to store additional aberration corrections and would have modified the program run by Niikawa's controller 150 "to identify both shading and other types of aberration in shading ROM 153" in order to "further improve the image quality" and because doing so would have been no more than using "a known technique . . . to improve similar devices . . . in the same way." *Id.* at 37–38 (citing Ex. 1003 ¶¶ 135–136).

Petitioner similarly contends Niikawa expressly teaches using controller 150 and the shading corrector to select a specific procedure to optimize the image and correct the aberrations by identifying the shading correction coefficients stored in ROM 153. *Id.* at 39–40 (citing Ex. 1005 ¶¶ 82–85, 107–110, Fig. 6). But Petitioner also contends Enomoto teaches aberration correcting part 56 selecting from among multiple types of aberrations and correcting them by image processing using the lens characteristics, which include the correction functions and/or the coefficients for the correction. *Id.* at 41 (citing Ex. 1006, 13:6–18, 19:25–35, 14:25–49). Therefore, relying on the testimony of Dr. Stevenson, Petitioner contends a person skilled in the art would have found it obvious to modify the processor of the shading corrector to select different correction procedures to correct different types of aberrations because doing so would have "used a known technique . . . to improve a similar device . . . in the same way." *Id.* (citing Ex. 1003 ¶¶ 142–144).

Notwithstanding Patent Owner's arguments to the contrary, which we discuss below, we find Petitioner provides sufficient reasoning with a rational underpinning to support at this stage of the proceeding Petitioner's contentions regarding modifying Niikawa based on the teachings of Enomoto. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) ("[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.").

Patent Owner raises several arguments against the combination of Niikawa and Enomoto. Prelim. Resp. 11–16. First, Patent Owner argues Petitioner's analysis fails the particularity requirement of 35 U.S.C.

§ 312(a)(3) because "Petitioner[] analyze[s] both Grounds 1(a) and 1(b) in a single section" of the Petition and, as a result, Patent Owner cannot "decipher Petitioner['s] arguments for each claim limitation." *Id.* at 8. We disagree, as we find Petitioner's contentions are readily discernible. When Petitioner relies on more than Niikawa's disclosures, it uses the phrase "[t]o the extent that" a particular limitation is not expressly disclosed by Niikawa, that limitation would have been obvious based on the knowledge of a person of ordinary skill in the art or based on the combined teachings of Niikawa and Enomoto. *See* Pet. 37, 40.

Patent Owner also argues that a skilled artisan would not have modified Niikawa's general controller 150 to run Enomoto's image processing algorithms because "Enomoto's image processing apparatus 14 is an exemplary desktop computer" and Petitioner has "fail[ed] to establish that Niikawa's general controller 150 would have the same processing power" and ability to execute Enomoto's algorithms. Prelim. Resp. 13 (emphasis omitted). Patent Owner cites no evidence to support these contentions, which are therefore entitled to little to no weight. *See Johnston v. IVAC Corp.*, 885 F.2d 1574, 1581 (Fed. Cir. 1989) ("Attorney[] argument is no substitute for evidence."); *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (attorney argument and conclusory statements unsupported by factual evidence have little probative value).

Patent Owner next raises a series of "teaching away" arguments. For example, Patent Owner argues the proposed combination of Niikawa and Enomoto fails because "[t]here is no disclosure in Enomoto of a digital camera performing the functionality of the image processing unit 14." Prelim. Resp. 13–14 (emphases omitted). But Enomoto expressly discloses that "scanner 12 is not the only applicable source of supplying image data

into the image processing apparatus 14" and further discloses that other sources "such as a digital camera or a digital video camera" can be used. Ex. 1006, 11:40–46. Enomoto also discloses that its invention is "applicable with advantage to the image (image data) recorded optically with an imaging device such as a digital camera." *Id.* at 11:50–52. Patent Owner also argues Enomoto teaches away by disclosing "if aberrations are corrected separately, 'much time is required to perform mathematical operations and, in addition, mathematical operations for interpolation must be performed several times, which may lead to image deterioration.'" Prelim. Resp. 14 (quoting Ex. 1006, 15:17–24). However, Enomoto teaches a solution to the problem of separately correcting two aberrations, namely, "correcting the distortion *after* correcting the lateral chromatic aberration." Ex. 1006, 15:26–29.

Next, Patent Owner raises a series of "bodily incorporation" arguments. For example, Patent Owner argues Petitioner fails to explain (a) how Enomoto's image processing unit 14 "would otherwise be implemented in Niikawa's digital camera," (b) how Enomoto's aberration correcting part 56 "would otherwise be implemented in Niikawa's digital camera," (c) "how the components of Enomoto actually work or why a POSA would have been motivated to incorporate the teachings of Enomoto in Niikawa's digital camera," and (d) "how Enomoto's calculations would be incorporated into Niikawa's digital camera." Prelim. Resp. 14–16 (emphases omitted). But Petitioner's proposed combination does not seek to bodily incorporate Enomoto's specific hardware or aberration algorithms into Niikawa's digital camera. Instead, Petitioner proposes modifying Niikawa's ROM 153 to contain, in addition to shading correction data as taught by Niikawa, chromatic aberration and distortion correction data and functions as taught by Enomoto. *See* Pet. 37–42. Petitioner further proposes

modifying the programs run by Niikawa's controller 150 to identify at least one of these correction algorithms and its corresponding correction data. *Id.*

> The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference . . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

In re Keller, 642 F.2d 413, 425 (CCPA 1981).

Additionally, Patent Owner argues that Petitioner's analysis for claims 9 and 24 is inconsistent because: (1) for claim 9, Petitioner modifies Niikawa's "shading corrector" based on Enomoto to select a specific procedure, but (2) for claim 24, Petitioner modifies Niikawa's general controller 150 based on Enomoto to select a specific procedure. Prelim. Resp. 17 (citing Pet. 40, 50); *see id.* at 12. Petitioner, however, relies on both the shading corrector and the general controller for claim 9, arguing that Niikawa's shading corrector "uses the correction coefficients sent from general controller 150 to correct shading based on the optical condition," and one of ordinary skill "would have been motivated to implement the programs stored in general controller 150 to identify different types of aberrations." Pet. 40–41. For claim 24, Petitioner focuses on general controller 150 because the limitation at issue, unlike the comparable limitation in claim 9, only recites the use of a "microprocessor" to correct aberrations and does not mention a "digital signal processor." *Id.* at 47–50. Therefore, we do not necessarily see an inconsistency in Petitioner's arguments for claims 9 and 24. Patent Owner may explore this issue more during the trial, if appropriate.

Patent Owner similarly argues that Petitioner's application of Enomoto in claims 9 and 24 is inconsistent. Prelim. Resp. 17–18. Patent

Owner argues that Petitioner points to Enomoto's aberration correcting part 56 as selecting aberration correction procedures for claim 9, but points to Enomoto's CPU of image processing unit 14 as selecting aberration correction procedures for claim 24. *Id.* (citing Pet. 41, 50). For claim 9, however, Petitioner relies on both Enomoto's CPU and aberration correcting part 56, arguing that Enomoto "discloses that the CPU identifies correction functions/equations in the storing section and sends them to aberration correcting part 56 to apply," and that "aberration correcting part 56 'select[s] from among' multiple types of aberrations, such as lateral chromatic aberration and distortion, and corrects them by image processing using the lens characteristics." Pet. 41 (citing Ex. 1006, 13:6–18, 19:25–35), 48. Petitioner appears to focus more on the aberration correcting part for claim 9, which recites that the digital signal processor selects a procedure to correct aberrations, and to focus more on the CPU for claim 24, which recites that the procedure to correct aberrations is selected "using the microprocessor," and we do not see these approaches as necessarily inconsistent. Patent Owner may explore this issue more during the trial, if appropriate.

4. Claim 9

a) digital imaging system/digital camera mechanism

Claim 1 recites a digital imaging system for image filtration, comprising a digital camera mechanism. Ex. 1001, 38:1–3. Petitioner contends Niikawa discloses a digital imaging system/digital camera system by disclosing digital camera 1. Pet. 16–18 (citing Ex. 1005, code (56), ¶¶ 12, 27, 29, 56, 65, 67, 69, 75, 79, 82, 88, Figs. 2–5). Patent Owner does not dispute this contention, with which we preliminarily agree. Prelim. Resp. 9–19.

b) optical lens mechanism

Claim 1 further requires the digital imaging system to include an optical lens mechanism that is a zoom lens. Ex. 1001, 38:3, 38:22. Petitioner contends Niikawa discloses this limitation in the form of imaging lens 3, consisting of zoom lens 300 and focus lens 301. Pet. 18–19 (citing Ex. 1005 ¶¶ 66, 67, 76, 89, Figs. 3, 5), 42–43 (citing Ex. 1005 ¶¶ 66, 67, 76, 89, Figs. 3, 5). Patent Owner does not dispute these contentions, with which we preliminarily agree. Prelim. Resp. 9–19.

c) digital sensor

Claim 1 further requires the digital imaging system to include at least one digital sensor. Ex. 1001, 38:3–4. Petitioner contends Niikawa's CCD 303 is a digital sensor, noting that the '805 patent describes CCD's as digital sensors. Pet. 20–21 (citing Ex. 1005 ¶¶ 67, 77, Figs. 3, 5; Ex. 1001, 2:47–50, 2:64–66, 8:14–16, 13:64–67, 17:51–54, 18:30–35, 33:42–44). Patent Owner does not dispute these contentions, with which we preliminarily agree. Prelim. Resp. 9–19.

d) microprocessor, DSP, system software

Claim 1 further requires the digital imaging system to include a microprocessor, a digital signal processor, and system software. Ex. 1001, 38:4–6.

Petitioner contends a person skilled in the art would have understood that Niikawa's general controller 150, which is "implemented as a microcomputer," is a microprocessor. Pet. 21 (citing Ex. 1005 ¶¶ 82, 84, 95, Fig. 5; Ex. 1003 ¶ 104). Petitioner further contends a skilled artisan would have understood that ROM 151, "which stores programs for processing and controlling functions and components of digital camera 1," stores system

software that is executed by general controller 150. *Id.* at 28 (citing Ex. 1005 ¶¶ 22, 96; Ex. 1003 ¶¶ 119–120).

Petitioner further contends Niikawa's shading corrector 123 is a digital signal processor because it is a "part of signal processor 120 that executes 'digital signal processing with respect to an image signal output from the CCD 303." *Id.* at 23 (quoting Ex. 1005 ¶79). Petitioner further argues that—to the extent shading corrector 123 is not a DSP—a person skilled in the art would found it obvious to implement it as a DSP because Niikawa discloses it can be implemented as either a hardware circuit or a processor, and a person skilled in the art would have known that implementing it as a processor "provides known advantages where a programmable upgrade in processing function (such as image optimization) may be desirable." *Id.* at 24 (citing Ex. 1005, claims 1, 2, 4, 5; Ex. 1003 ¶¶ 107). Petitioner further contends a skilled artisan would have found it obvious to implement shading corrector 123 as a DSP because doing so "would have been a simple substitution of one known element (shading correction circuit 123) for another (processor) yielding predictable results." *Id.* at 24 (citing Ex. 1003 ¶ 110).

Patent Owner contends Niikawa's shading correction circuit 123 is a hardware circuit, not a DSP, and Niikawa distinguishes hardware circuits from processors. Prelim. Resp. 10. Patent Owner further argues a person skilled in the art would not have implemented shading correction circuit 123 as a DSP because a processor would have "greater cost and require[e] more processing power." *Id.* at 11.

Upon consideration of the evidence and argument presented, at this stage of the proceeding we find Petitioner sufficiently demonstrates for purposes of institution either that Niikawa's shading correction circuit 123 is

implemented as a DSP or a person skilled in the art would have found it obvious to implement it as a DSP. Shading correction circuit 123 is one component of signal processor 120, which "executes a predetermined . . . digital signal processing with respect to an image signal outputted from the CCD 303." Ex. 1005 ¶ 79. This strongly suggests shading correction circuit 123 *is* a DSP or at least a component of a DSP. Moreover, if shading correction circuit 123 is not a DSP, we credit Dr. Stevenson's testimony that a person skilled in the art would have implemented it as a DSP because a DSP can be reprogrammed but a fixed hardware multiplier circuit cannot be. Ex. 1003 ¶ 107.

Finally, we are not dissuaded from this preliminary finding by Patent Owner's argument that a skilled artisan would not have implemented shading correction circuit 123 as a DSP due to greater costs, a need for more processing power, or a decrease in battery life because, even if true,

> the fact that the two disclosed apparatus would not be combined by businessmen for economic reasons is not the same as saying that it could not be done because skilled persons in the art felt that there was some technological incompatibility that prevented their combination. Only the latter fact is telling on the issue of nonobviousness.

Orthopedic Equip. Co. v. United States, 702 F.2d 1005, 1013 (Fed. Cir. 1983).

e) ASIC

Claim 9 requires the digital imaging system to include an "application specific integrated circuit" (ASIC). Ex. 1001, 5. Petitioner argues that Niikawa discloses DSP 120 including signal processing circuit 121, A/D conversion circuit 122, WB circuit 124, and γ correction circuit 125, and that

one of ordinary skill "would have understood that these circuits are special hardware circuits, which are part of the application specific integrated circuit ('ASIC'), i.e., signal processor 120." Pet. 25 (citing Ex. 1003 ¶¶ 111–112; Ex. 1005 ¶ 122). Relying on Dr. Stevenson, Petitioner also argues that, to the extent not expressly disclosed in Niikawa, one of ordinary skill "would have been motivated to implement the hardware circuits of signal processor 120 on an ASIC" because "ASICs were commonly implemented with DSPs and microprocessors to correct aberrations in digital cameras" as of the '805 patent's effective filing date. *Id.* at 26. According to Petitioner, "ASICs were known to offload labor-intensive operations of a system, whereby its higher speed hardware switching operation may be leveraged for repetitive tasks such as aberration correction that consume less power." *Id.* at 26–27 (citing Ex. 1003 ¶¶ 113; Ex. 1014, 7:48–8:23, 9:28–47, 17:45–67, 24:48–25:3, 25:51–57). And, Petitioner contends, "Niikawa provides further motivation to replace the circuits in signal processor 102 with an ASIC to attain 'relatively high speed.'" *Id.* at 27 (citing Ex. 1005 ¶ 122). Moreover, according to Petitioner, one of ordinary skill "would have been motivated to implement the circuits in signal processor 120 as an ASIC because it would have been a simple substitution of one known element (the circuits of signal processor 120) for another (an ASIC) to obtain predictable results (fast signal processing and filtration)." *Id.* (citing Ex. 1003 ¶ 115).

Petitioner further argues that Patent Owner conceded during the prosecution of the related '339 patent that "use of a combination of ASICs, microprocessors, and DSPs were known to be used in cameras for image processing and other tasks." Pet. 27 (citing Ex. 1015, 154–155). Accordingly, Petitioner contends, Patent Owner admits that it would have been obvious to implement an ASIC in combination with a DSP and

microprocessor for image processing in a digital camera. *Id.* (citing Ex. 1003 ¶ 114).

Patent Owner argues that Petitioner is "using hindsight bias" and "doe[es] not explain why a [person of ordinary skill in the art] would have only included circuits 121, 122, 124, and 125 of signal processor 120 on an ASIC and why [a person of ordinary skill in the art] would have ***not*** included the shading correction circuit 123 of signal processor 120 on the ASIC." Prelim. Resp. 11–12.

Upon consideration of the evidence and argument presented, at this stage of the proceeding we find Petitioner sufficiently demonstrates for purposes of institution that it would have been obvious for one of ordinary skill to implement the circuits of Niikawa's signal processor 120 on an ASIC because ASICs were well known and commonly implemented for these types of circuits as of the effective filing date of the '805 patent in order to increase speed and reduce power consumption. Based on the Petition, it is not clear whether Petitioner is excluding Niikawa's shading correction circuit from the ASIC but, even if that is the case, Petitioner has presented sufficient evidence for purposes of institution that it would have been obvious to implement the remaining circuits of signal processor 20 on an ASIC to increase speed and reduce power consumption.

f) DBMS

Claim 9 further requires the digital imaging system to include a database management system. Ex. 1001, 38:6. Petitioner contends Niikawa stores shading correction data in ROM 153 as a function of focal length and f-number, and a person skilled in the art "would have understood that those correction tables are an example of a database." Pet. 28–29 (citing Ex. 1005 ¶¶ 82–86, 96, 108; Ex. 1003 ¶ 121). Petitioner further contends that general

controller 150 executing the software stored in ROM 151 "comprise a DBMS at least because they . . . retriev[e] image correction data associated with focal length and f-number at the time of imaging from the database," i.e., from the shading correction tables stored in ROM 153. *Id.* at 30 (citing Ex. 1005 ¶¶ 82–86, 96, 101, 108, Figs. 5, 7, 8; Ex. 1003 ¶¶ 122–123).

Patent Owner contends Niikawa's ROM 153 and the shading correction data stored therein is not a "database" because the recited "database" must be "updatable." Prelim. Resp. 9–10. Patent Owner argues this is so because the arguments it presented in the Sony IPR, which Patent Owner contends amounted to a prosecution history disclaimer, limit the meaning of "database" to "updatable database." *Id.* at 9–10.

At this stage of the proceeding, we find Petitioner establishes a reasonable likelihood of showing Niikawa discloses a database or DBMS as those terms are properly construed. Regarding "database," we disagree that this term requires an updateable database for the reasons discussed in § II.C.1, *supra*. Regarding "DBMS," we note the Specification contains neither that term nor the phrase "database management system" for which it is an acronym. The acronym DBMS does appear in Figure 1 (element 190) and Figure 35 (steps 3510 and 3520). Ex. 1001, Figs. 1, 35. However, only element 190 is part of a digital imaging system, as step 3510 refers to an "External Computer DBMS" and step 3520 refers to a "DBMS in [a] Distributed Network." *Id.* Moreover, the Specification refers to each of the DBMS's shown in Figures 1 and 35 as a "database" rather than a DBMS. *Id.* at 29:65 (referring to "database (190)"), 36:29–31 (referring to "an external computer database (3510)" and "the database of a distributed network (3520)"). Consequently, we preliminarily construe claim 1 to require a digital imaging system having a database rather than a DBMS.

This construction provides the only antecedent basis to "the database" recited in later limitations, namely, those requiring the use of system software "to identify specific optical aberrations and to access *the* database to identify specific corrections to the aberrations." *Id.* at 38:14–16.

As noted above, Petitioner contends that Niikawa's ROM 153 is a database storing shading correction data as a function of focal length and f-number. Pet. 28–29 (citing Ex. 1005 ¶¶ 82–86, 96, 108; Ex. 1003 ¶ 121). Petitioner further contends, "to the extent the claimed 'database management system' ('DBMS') is not limited to a database," that Niikawa's general processor 150 executing software to retrieve shading correction data from ROM 153 is a DBMS. *Id.* at 29–30 (citing Ex. 1005 ¶¶ 82–86, 96, 101, 108; Ex. 1003 ¶¶ 122–123). At this stage of the proceeding, we find Petitioner's contentions sufficient to demonstrate a reasonable likelihood of showing Niikawa teaches either a database (under our preliminary construction of DBMS) or a DBMS (under the plain and ordinary meaning of that term).

g) memory-storage sub-system

Claim 1 further requires the digital imaging system to include a memory storage sub-system. Ex. 1001, 38:6–7. Petitioner contends Niikawa's image memory 126 and memory card 8 are a memory-storage sub-system because "[a]fter image processing, the modified digital image files are stored" there. Pet. 30–31 (citing Ex. 1005 ¶¶ 16, 32, 66, 79, 86, 87, 92, 100–102, 109, 110, 121, Figs. 2, 5). Patent Owner does not dispute this contention, with which we preliminarily agree. Prelim. Resp. 9–19.

h) identify optical aberration and corrections

Claim 9 further requires that "the system software is organized to identify specific optical aberrations and to access the database to identify specific corrections to the aberrations" and that the DSP "selects a specific

procedure to optimize the image and corrects the aberrations." Ex. 1001, 38:14–16, 38:19–21.

Petitioner contends Niikawa discloses identifying specific optical aberrations because general controller 150 identifies a particular shading correction from among a plurality of shading corrections stored in ROM 153 as a function of focal length and f-number. Pet. 35–36 (citing Ex. 1005 ¶¶ 82–85, 96, 101, 108, Figs. 5, 7, 8; Ex. 1003 ¶¶ 132–133). Petitioner further contends that to the extent Niikawa fails to disclose this limitation, the combination of Niikawa and Enomoto discloses it. Specifically, Petitioner contends Enomoto discloses storing lens information such as "correction functions/equations and/or coefficients for correcting aberrations such as lateral chromatic aberration and distortion" and using a CPU to identify that information from memory. *Id.* at 37 (citing Ex. 1006, 11:60–12:9, 12:33–40, 13:6–18, 14:4–49, Fig. 2). Petitioner contends a person skilled in the art would have used Niikawa's general controller 150 to identify shading and other types of aberration corrections stored in ROM 153 based on modifications suggested by Enomoto. *Id.* at 37–38 (citing Ex. 1003 ¶¶ 135–138).

Petitioner also contends Niikawa that the DSP selects a specific procedure to optimize the image and correct the aberrations because the shading corrector obtains correction coefficients from general controller 150 and "selects the multiplication function (the specific procedure) to multiply the received image data by the correction coefficients to optimize the image and correct the shading aberration." Pet. 39–40 (citing Ex. 1005 ¶¶ 82–85, 107–110, claims 1, 2, 4, 5, Fig. 6). Petitioner further contends that to the extent Niikawa fails to disclose this limitation, the combination of Niikawa and Enomoto discloses it. Specifically, Petitioner contends that Enomoto

teaches that the aberration correcting part 56 "'select[s] from among' multiple types of aberrations, such as lateral chromatic aberration and distortion, and corrects them by image processing using the lens characteristic," and that one of ordinary skill "would have been motivated to modify the processor of the shading corrector to select different correction procedures to correct different types of aberrations." *Id.* at 41 (citing Ex. 1006, 13"6–18, 19:25–35; Ex. 1003 ¶ 142).

As discussed in § II.D.3, *supra*, Patent Owner raises several arguments against the combination of Niikawa and Enomoto. However, for the reasons discuss there, we find at this stage of the proceeding that Petitioner demonstrates sufficient reasoning with rational underpinning to modify Niikawa's ROM 153 and the programs executed by general controller 150 and the shading controller based on Enomoto's teachings, and that when so modified Niikawa's general controller 150 and shading controller identify both an optical image aberration (e.g., a chromatic aberration) and a specific procedure used to correct that aberration (e.g., an aberration correction function). *See, e.g.*, Ex. 1006, 14:4–8, 14:14–18, 14:26–30 (Enomoto teaching storing information about a lens's chromatic aberration as an aberration correction function and supplying that information to an aberration correcting part to correct image data).

i) Providing digital and optical data from the optical sensor to the digital signal processor

Claim 9 recites that "the microprocessor is used to provide digital and optical data to the" DSP, and that "the system software forwards the data from the digital sensor to the" DSP. Ex. 1001, 38:12–13, 38:17–18. Petitioner contends Niikawa forwards data captured by CCD 303 and forwards it to signal processor 120 containing shading corrector 123.

Pet. 34–35 (citing Ex. 1005 ¶¶ 77–81, 96, 107, 108, 110, Fig. 5). As discussed in §§ II.D.4.c and II.D.4.d, *supra*, Petitioner identifies CCD 303 as a digital sensor and shading corrector 123 as a DSP or contends a skilled artisan would have found it obvious to implement shading corrector 123 as a DSP. Patent Owner disputes these contentions. Prelim. Resp. 10–11. At this stage of the proceeding, for the reasons discussed in §§ II.D.4.c and II.D.4.d, *supra*, we find Petitioner demonstrates a reasonable likelihood of showing Niikawa's signal shading corrector 123 is a DSP (part of signal processor 120) or would have been implemented as a DSP by a person skilled in the art.

j) alternating lens focal length

Claim 9 further requires that "the lens focal length alternates from specific fixed focal length lens settings in a succession of steps." Ex. 1001, 38:23–24. Petitioner argues that Niikawa discloses changing the focal length of zoom lens 300. Pet. 43 (citing Ex. 1005 ¶¶ 66, 67, 72, 76, 89, 89, Figs. 3, 5). Specifically, Petitioner asserts, "[c]amera main body 2 has a zoom motor M1 for changing the zoom ratio of the zoom lens 300, which is controlled by the lens controller 130 function in general controller 150." *Id.* Because the lens has different focal length positions, according to Petitioner, "shading ROM 153 stores correction tables for different optical conditions, including different focal length positions." *Id.* (citing Ex. 1005 ¶ 84; Ex. 1003 ¶ 148). Petitioner further contends that "[c]hanging to the focal length of the zoom lens alternates the settings for the specific focal length in a succession of steps." *Id.* at 43 (citing Ex. 1018, 6:22–40; Ex. 1001, 25:57–61; Ex. 1019 ¶ 34; Ex. 1003 ¶ 140). Thus, Petitioner argues, Niikawa discloses that the lens focal length alternates from specific fixed focal length lens settings in a succession of steps. *Id.* (citing Ex. 1003 ¶ 150).

Patent Owner does not dispute these contentions, with which we preliminarily agree. Prelim. Resp. 9–19.

k) digital filtration

Claim 9 further requires that "the aberrations from the optical lens mechanism are corrected by applying digital filtration by using the application specific integrated circuit and the digital signal processor" and that "optical aberrations are corrected with digital filtration to modify multiple images from different focal lengths in a succession of data files." Ex. 1001, 38:8–11.

As discussed above, Petitioner argues that one of ordinary skill would have understood that Niikawa's signal processor 120 including signal processing circuit 121, A/D conversion circuit 122, WB circuit 124, and γ correction circuit 125 were an ASIC or would have been obvious to replace with an ASIC. Pet. 31–32. Petitioner asserts that digital camera 1 uses the components of signal processor 120 to correct the aberrations from lens 3 by applying digital filtration. *Id.* at 32 (citing Ex. 1009, 38; Ex. 1003 ¶ 126).

Specifically, Petitioner argues that "CCD 303 outputs the image signal to signal processing circuit 121, which executes analogue signal processing, mainly configured by a CDS (correlation double sampling) circuit and an AGC (auto gain control) circuit, and serves to reduce the sampling noise and adjust the signal level for the image signal outputted from the CCD 303." Pet. 32–33 (citing Ex. 1005 ¶¶ 80, 107, 110). Then, according to Petitioner, signal processing circuit 121 "outputs the image signal to the A/D conversion circuit 122, which converts the analogue image signal outputted from the signal processing circuit 121 to a digital image signal and sends it to the shading corrector." *Id.* (citing Ex. 1005 ¶¶ 81, 107, 110). Thus, Petitioner contends, "the ASIC processes and converts the data for the

shading corrector to filter and correct the shading aberration." *Id.* (citing Ex. 1003 ¶ 127).

Petitioner further argues that the shading corrector "uses the inverse correction coefficients sent from general controller 150 and shading ROM 153 to correct shading based on the optical condition," and that the shading corrector's processor "applies the multiplication function to multiply the received image data by the inverse correction coefficients to correct the shading aberration." Pet. 33 (citing Ex. 1005 ¶¶ 82–85, 107–110, Fig. 6, claim 5). According to Petitioner, one of ordinary skill "would have understood that multiplying the image data by the inverse correction coefficients to correct vignetting is digital filtration," and that "[t]he remaining components of the ASIC (WB circuit 124 and γ correction circuit 125) further digitally filter the image data using a level conversion table inputted from the general controller and a γ correction table." *Id.* (citing Ex. 1005 ¶ 86; Ex. 1003 ¶ 128). Thus, Petitioner contends, Niikawa discloses or renders obvious wherein the aberrations from the optical lens mechanism (shading aberrations) are corrected by applying digital filtration (multiplying the digital image data by correction coefficients) by using the application specific integrated circuit (signal processing circuit 121, A/D conversion circuit 122, WB circuit 124, and γ correction circuit 125) and the digital signal processor (shading corrector)." *Id.* at 34 (citing Ex. 1003 ¶ 129).

Additionally, Petitioner argues that Niikawa discloses capturing, correcting, and storing multiple images in sequential files. Pet. 44 (citing Ex. 1005 ¶¶ 67, 79, 84, 89, 90, 1010, 102, 106–111, Fig. 8; Ex. 1003 ¶ 151). Petitioner also contends that Niikawa discloses that optical aberrations (shading aberrations for specific focal lengths and f-numbers or other types

of aberrations) are corrected with digital filtration (multiplying the digital image data by correction coefficients) to modify multiple images from different focal lengths in a succession of files. *Id.* at 45 (citing Ex. 1003 ¶ 152).

As previously discussed, Patent Owner disputes that Niikawa (or the combination of Niikawa and Enomoto) disclose a DSP or ASIC as claimed. As we explained in Section II.D.4(d) and (e), we determine that Petitioner has made a sufficient showing for these limitations for purposes of institution. Patent Owner does not dispute the remaining contentions with respect to the "digital filtration" limitations, with which we preliminarily agree. Prelim. Resp. 9–19.

l) image storage

Lastly, claim 9 requires that the "modified digital file consisting of the digital data optimized from the aberrations that are corrected from the original optical image is stored in memory." Ex. 1001, 38:19–31. Petitioner contends Niikawa discloses this limitation by storing corrected image files in image memory 126 or memory card 8. Pet. 45 (citing Ex. 1003 ¶¶ 153–155). Patent Owner does not dispute this contention, with which we preliminarily agree. Prelim. Resp. 9–19.

m) Conclusion regarding claim 9

For the reasons discussed above, we find at this stage of the proceeding, Petitioner demonstrates a reasonable likelihood of showing the combination of Niikawa and Enomoto teaches or suggests all of the limitations recited in claim 9. We further find, at this stage, that Petitioner articulates sufficient reasoning with rational underpinning to combine the teachings of Niikawa and Enomoto, and that the combination teaches (directly or indirectly) storing aberration correction algorithms in a database

and retrieving them from the database to perform aberration corrections. Accordingly, we find Petitioner demonstrates a reasonable likelihood of showing claim 1 is unpatentable as obvious over Niikawa and Enomoto.

E. Remaining Challenges

Because we find Petitioner has demonstrated a reasonable likelihood of showing at least one challenged claim is unpatentable as obvious over the combination of Niikawa and Enomoto, we need not review all of Petitioner's challenges. *See* 35 U.S.C. § 314(a) ("The Director may not authorize an inter partes review to be instituted unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.").

III. CONCLUSION

We have reviewed the Petition and Patent Owner's Preliminary Response, and have considered all of the evidence and arguments presented by Petitioner and Patent Owner. We find, at this stage of the proceeding, Petitioner has demonstrated a reasonable likelihood of showing at least one claim of the '805 patent is unpatentable. Accordingly, we institute *inter partes* review of all claims on all grounds raised in the Petition.

The Board has not yet made a final determination with respect to any claim construction issue, priority issue, or the patentability of any challenged claim.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314, an *inter partes* review is instituted on all challenged claims on all grounds; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NIKON CORPORATION, PANASONIC ENTERTAINMENT & COMMUNICATIONS CO., LTD., OLYMPUS CORPORATION, OM DIGITAL SOLUTIONS CORPORATION, FUJIFILM CORPORATION, FUJIFILM NORTH AMERICA CORPORATION, FUJIFILM CORPORATION
Petitioner,

v.

OPTIMUM IMAGING TECHNOLOGIES, LLC,
Patent Owner.

IPR2024-01373
Patent 7,612,805 B2

Before MIRIAM L. QUINN, GARTH D. BAER, and RUSSELL E. CASS, *Administrative Patent Judges*.

QUINN, *Administrative Patent Judge*.

I respectfully disagree with the conclusion that we should not deny institution under 35 U.S.C. § 314(a) based on the analysis of the factors articulated in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential). I dissent because I would have weighed several factors differently than the Majority, and more particularly, the weight given to factors 2, 3, 4, 5, and 6.

A. Evidence of Stay (Factor 1)

I agree with the Majority's analysis of this factor, and the conclusion that it is neutral.

B. District Court Trial Date (Factor 2)

I disagree with the Majority's analysis and conclusion concerning the district court trial date factor. The trial court's docket shows that the final pretrial conference is set for November 6, 2025. Ex. 2009. The Majority states that the pretrial conference date is a "placeholder" and any trial date is not "firm."

The fact remains that Judge Mazzant specially sets all his patent trials and the trial date is set at the pretrial conference. Ex. 1034, 12:21–14:10. Like the Majority, I do not wish to speculate. But I would not characterize the Panasonic trial as "likely" to occur after our final written decision in this IPR without a balanced assessment that the Nikon trial would "likely" occur before the final written decision. As is discussed further in connection with factor 6, the parties have announced a settlement-in-principle, so the trial date issue may be completely moot. Nevertheless, the scheduling order of the District Court is the best indication of a trial date and Patent Owner has argued that some weight should be given to the date of the pretrial conference, with which I agree.

The pretrial conference date of November 6, 2025, however imperfect as an estimate of a trial date, is five months before the final written decision issues in this IPR. The practice of Judge Mazzant to treat the pretrial conference as a date by which the court will set a firm date, is still a significant milestone in that District Court. And nothing in the record suggests that the firm trial date would be more than five months after the current pretrial conference date. Indeed, Patent Owner provided some

evidence of typical practice of the District Court setting a trial at most several weeks after the pretrial conference. PO Supp. Br. 4 n.7 (citing to five trial dockets where the final pre-trial conference date and the jury selection/trial date are discernible through a cursory review of the docket, supporting the contention that Judge Mazzant's pre-trial conference precedes trial by weeks, not months). Petitioner did not address those cases. And the Majority discounts them because Patent Owner failed to show more evidence. I do not think the Patent Owner needed to file into the record here papers filed in District Court for those cases. Nor did Patent Owner need to provide more extensive discussions of the trial and pretrial conference dates in Judge Mazzant's cases, because a cursory review of the Eastern District of Texas Court dockets in PACER, which we reviewed while preparing these opinions, provides all the dates that are relevant to our discussion.

As for the role of the Panasonic trial in this factor, the Majority stated that "the April 27, 2026 pretrial conference date (which is at about the same time as the due date for our final written decision in this IPR)" does not weigh in favor of denial. The analysis does not focus on the proximity of the final written decision and the trial dates, but rather focuses on the District Court's scheduling order as not having a firm trial date specified. Again, I disagree with an analysis that discounts the District Court's practice of shepherding the parties to be ready for trial within weeks of the pretrial conference date. The Panasonic trial date would present a closer question than the Nikon trial date, but would not weigh against discretionary denial.

I find that giving some weight to the status of the pretrial conference is warranted for this particular District Court, and I would therefore weight this factor as marginally in favor of exercising discretion.

C. Investment in the Parallel Proceeding (Factor 3)

I disagree with how the Majority weighed this factor. The parties have exchanged infringement and invalidity contentions, the Markman briefing has concluded, and though it was scheduled for March 27, the Markman hearing was postponed. The Majority reasons that "no claim construction hearing may ever take place in [the Nikon case]." The Majority places a lot of emphasis on the Panasonic case, which is at an earlier litigation stage, and the Petitioner's diligence in filing the Petition. I would have recognized that although the parties and the District Court have invested some effort in the related district court litigation to date, further effort remains to be expended in this case before trial. And there is no action on the part of Petitioner's diligence that warrants weighing factor 3 more in favor of discretionary denial. For this reason, I would weight this factor as neutral.

D. Overlap of Issues (Factor 4)

I would give weight to the filed *Sotera* stipulation, but not to the extent the Majority has. As the Chief Judge states in the March 2025 *Fintiv* Guidance, it is highly relevant to the analysis, but it is not dipositive by itself. March 2025 *Fintiv* Guidance at 3. "Instead the Board will consider such a stipulation as part of its holistic analysis under *Fintiv*." *Id.*

In the proceedings involving these parties, Patent Owner raised questions about the overlap and the duplication that would ensue. Patent Owner argues in the related IPR2024-01372, that there is no complete overlap of the claims. For instance, independent claim 6 and dependent claims 7 and 10 are not challenged in the IPR, but are part of the litigation. IPR2024-01372, Paper 13, at 8. In IPR2024-01373 (the instant proceeding), all the claims in litigation are part of the IPR, but Petitioner asserts system

prior art. IPR2024-01373, Paper 13, at 8 (Nikon asserts 6 systems and 6 patents/publications, including primary references Niikawa discussed above). And in IPR2024-01374 (another related proceeding), a subset of the claims involved in the litigation are challenged in the IPR, but system prior art is being asserted in the litigation. IPR2024-01374, Paper 15 at 8. Petitioner did not address these issues because it relies solely on the strength of the *Sotera* stipulation in the analysis of factor 4.

I would take note that in the related IPR2024-01372, there is no complete overlap of claims, and in all of the related proceedings, system prior art is part of the District Court invalidity contentions. A *Sotera* stipulation alleviates concerns of duplication, but does not mitigate those concerns entirely, including when the litigation's invalidity contentions are expanding and system prior art involved. *See Motorola Solutions, Inc. v. Stellar, LLC*, Paper 19, 3–4 (noting that Petitioner's invalidity arguments in the district court are more expansive and include combinations of the prior art asserted in the proceedings with unpublished system prior art, which Petitioner's stipulation is not likely to moot). Further, I would not characterize the *Sotera* stipulation as "significantly reduc[ing] the overlap" because it is an incomplete assumption. The evidence and the arguments materially differ between the District Court and these proceedings because different sets of claims and systems prior art are involved in District Court. PO Supp. Br. 8 ("Nikon asserts 6 systems and 6 patents/publications, including primary reference Niikawa discussed above."). And with regards to claim overlap, as *Fintiv* states, "if a petition involves the same prior art challenges but challenges claims in addition to those that are challenged in the district court, it may still be inefficient to proceed because the district

court may resolve validity of enough overlapping claims to resolve key issues in the petition." *Fintiv*, at 13.

Therefore, this factor weighs against exercising discretion, but I would consider the circumstances explained above as influencing the weight of this factor when balanced against the others.

E. Defendants are Parties in the Litigation (Factor 5)

I find this factor weighs in favor of exercising discretion to deny institution. There is no dispute that each of the entities involved in the IPR are defendants in the District Court. *See Sotera v. Massimo,* IPR2020-01019, Paper 12 at 19 (precedential) (noting that the parties are the same in both the *inter partes* proceeding and the parallel proceeding, and finding that this factor supports denying institution).

I do not find persuasive any of the non-precedential, prior Board decisions cited by in the Majority opinion finding that factor 5 generally follows factor 2. The precedential and informative cases of the Board do not support the entanglement of factor 5 with factor 2. The discussion in *Fintiv* of factor 5 does not mention any overlap with factor 2. *See also Apple v. Fintiv,* IPR2020-00019, Paper 15 at 15 (informative). Further, in *Snap Inc., v. SRK Technology LLC,* IPR2020-00820, Paper 15 at 16 (precedential), the party overlap for factor 5 was not affected at all by factor 2. Rather, *Snap* commented on whether a stay is likely to be granted (factor 1) or whether there is overlap of issues (factor 4). In *Snap*, even when those two factors weighed against discretionary denial their influence on the outcome of factor 5 was not significant. Factor 5 weighed "neutral, or at most, weighing in favor of exercising discretion to deny institution." *Id.* Here factor 1 is neutral (though there is no stay) and factor 4 weighs against exercising discretion; thus, factor 5 should weigh at least in favor of exercising

discretion to deny institution. *Sand Revolution* is in accord, which also addressed this factor as weighing in favor of exercising discretion, without resorting to the influence of factor 2 (or any other factor). *Sand Revolution,* at 12–13. In short, I see no precedential or informative decision that warrants the analysis of factor 5 to be coupled with the outcome of factor 2, and for that reason too I dissent from the Majority's analysis.

F. Other Circumstances (Factor 6)

I disagree with the Majority that this factor does not weigh for or against denying institution in this case. I note that Patent Owner filed papers notifying the Board that Patent Owner has reached a settlement-in-principle with Nikon, Olympus, Fujifilm, and Panasonic and the parties have requested that the District Court stay deadlines for 45 days. *See* Exs. 2012 (Fujifilm notice requesting a 60-day stay), 2016–2018.

Fintiv's sixth factor refers to other circumstances that impact the Board's exercise of discretion. *Fintiv* at 14. Fintiv also states that "[o]ther facts and circumstances may also impact the Board's discretion to deny institution." *Id.* at 16. I therefore would consider in connection with factor 6 the parties' representation to the District Court that they anticipate finalizing settlement agreements in the upcoming month as indication that the parties desire to conserve Board and District Court resources, and the Board should consider this a circumstance warranting discretionary denial. *See* Exs. 2016–2018 (stating that the parties anticipate filing stipulations of dismissals within forty-five days and stay all deadlines for the same duration).

Further, I view the merits as presenting certain weaknesses that on the whole do not warrant weighing factor 6 as neutral. *Fintiv* at 15 ("By

contrast, if the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present."). For instance, Petitioner relies on Enomoto to teach correction functions/equations and or coefficients for correcting aberrations, such as lateral chromatic aberration and distortion. Pet. 37. Petitioner also asserts that a person of ordinary skill in the art would have been motivated to use those algorithms in addition to Niikawa's shading correction to improve image quality. *Id.* (citing Ex. 1003 ¶ 134). According to Petitioner the technique of identifying multiple types of aberrations is known and would improve similar devices (general controller 150 and the CPU of the processor 14) to correct multiple aberrations. *Id.* at 38 (citing Ex. 1003 ¶ 136). The reason to combine assumes that the Enomoto's algorithms are adequate for the Niikawa processor to correct lens aberrations. The Enomoto scheme, however, is more elaborate and also requires that the processor 14 be informed of the camera used to take the image and the lens characteristics associated with that particular camera. Ex. 1006, 13:27–34. I am not persuaded that Niikawa collects that type of information or that Petitioner considered the role of this type of information in the combined teachings.

Patent Owner also alludes to the deficiency arguing that the Petition does not explain how the components of Enomoto's processor 14 relate to Niikawa's digital camera. Prelim. Resp. 14. At best, Petitioner relies on Niikawa's optical conditions, such as focal length and the f-number, with a nod to Enomoto's storage of information about the lens characteristics. Pet. 36. Paragraph 134 of the Stevenson Declaration is *verbatim* what appears in the Petition, so it does not provide any further detail. Ex. 1003 ¶ 134. The lack of explanation of the role of Enomoto's lens characteristics

in the combined teachings is a weakness in my opinion because the technique of identifying multiple aberrations involves the information on the type of lens that Enomoto captures by processing the film and identifying the camera used to capture the images. The reason Enomoto may have need for this information is that the device is a scanner in a photo-printer, which may be receiving film and images from various cameras, scanners, or the like. Ex. 1006, 9:66–10:11, 11:36–52. Therefore, it makes sense for Enomoto to process information regarding the type of camera and lens and correlate each of these with coefficients for correcting each species of lenses, each species having a corresponding distortion characteristic. It is less clear, even with a desire to improve image quality, that the technique would be readily applicable to Niikawa's system because Niikawa's species of lens (whether the main, or zoom/focus lens information) is not used for correcting aberrations—rather Niikawa uses the optical conditions of focal length and f-number, which do not seem to be lens specific. Pet. 35 (discussing focal length and f-number at the time of imaging). And in any event Petitioner's explanation does not elucidate further. To be sure, Niikawa's lens seems to present aberrations for the Niikawa camera. Ex. 1005 ¶ 60. It is the combination of Niikawa's teachings with Enomoto's teachings, in an attempt to capture different types of lens aberrations, that presents a weak rational underpinning.

I further point out that the Petition does not describe the ASIC as encompassing the shading circuit of Niikawa. Pet. 32–33. Petitioner specifically relies on the ASIC to process and convert the data to a digital image, which then is sent to the shading corrector to filter and correct the shading aberration. *Id.* In other words, I understand the Petition to select certain components of the signal processor 120 to comprise an ASIC, and

rearrange the flow of data through the Niikawa's processor to fit the claims. For instance, the Petition states that after the "processor" of the shading corrector corrects the shading aberration, "the remaining components of the ASIC (WB circuit 124 and γ correction circuit 125) further digitally filter the image data using a level conversion table inputted from the general controller and a γ correction table." *Id.* at 33. The data flow for limitation 9B, therefore, involves digital filtration by converting the image into a digital image signal in the "ASIC," outputting that digital image and feeding it to the shading corrector processor, and sending the corrected data back to the ASIC for additional corrections. The motivation to implement some but not all the components of Niikawa's digital signal processor 120 in an ASIC and turning the shading corrector into a processor seems to be prompted by hindsight, guided by the claim language itself—because the claim requires digital filtration using the *ASIC and a digital signal processor*. Patent Owner points out this issue, which presents a significant question about the motivation to modify Niikawa in the manner alleged. Prelim. Resp. 11–12.

G. Conclusion

A holistic analysis of the *Fintiv* factors on the facts involved, lead me to conclude that we should exercise discretion. Although the *Sotera* stipulation alleviates some concern of duplication, I would not weigh it so strongly to outweigh the other factors warranting exercising discretion. For example, I consider very persuasive that the same parties are in control of the District Court litigation and the trial schedule would put the District Court first as the tribunal that would assess a wider and non-overlapping set of invalidity issues before the deadline for the Board to issue a Final Written Decision. I also find persuasive the inefficiency of going forward with *inter partes* reviews when all the parties have announced settlement in District

Court and the merits are not strong. Based on the circumstances presented, the holistic balance of all the factors warrants the exercise discretion.

Accordingly, I would deny institution under § 314(a), and, respectfully, dissent.

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