

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

Petitioners

v.

OPTIMUM IMAGING TECHNOLOGIES LLC,

Patent Owner

Case IPR2024-01374

Patent No. 10,877,266

PATENT OWNER PRELIMINARY RESPONSE

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

<u>PATENT OWNER'S LIST OF EXHIBITS</u>	
EX. 2001	Claim Construction Memorandum Opinion and Order, <i>Optimum Imaging Technologies LLC v. Canon Inc.</i> , No. 2:19-cv-00246, Dkt. 88 (E.D. Tex. June 11, 2020)
EX. 2002	Order granting Joint Motion to Modify Scheduling Order, <i>Optimum Imaging Technologies LLC v. Fujifilm Corp.</i> , No. 4:23-cv-00922, Dkt. 61 (E.D. Tex. Feb. 14, 2025)

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I. INTRODUCTION

Patent Owner respectfully submits this Patent Owner Preliminary Response (“POPR”) to request the Board deny institution. Petitioners challenge claims 1-30 of Patent No. 10,877,266 (“the ‘266 Patent”). Petition at 1. Petitioners’ arguments fail for at least three reasons.¹

First, instituting this IPR would not be a good use of the Board’s resources in view of related proceedings involving the ‘266 Patent.

Second, the proposed modification is replete with hindsight bias. Petitioners fail to meet their burden to establish obviousness.

Third, even with the proposed modification, the proposed combination has many deficiencies and does not meet the limitations of the challenged claims.

II. THE TIMING OF RELATED PROCEEDINGS SHOWS THAT INSTITUTING THIS IPR WOULD NOT BE AN EFFICIENT USE OF THE BOARD’S RESOURCES

As reflected in Patent Owner’s Updated Mandatory Notices (Paper 9), the ‘266 Patent is involved in multiple parallel district court proceedings and has been challenged by a different petitioner in each of IPR2024-01046 (pending) and IPR2025-00463 (pending).

¹ This POPR briefly addresses the challenged independent claims of the ‘266 Patent. Patent Owner reserves all rights to address all grounds and all claims.

The district court scheduling order set a final pretrial conference for November 6, 2025. EX. 2002 at 5. This conference will occur long before a final written decision would be expected in this IPR in May 2026. Following a court ordered reduction of asserted claims, Patent Owner now asserts claims 1, 2, 10, 21, 22, 23, 28, and 29 of the ‘266 Patent in the parallel district court proceedings.² The parties will have expended significant resources by the time of an institution decision in this IPR, let alone by the time of a final written decision in this IPR in April 2026. Instituting this IPR would not be a good use of resources. The validity of the ‘266 Patent should be evaluated in district court.³

IPR2024-01046 involving overlapping claims 1-27 and 29-30, but different grounds, was instituted on January 17, 2025. A final written decision in IPR2024-

² Patent Owner previously asserted claims 1-30 of the ‘266 Patent in the parallel district court proceedings.

³ Based on current law/policy, Patent Owner understands that a *Sotera*-style stipulation precludes discretionary denial under *Fintiv*. See, e.g., Former Director Vidal, Memorandum, ‘Interim Procedure for Discretionary Denials in AIA PostGrant Proceedings with Parallel District Court Litigation’ dated June 21, 2022. If there is an intervening change in law/policy, Patent Owner will seek authorization for supplemental briefing to address the *Fintiv* factors in detail.

01046 will be entered long before a final written decision would be expected in this IPR in May 2026. Because the validity of the ‘266 Patent will already be evaluated by the Board in IPR2024-01046, instituting this IPR would not be a good use of the Board’s resources. Moreover, as discussed above, the validity of the ‘266 Patent should be evaluated in district court. Instituting this IPR would be extremely burdensome for the parties and the Board. Patent Owner should not be forced to repeatedly defend the validity of the ‘266 Patent in multiple IPRs, as well as in district court.⁴

IPR2025-00463 involving the same claims 1-30 and the same grounds was recently filed, with no justification for the delay in filing that petition. The complaints in the parallel district court proceedings were filed in October 2023. The petitioner-defendants in IPR2025-00463 and in this IPR are not being

⁴ Based on current law/policy, Patent Owner understands that multiple petitions filed by different parties without a “significant relationship” may preclude discretionary denial under *General Plastic*. See, e.g., *Videndum Production v. Rotolight*, IPR2023-01218, Paper 12 at 6 (PTAB Apr. 19, 2024). If there is an intervening change in law/policy or in facts/circumstances, Patent Owner will seek authorization for supplemental briefing to address the *General Plastic* factors and relevant facts/circumstances in detail.

efficient. For at least the reasons discussed above, instituting this IPR would not be a good use of the Board's resources and the validity of the '266 Patent should be evaluated in district court.

III. THE '266 PATENT CLAIMS NOVEL AND NON-OBVIOUS METHODS FOR CORRECTING ABERRATIONS IN A DIGITAL CAMERA

The '266 Patent claims methods that perform in-camera aberration correction using novel and non-obvious combinations of hardware and software. EX. 1001 at Abstract (“A system is disclosed for the automated correction of optical and digital aberrations in a digital imaging system.”)

“Though every major advance in photography has solved an important problem, there are still remaining photographic problems to be solved in order to meet the goals of **optimizing optical imaging quality** while **increasing simplicity and efficiency** and **lowering cost**.” EX. 1001 at 3:21-25 (emphasis added).

“The present system dramatically improves image quality. This digital imaging system eliminates, or minimizes, post-production processes. In addition, the system presents substantial cost savings as well as time savings relative to existing digital imaging systems because of the automation of integrated in-camera optical and digital corrections of aberrations.” EX. 1001 at 7:26-31.

To achieve the advantages described in the specification, the independent claims of the '266 Patent recite, *inter alia*, “a digital camera,” “in-camera

software,” and “a database system” wherein the digital camera can be upgraded to improve the in-camera aberration correction process. As claimed, the methods include upgrading the digital camera with updated software and/or correction data. The methods also include digitally processing at least one captured image to produce a corrected image and wirelessly transmitting the corrected image, for example, to an external monitor such as a personal computer or to external storage, etc.

As explained in the '266 Patent, “[t]his in-camera corrective feature provides a powerful tool to rapidly manipulate an image without using post-production editing software tools.” EX. 1001 at 16:34-36.

The '266 Patent includes 30 claims, with claims 1 and 22 being independent. Independent claims 1 and 22 are set forth below⁵:

Claim 1	
1[pre]	A method of processing one or more images with a digital camera, comprising:
1[a-1]	digitally processing at least one captured image, the processing using in-camera hardware and software that is configured to:
1[a-2]	perform a plurality of image correction algorithms,
1[a-3]	process image correction data stored in a database system,
1[a-4]	receive updated software and image correction data, and
1[a-5]	upgrade the digital camera with the updated software and image correction data;

⁵ Patent Owner uses the same annotations as Petitioner for convenience and clarity during review. Petition at v-vii.

1[b]	storing in memory one or more corrected images resulting from digitally processing the at least one captured image; and
1[c]	wirelessly transmitting at least one of the one or more corrected images,
1[d]	wherein the in-camera software and database system are upgradable to provide improved algorithms and correction data for correction of images.
Claim 22	
22[pre]	A method of displaying one or more images captured by a digital camera on an external monitor, comprising:
22[a-1]	digitally processing at least one captured image to produce one or more corrected image, the processing using in-camera hardware and software that is configured to:
22[a-2]	perform a plurality of image correction algorithms,
22[a-3]	process image correction data stored in a database system,
22[a-4]	store updated software or image correction data or both, and
22[a-5]	upgrade the digital camera with the updated software or image correction data or both; and
22[b]	wirelessly transmitting at least one of the one or more corrected images in a format that the external monitor can receive,
22[c]	wherein the in-camera software and database system are upgradable to provide improved algorithms and correction data for correction of images.

A. PERSON OF ORDINARY SKILL IN THE ART (“POSA”) WAS PREVIOUSLY DEFINED BY THE DISTRICT COURT

Petitioners propose a POSA 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.” Petition at 5.

The district court found that a POSA would have had “an electrical engineering degree and three years of relevant experience.” EX. 2001 at 6.

Patent Owner submits that the district court's definition of a POSA should be adopted for purposes of determining whether to institute. Patent Owner reserves all rights regarding the correct definition of a POSA.

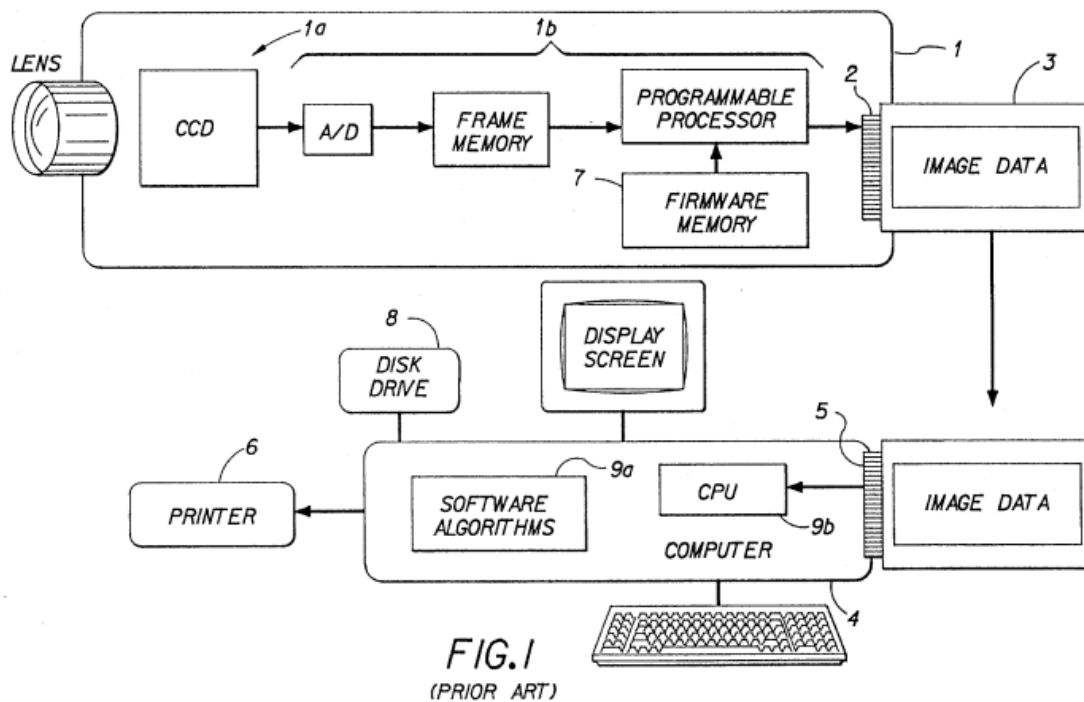
B. CLAIM CONSTRUCTION

Petitioners identify no terms or phrases for construction. Petition at 5. Patent Owner reserves all rights regarding the correct claim constructions.

IV. OVERVIEW OF SARBADHIKARI

A. PRIOR ART FIG. 1 OF SARBADHIKARI

With respect to prior art FIG. 1, Sarbadhikari explains it was known to use a still camera 1 to capture images, store images on a removable memory card 3, and transfer the images from the memory card 3 to the computer 4. EX. 1004 at 4:1-9.



Application software supplied by the camera manufacturer was used by the CPU 9b of the computer 4. EX. 1004 at 4:15-20. “To update this software, the user must be provided with a new program on a *floppy disc*, which can be transferred to the hard drive 8” of the computer 4. EX. 1004 at 4:20-23 (emphasis added).

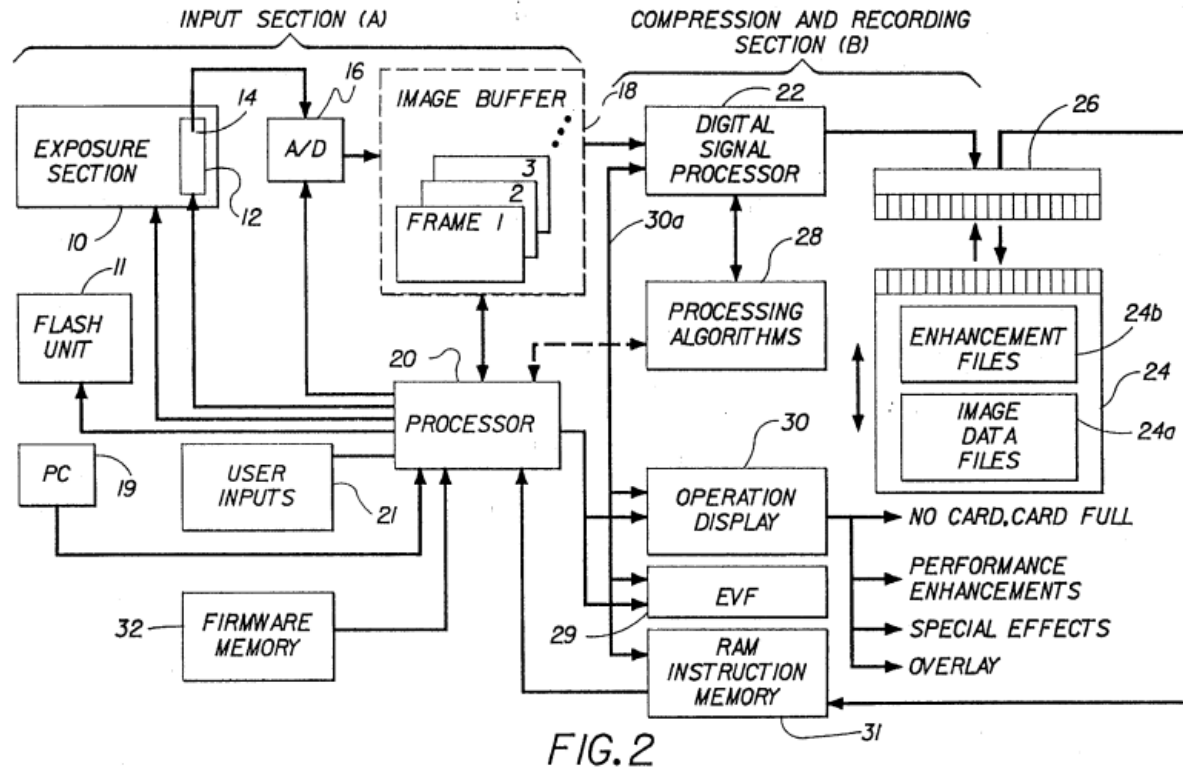
“For example, the floppy disk may contain a ‘plug-in’ module ... [that] contains both code to allow the images to be downloaded from the camera to the computer, and software code to create color images from the digitized camera image data.” EX. 1004 at 4:23-28.

“The software code implements algorithms for processing the color filter array sampled image data supplied by the camera. These algorithms include color interpolation, color balance, and color correction.” EX. 1004 at 4:28-32.

Thus, Sarbadhikari explains it was known for a CPU of an external computer to use algorithms to perform color interpolation, color balance, and color correction.

B. FIG. 2 OF SARBADHIKARI

With respect to FIG. 2, Sarbadhikari discloses a still camera with input section A including an exposure section 10 with sensor 12, a photocell 19, a flash unit 11, an A/D converter 16, and an image buffer 18. EX. 1004 at 5:55-6:14.



“A programmed control processor 20 generally controls the input section A of the camera by initiating and controlling exposure (by operation of the diaphragm and shutter (not shown) in the exposure section 10), by controlling the flash unit 11, by generating the horizontal and vertical clocks needed for driving the sensor 12 and for clocking image information therefrom, and by enabling the A/D converter 16 in conjunction with the image buffer 18 for each signal segment relating to a picture element.” EX. 1004 at 6:14-23. The programmed control processor 20 also generates information about the condition and capability of the memory card 24 including the presence of a card 24, if a card is present but is full

of images, and if enhancement files 24b are present on the card. EX. 1004 at 7:31-40.

“Once a certain number of digital image signals have been accumulated in the image buffer 18, the stored signals are applied to a programmed digital signal processor 22, which controls the throughput processing rate for the compression and recording section B of the camera.” EX. 1004 at 6:28-31. “The digital signal processor 22 compresses each still image stored in the image buffer 18... [and] applies a compression algorithm from the memory 28 to the digital image signals, and sends the compressed signals to a removable storage device via an interface 26.” EX. 1004 at 6:33-40.

1. Enhancement Files 24b of Sarbadhikari

Sarbadhikari’s memory card 24 may include image data files 24a and enhancement files 24b. EX. 1004 at FIG. 2. As explained below, the enhancement files 24b may include some software enhancements used by the camera and other software enhancements used by the computer.

“When the memory card 24 is inserted into the camera, the processor 20 uses the firmware algorithms in the memory 32 to determine if the memory card 24 contains ‘software enhancements’ ***which can be used by the camera.***” EX. 1004 at 7:54-57 (emphasis added); FIG. 7. “If the card does contain appropriate ‘software enhancements’... these are downloaded from the enhancement file section 24b of

the card 24 to the RAM instruction memory 31 and used by the programmable processor 20 in place of some portion of the firmware algorithms supplied with the camera from the firmware memory 32.” EX. 1004 at 7:60-65.

For example, software enhancements may include ISO exposure indexes, algorithms necessary for variable gain and for storage of either color images or the monochrome record from the color image section. EX. 1004 at 9:67-10:8. **These software enhancements affect the parameters for image capture.** *See also, e.g.,* EX. 1004 at 5:13-15 (“Enhancement files can be included which control capture parameters such as exposure time, aperture setting, flash range output, and so on.”)

As shown in FIG. 7, the software enhancements may cause the processor 20 to change the ISO exposure and check a ‘black and white’ bit. EX. 1004 at 10:8-10.

As discussed above, processor 20 controls input section A, specifically, initiating and controlling exposure section 10, flash unit 11, generating the clocks needed for driving the sensor 12, and enabling the A/D converter 16. EX. 1004 at 6:14-23. **Thus, processor 20 uses the enhancement files 24b to determine the parameters for image capture.**

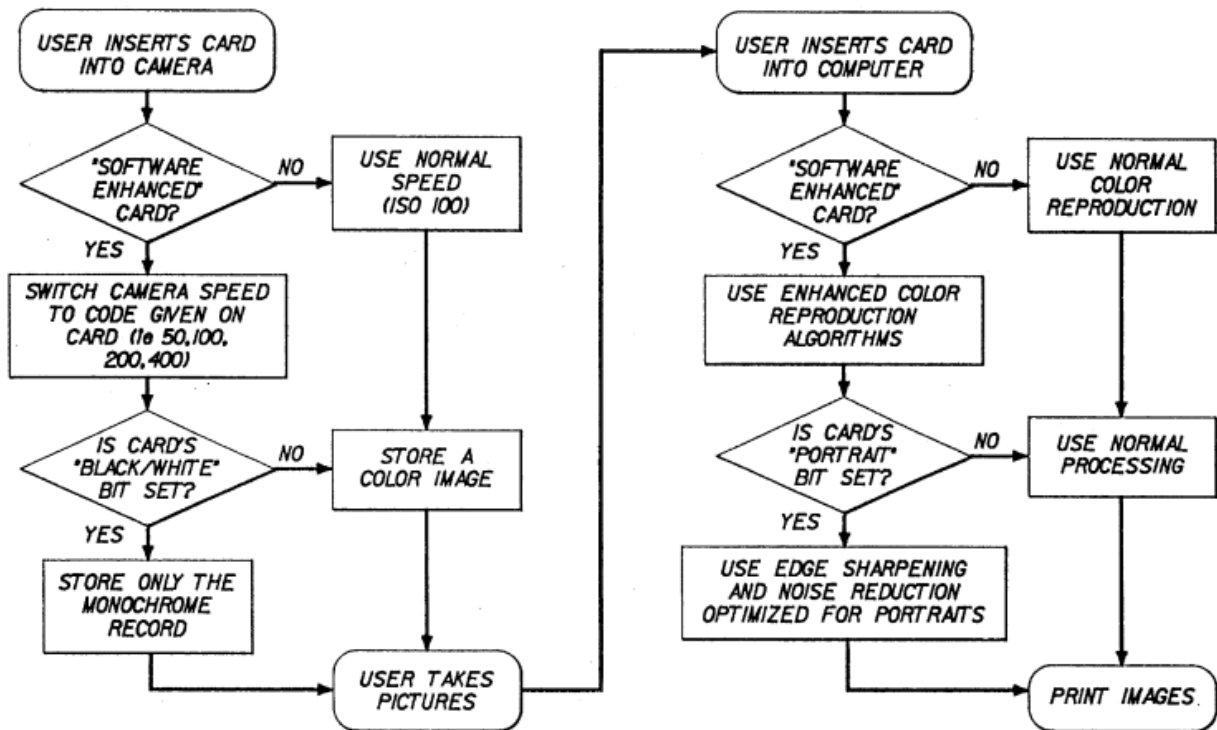


FIG. 7

“After the images from the camera are stored on the memory card 24, the card is inserted into the computer memory card reader 5 (see FIG. 1).” EX. 1004 at 8:4-6. “In certain applications where the memory card may contain ‘software enhancements’ *which can be used by the computer*, the computer uses the software supplied with the camera to check if the memory card contains such algorithms.” EX. 1004 at 8:6-10 (emphasis added). “If the card does contain appropriate ‘software enhancements’... these are downloaded from the card to the RAM instruction memory 9a and used by the CPU 9b in place of some portion of the software algorithms from the hard drive 8.” EX. 1004 at 8:13-17.

As shown in FIG. 7, “[w]hen the card 24 is inserted into the computer 4, the computer checks the Card Information Structure to determine if the card is a normal memory card, or a ‘software enhanced’ card.” EX. 1004 at 9:58-62.

“For ‘software enhanced’ cards, more elaborate color reproduction algorithms might be used, to provide higher quality images. The card's ‘portrait bit’ is also checked, to see if the user has selected a card for taking portraits. If so, the special processing is used to soften the image and reduce noise which might appear as facial blemishes. The image is then printed by the printer.” EX. 1004 at 10:16-23.

Thus, Sarbadhikari discloses it is the CPU 9b of the computer 4 that uses the enhancement files 24b to perform color reproduction, edge sharpening, and/or noise reduction.

“Since the removable memory can be used to store code for processing the image data *in the computer*, this code can include the color interpolation, color balance, and correction algorithms described in connection with FIG. 1, or future improved versions of these algorithms. The advantage of storing the algorithms on the removable memory is that it eliminates the need for a separate means of supplying the code, such as the floppy disk.” EX. 1004 at 8:32-39 (emphasis added).

2. *Alleged Benefits of Sarbadhikari*

As discussed below, Sarbadhikari emphasizes the alleged benefit of using a removable memory card, rather than a cable interface. Sarbadhikari also emphasizes the alleged benefit of supplying algorithms (software enhancements) to the computer along with the images on the removable memory card.

“[T]he images are transferred from the camera to the computer via the removable memory, ***rather than a cable interface***. Therefore, the camera does not have to be in the same location as the computer. This makes it possible to view the images from the camera in many different locations, on many different computers, as long as the computer has the ability to both accept the removable memory and correctly process the image data.” EX. 1004 at 8:24-32 (emphasis added).

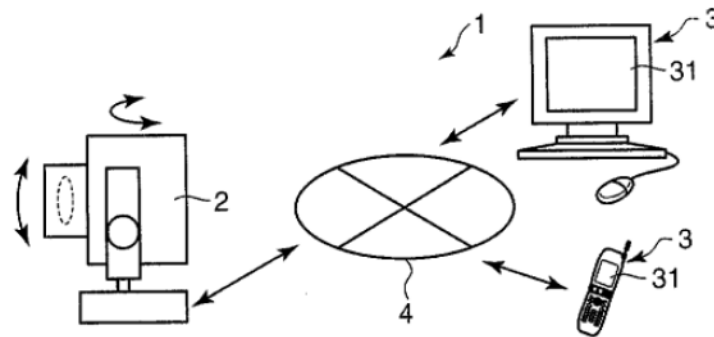
“Supplying the algorithms along with the images on the removable memory, such as a PCMCIA card, makes it possible for ***any computer*** capable of reading the image data from the card to also download and utilize the algorithms needed to process the image data in order to create a full color image.” EX. 1004 at 8:39-44 (emphasis added); *see also* EX. 1004 at 8:44-49.

V. OVERVIEW OF KATAGIRI

With respect to FIG. 1, Katagiri discloses a surveillance system 1 including a surveillance camera 2 and a controller 3 (for example, a personal computer or a mobile phone) with an image display unit 31. EX. 1006 at [0020]. Katagiri

discloses that “when the surveillance target area is imaged by the surveillance camera 2, data from the image is transmitted from the surveillance camera 2 to the controller 3 via the communication network 4.” EX. 1006 at [0021].

[Figure 1]



EX. 1006 at 18.

Katagiri further discloses “when a request is input from the controller 3 to the surveillance camera 2, the information indicated in the request ... is sent from the controller 3 to the surveillance camera 2 via the communication network 4, and the surveillance camera 2 operates on the basis of the requested information.” EX. 1006 at [0021]. For example, “[i]nstructions as to the respective drive amounts for pan operation, tilt operation, and zoom operation are given by an input unit included in the controller 3.” EX. 1006 at [0067].

VI. GROUND 1 BASED ON SARBADHIKARI AND KATAGIRI FAILS**A. PETITIONERS FAIL TO ESTABLISH THAT SARBADHIKARI AND KATAGIRI ARE PROPERLY COMBINABLE****1. *Petitioners' proposed modification changes the principle of operation of Sarbadhikari***

Petitioners argue that “[a] POSA would have understood that it would be beneficial to add Katagiri’s communication network to Sarbadhikari’s camera to better facilitate the transmission of the corrected image between Sarbadhikari’s camera and an external device.” Petition at 11. Petitioners further argue that “[a] POSA would have simply added Katagiri’s communication network (e.g., wireless LAN) to Sarbadhikari’s camera to wirelessly transfer the corrected, compressed and stored images to an external device.” Petition at 12.

It is well understood that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP 2143.01 (citing *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959) (holding the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.”)).

As discussed above, Sarbadhikari's proposed solution is focused on the removable memory card and Sarbadhikari expressly explains the benefits thereof. Petitioners' proposed modification to add Katagiri's communication network (e.g., wireless LAN) to Sarbadhikari's camera for image transmission would change Sarbadhikari's principle of operation.

Using wireless communications for image transmission instead of the removable memory card is contrary to Sarbadhikari's proposed solution. Petitioners are using hindsight bias and the proposed combination of Sarbadhikari + Katagiri changes the principle of operation of Sarbadhikari. For example, Sarbadhikari expressly distinguished prior art that uses a wired cable to transmit images from the camera to the computer. EX. 1004 at 8:24-32. A POSA reading Sarbadhikari would understand that wireless transmission of images is disfavored for the same reasons wired transmission of images is disfavored. Modifying Sarbadhikari to wirelessly transmit images would change the principle of operation of Sarbadhikari, which emphasizes the use of the removable memory card.

Sarbadhikari teaches the use of a removable memory card so "the camera does not have to be in the same location as the computer." EX. 1004 at 8:24-32. Petitioners rely on Katagiri's disclosure of using a wireless LAN ("WLAN") or Bluetooth, both which require the camera to be in limited range of the computer. See Petition at 12. A POSA would understand that WLAN and Bluetooth only

communicate over short distances. That is opposite to the proposed solution disclosed in Sarbadhikari. The proposed solution expressly disfavors using a wired cable over short distances. Instead, Sarbadhikari's removable memory card can be used with "many different computers" in "many different locations". EX. 1004 at 8:24-32.

Moreover, Petitioners' proposed modification does not address transmitting enhancement files for use by the computer. Petitioners argue that the camera of Sarbadhikari + Katagiri would wirelessly transfer images from the camera to the computer. *See* Petition at 12. Because Petitioners only allege that the proposed combination would wirelessly transmit images, this also changes the principle of operation of Sarbadhikari.⁶

Petitioners entirely ignore the enhancement files used by the computer in Sarbadhikari. Indeed, one of the alleged benefits of Sarbadhikari is "[s]upplying the algorithms along with the images on the removable memory" to the computer. EX. 1004 at 8:39-44. Sarbadhikari expressly distinguished prior art that separately transfers images (via cable or memory card) and software (via floppy disc). Sarbadhikari discloses and emphasizes a removable memory card that provides

⁶ Petitioners do not explain how the proposed combination of Sarbadhikari + Katagiri would transmit both images and enhancement files. *See infra*.

both images and software enhancements to the computer. Sarbadhikari teaches away from using anything other than the removable memory card. Petitioners are using hindsight bias.

For at least these reasons, Petitioners' proposed combination fails.

2. Petitioners fail to show how the proposed combination would function

Though it may be possible to add wireless communication capabilities to a camera such that the camera may communicate over a WLAN, that argument or explanation is **not present** in the petition.⁷

Petitioners also do not explain whether or how a POSA would add wireless communication capabilities to Sarbadhikari's camera. For example, Petitioners do not explain adding a wireless communication unit to Sarbadhikari's camera.

Katagiri does not show or explain a wireless communication unit either. Katagiri states: "The surveillance camera 2 and the controller 3 also each comprise a communication unit (**not shown**) for enabling mutual communication." EX. 1006 at [0020] (emphasis added). Petitioners do not argue or explain modifying

⁷ For at least the reasons discussed herein, a POSA would not be motivated to add wireless communication capabilities to Sarbadhikari's camera. *See infra*.

Sarbadhikari's camera by including Katagiri's communication unit. Petitioners only argue modifying Sarbadhikari's camera by adding a WLAN.⁸

Petitioners also do not explain how a wireless communication unit would be initialized/controlled/used by Sarbadhikari's modified camera. Katagiri does not show or explain such initialization/control/usage either. At most, Katagiri states: "The I/O unit 208 controls input and output of data between the controller 3 and the drive unit 209, sends image data to the controller 3, receives request information from the controller 3, etc." EX. 1006 at [0062]. However, Katagiri does not provide sufficient information to understand the relationship between the I/O unit 208 and the communication unit (not shown). Petitioners also do not argue or explain modifying Sarbadhikari's camera by including Katagiri's I/O unit 208. Petitioners do not argue or explain modifying any other component of

⁸ Contrary to Petitioners' arguments, a POSA would understand that one does not "add a WLAN" to a device, but rather, may choose to add a wireless communication means in order for the device to communicate over a WLAN. A POSA would understand that a WLAN can be set up to allow multiple devices within a limited range (or area) to wirelessly communicate with each other. A WLAN requires a base station and/or a router to direct communications among devices.

Sarbadhikari's camera for initialization/control/usage of any communication unit either.

Moreover, Petitioners do not explain whether or how the proposed combination of Sarbadhikari + Katagiri would wirelessly transmit enhancement files along with the images. Petitioners also do not explain whether or how the proposed combination of Sarbadhikari + Katagiri would use the removable memory card with the proposed addition of wireless communication capabilities.

For at least these reasons, Petitioners' proposed combination fails.

3. Petitioners' proposed motivation is not sufficient

Petitioners argue that "the addition of Katagiri's communication network to Sarbadhikari's camera would make the image transmission faster and easier than using the removable memory card." Petition at 11.

Petitioners' proposed modification contradicts the express solution disclosed in Sarbadhikari. Petitioners are using hindsight bias. Petitioners' proposed motivation argument fails for at least three additional reasons.

First, Sarbadhikari expressly explains the alleged benefits of using Sarbadhikari's removable memory card (*see* section IV.B.2) and Petitioners fail to address how using WLAN would outweigh the lost benefits. Petitioners therefore fail to establish that a POSA would be motivated to make the proposed modification.

Second, Petitioners do not explain why or how using a WLAN for image transmission would be faster or easier than using Sarbadhikari's removable memory card. A POSA would understand that wireless communications are typically slower than wired communications or direct transfer from a memory card to a computer. Wireless communications are also more susceptible to network interruptions and bottlenecks. As such, a POSA would not think that using a WLAN is faster or easier than using Sarbadhikari's removable memory card. Sarbadhikari expressly explains the alleged benefit of being able to use Sarbadhikari's removable memory card with "many different computers" in "many different locations". EX. 1004 at 8:24-32. A POSA would not be motivated to increase the cost and complexity of Sarbadhikari's camera to include wireless communication capabilities at least because Sarbadhikari expressly teaches away from using anything other than the removable memory card.

Third, Petitioners do not explain how transmitting both enhancement files and images in Sarbadhikari + Katagiri would be faster or easier over WLAN rather than the removable memory card. As mentioned above, Petitioners do not explain what "faster and easier" transmission means in context.

For at least these reasons, Petitioners' proposed combination fails.

B. PETITIONERS' PROPOSED COMBINATION FAILS TO MEET THE CLAIM LIMITATIONS

Petitioners primarily rely on the disclosure of Sarbadhikari in its analysis of independent claims 1 and 22. *See* Petition at 12-23 and 28-31.

Petitioners argue that “Sarbadhikari’s in-camera hardware such as the programmable processor 20 use these algorithms to perform image corrections for captured images.” Petition at 16. However, as discussed above, the relied-upon disclosure of Sarbadhikari relates to processor 20 using enhancement files to set parameters for **image capture**, not processor 20 digitally processing a captured image.⁹ As discussed above with respect to FIG. 7, processor 20 uses the enhancement files to change the ISO exposure and check a ‘black and white’ bit. This is done before image capture.

Petitioners also argue Sarbadhikari discloses “a set of parameters in the enhancement files used for enhancing skin tones, sharpness, and color aliasing” (Petition at 16) but these are again the parameters for **image capture**. Sarbadhikari explains that “[a] particular set of parameters can be used to tailor the capture parameters to the type of scene or subject being captured.” EX. 1004 at 5:15-17;

⁹ Notably, the petition does not rely on the “pre-exposed” image data files that can be included in enhancement files 24b that would allow a user to include, e.g., seasonal templates as shown in FIG. 9 of Sarbadhikari.

see also EX. 1004 at 5:13-15 (“capture parameters such as exposure time, aperture setting, flash range output, and so on”). **These parameters are not used to digitally process a captured image.**

It is also noted that Sarbadhikari’s processor 22 merely applies a compression algorithm from the memory 28 to the digital image signals. EX. 1004 at 6:33-40. There is no disclosure in Sarbadhikari that the compression algorithm in memory 28 (as opposed to the algorithms in firmware memory 32) is changed based on “software enhancements” in the enhancement files 24b of memory card 24. Petitioners also do not argue or otherwise explain how processor 22 using a compression algorithm discloses the limitations of independent claims 1 and 22.

Petitioners also refer to, for example, algorithms for “color reproduction,” “edge sharpening,” and “noise reduction” (Petition at 15) but these algorithms are used **by the CPU 9b of the computer 4**, not the camera. Sarbadhikari highlights one of the problems the ‘266 Patent was designed to avoid. The prior art was heavily dependent on CPU-intensive processes, including post-production programs on an external computer like Adobe Photoshop. See, e.g., EX. 1001 at 6:47-54.

Moreover, Petitioners fail to establish that the algorithms disclosed in Sarbadhikari correspond to the claimed “plurality of image correction algorithms” in the ‘266 Patent. In context, the ‘266 Patent discloses “correction of optical and

digital aberrations”. *See, e.g.*, EX 1001 at Abstract. The alleged algorithms and the use of those algorithms in Sarbadhikari does not disclose or render obvious the independent claims of the ‘266 Patent. Katagiri does not cure the deficiencies of Sarbadhikari and Petitioners do not argue otherwise.

For at least these reasons, Petitioners fail to show that the proposed combination of Sarbadhikari + Katagiri renders obvious “digitally processing at least one captured image” using in-camera hardware and software as configured and as required by independent claims 1 and 22.

VII. GROUND 2-7 FAIL

Independent claims 1 and 22 are only challenged in Ground 1. For at least the reasons discussed above, Ground 1 fails. As such, Grounds 2-7 fail as well.

VIII. CONCLUSION

For at least the reasons set forth herein, Patent Owner respectfully requests that institution be denied.

Respectfully submitted,

Date: February 21, 2025

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CERTIFICATE OF COMPLIANCE

This PATENT OWNER PRELIMINARY RESPONSE (“POPR”) consists of 4,839 words, which is no more than 14,000 words, excluding table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The POPR complies with the type-volume as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies the PATENT OWNER PRELIMINARY RESPONSE and all exhibits thereto were served on the undersigned date via email, as authorized by Petitioners, at the following email addresses:

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