

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KARL STORZ ENDOSCOPY-AMERICA, INC.,
Petitioner,

v.

NOVADAQ TECHNOLOGIES, INC.,
Patent Owner.

Case IPR2015-01847
Patent 7,420,151 B2

Before MICHAEL W. KIM, JENNIFER S. BISK, and
DANIEL N. FISHMAN, *Administrative Patent Judges*.

FISHMAN, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Karl Storz Endoscopy-America, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) for *inter partes* review of claims 1–17 of U.S. Patent No. 7,420,151 B1 (“the ’151 Patent”) (Ex. 1001) pursuant to 35 U.S.C. §§ 311–319. Novadaq Technologies, Inc. (“Patent Owner”) filed a Patent Owner Preliminary Response (Paper 6, “Prelim. Resp.”). We have authority to determine whether to institute a trial under 35 U.S.C. § 314, which provides that an *inter partes* review may be instituted only if “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.”

Petitioner challenges the patentability of claims 1–17 of the ’151 Patent under 35 U.S.C. §§ 102 and 103. We determine that there is a reasonable likelihood that Petitioner would prevail in showing that claims 1–17 are unpatentable. Pursuant to 35 U.S.C. § 314, we authorize an *inter partes* review to be instituted as to claims 1–17 of the ’151 Patent.

A. *The ’151 Patent*

According to the ’151 Patent, medical imaging devices for viewing internal body tissue typically illuminate subject tissue with broadband (i.e., white) light and present an image of the illuminated tissue on a display monitor device. Ex. 1001, 1:20–28. Later medical developments apparently recognized a benefit of viewing internal body tissue using short wavelength (e.g., blue and green) illumination of the tissue to, *inter alia*, better highlight blood and blood vessel structures. *Id.* at 1:29–43. The ’151 Patent indicates prior known medical imaging devices recognized the benefit of utilizing

both broadband (white) illumination and short wavelength (e.g., blue and green) illumination for a physician and suggests prior medical imaging devices provide such a capability as a broadband spectrum illumination source with associated movable filters. *Id.* at 1:44–59.

The '151 Patent discloses and claims a medical imaging device that uses a single light source for a full spectrum white light imaging mode as well as for short wavelength imaging mode, “but does not to [sic] require the incorporation and movement of filters in the light source to produce the light for the two different imaging modes.” Ex. 1001, 1:66–2:2. Light reflected from a single light source is sensed by a color image sensor, which may be, for example, “an RGB type image sensor having a number of pixels that are covered with a mosaic filter that passes light in the red, green, or blue spectral bands,” (Ex. 1001, 3:41–44) or, for example, “a complimentary color filter mosaic such as a CMYG (cyan, magenta, yellow, and green).” (*Id.* at 4:45–47). An image processor of the '151 Patent reduces a contribution of red illumination, thereby generating a short wavelength false image, by calculating values for display pixels stored in a memory based on sensed values of the color image sensor. *See id.* at 4:8–12, 6:60–7:3, 7:63–66.

Figure 1 of the '151 Patent is reproduced below.

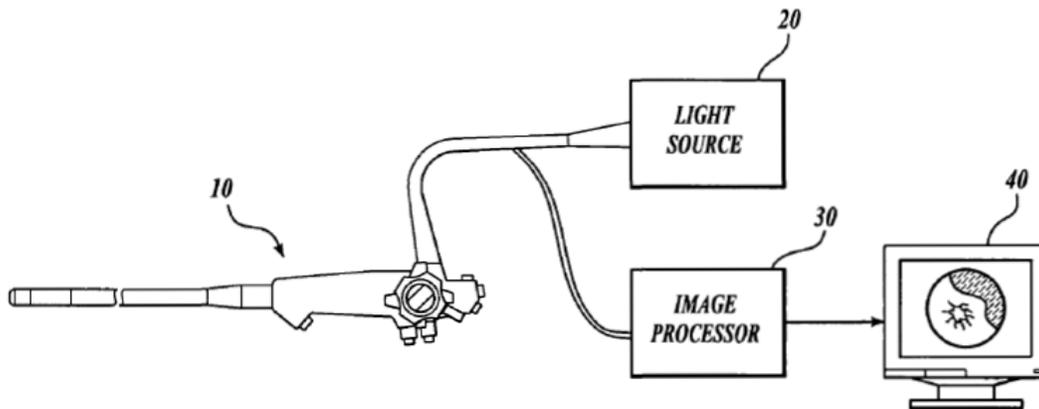


Fig. 1.

Figure 1 of the '151 Patent, reproduced above, discloses an exemplary imaging system in which the subject matter of the '151 Patent may be employed. A single light source 20 illuminates body tissue through scope 10 and reflected light from the illuminated tissue is returned to image processor 30 for presentation on display 40. *See Ex. 1001, 3:14–29.*

Figure 2C of the '151 Patent shows an exemplary embodiment of processing performed within the image processor of Figure 1.

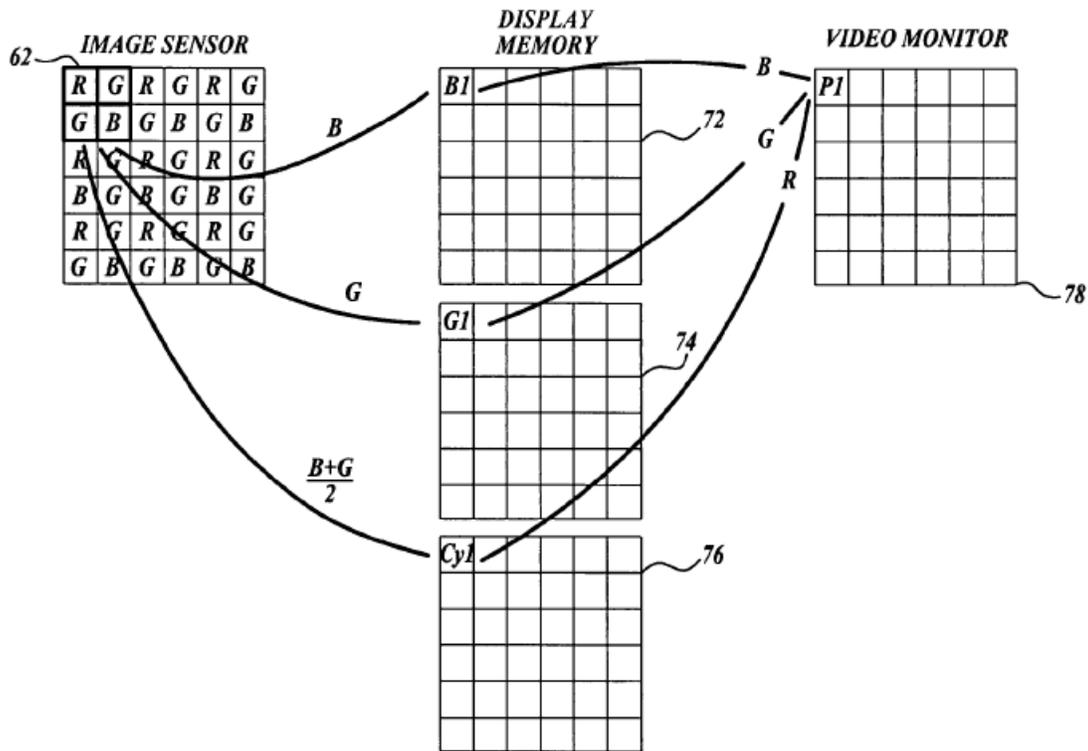


Fig.2C.

Figure 2C of the '151 Patent, reproduced above, shows RGB color image sensor 62 producing RGB signal values used by the image processor to determine (e.g., “calculate”) display pixel values (*B1*, *G1*, *Cy1*) in memory 72, 74, 76 for presentation on display 78 as a pixel with reduced red contribution (*PI*) to generate a short wavelength false image. See Ex. 1001, 4:12–42.

B. Related Matters

Both parties indicate there are no related matters. Pet. 1; Paper 5, 2.

C. Illustrative Claim

Independent claim 1, reproduced below, is exemplary of the invention:

1. A system for producing images of tissue with a medical device that delivers an illumination light to a body cavity and a color image sensor that produces images of the tissue from a number of pixels that are sensitive to different wavelengths of light, comprising:

an image processor coupled to receive signals produced by the color image sensor in response to illumination light reflected from the tissue having red, green, and blue color components, wherein, the image processor calculates image signals that are stored in a memory by minimizing the contribution from signals produced by the image sensor in response to red illumination light.

D. References Applied by Petitioner

Petitioner challenges the patentability of claims 1–17 on the basis of the following items of art:

U.S. Patent No. 4,742,388; May 3, 1988. Ex. 1003 (“Cooper”).
U.S. Patent No. 6,147,705; Nov. 14, 2000. Ex. 1004 (“Krauter”).
U.S. Patent No. 7,050,086 B2; May 23, 2006. Ex. 1006 (“Ozawa”).
U.S. Patent No. 4,885,634; Dec. 5, 1989. Ex. 1007 (“Yabe”).

FICE Brochure. Ex. 1005 (“FICE”).

E. The Alleged Ground of Unpatentability

The Petition sets forth the following grounds of unpatentability as follows:

Claims	Basis for Challenge
1–17	§ 103(a) over Yabe
1, 10, 11, and 13	§ 102(b) over Cooper
1, 7, 10, 12, and 14	§ 102(b) over Krauter

1, 2, 10, and 13	§ 102(a) over FICE
1, 10, 11, 13, and 15–17	§ 102(b) over Ozawa

Petitioner also cites the Declaration of Erhan Gunday (Ex. 1011) as support for the various contentions.

II. ANALYSIS

A. *Printed Publications*

“A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). Petitioner asserts four grounds of unpatentability based on patents and asserts one ground based on FICE (Ex. 1005) as an alleged printed publication. Pet. 48–54. Petitioner contends FICE was published in September 2005, prior to the ’151 Patent filing, and thus is prior art under 35 U.S.C. § 102(a). Pet. 3. Patent Owner argues FICE is not a printed publication. Prelim. Resp. 53–55.

“Public accessibility” is the touchstone in determining whether a reference is a “printed publication.” *In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986); *see also, e.g., L-3 Commc’n Holdings, Inc. v. Power Survey, LLC*, Case IPR2014-00832, slip op. at 11–12 (PTAB Nov. 14, 2014) (Paper 9) (applied reference not shown to be publicly accessible); *C&D Zodiac, Inc. v. B/E Aerospace, Inc.*, Case IPR2014-00727, slip op. at 20–22 (PTAB Oct. 29, 2014) (Paper 15) (applied reference shown to be publicly accessible). “A reference is publicly accessible ‘upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent

that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.” *Kyocera Wireless Corp. v. Int’l Trade Comm’n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008) (quoting *SRI Int’l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008)). The status of a reference as a printed publication is a legal question “based on underlying factual determinations.” *Id.*

[W]hether information is printed, handwritten, or on microfilm or a magnetic disc or tape, etc., the one who wishes to characterize the information, in whatever form it may be, as a “printed publication” . . . should produce sufficient proof of its dissemination or that it has otherwise been available and accessible to persons concerned with the art to which the document relates and thus most likely to avail themselves of its contents.

In re Wyer, 655 F.2d 221, 227 (CCPA 1981) (citing *Philips Elec. & Pharm. Indus. Corp. v. Thermal & Elec. Indus., Inc.*, 450 F.2d 1164, 1171 (3d Cir. 1971)).

After considering all relevant evidence and arguments, we agree with Patent Owner that Petitioner has provided insufficient evidence to meet its burden of showing that FICE was indeed published, as alleged, in September 2005. As noted by Patent Owner (Prelim. Resp. 54), assuming Petitioner relies on the markings on the final page of FICE (“FICE 2005 – 09 – BR-3000”), there is insufficient evidence that these markings relate to any date — let alone the date of publication of the FICE brochure. Furthermore, Petitioner fails to provide any evidence, other than the brochure itself, that the FICE brochure was publicly accessible — i.e., that the brochure was disseminated or otherwise made available such that an interested person could locate it.

In view of the above discussion, we are not persuaded that Petitioner has met its burden of showing that FICE is a printed publication.

B. Claim Construction

As a step in our analysis for determining whether to institute a review, we may determine the meaning of the claims for purposes of this Decision. In an *inter partes* review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. 37 C.F.R. § 42.100(b); *see In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 890 (mem.) (2016) (“We conclude that Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA.”). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Image Sensor

Independent claim 1 recites, “a color image sensor that produces images of the tissue from a number of pixels that are sensitive to different wavelengths of light.” Independent claim 10 similarly recites, “an image sensor that receives reflected light from the tissue sample, the image sensor having a number of pixels sensitive to different wavelengths of light and which generate image signals in response to the light received from the tissue sample.”

Petitioner proposes the broadest reasonable interpretation of “color image sensor” or “image sensor” is: “an arrangement comprising an image sensor and at least one color filter, where the image sensor’s pixels receive light that passes through the color filter.” Pet. 12 (emphasis omitted). Petitioner contends this construction is consistent with the claims and encompasses several types of sensors known in the art at the time of the ’151 Patent. Pet. 13. In particular, Petitioner’s proposed construction encompasses “RGB (rotary filter) sensors.” *Id.* Petitioner next argues the specification does not narrow the construction of the term but, instead, merely provides examples of known color image sensors including a CMYG color image sensor and an RGB color image sensor. *Id.*

Patent Owner argues Petitioner’s proposed construction is unreasonably broad and, in particular, is inconsistent with the specification, which specifically distinguishes previously known apparatus that use movable filters which cause the same color light to fall on every pixel of the image sensor. Prelim. Resp. 8–10 (citing Ex. 1001, 1:44–59, 1:63–2:1). Furthermore, Patent Owner argues Petitioner’s proposed construction is inconsistent with the claim, *per se*, requiring that the sensor “produce images from, or have, a number of pixels that are sensitive to different wavelengths of light.” Prelim. Resp. 10. Patent Owner contends this is only possible if the image sensor has at least two different color filters on its surface. *Id.*

“[A] claim construction analysis must begin and remain centered on the claim language itself.” *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004). “Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim

limitations that are not a part of the claim.” *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). The express language of independent claims 1 and 10 makes clear that an image sensor must have or use a plurality of pixels that respond to different wavelengths of light. The exemplary embodiments of the ’151 Patent are consistent with that claim language, in that the specification discusses the use of an “RGB color image sensor having pixels that are sensitive to red, green, and blue light” (Ex. 1001, 2:9–10) and “a CMYG color image sensor . . . [having] pixels that are sensitive to complementary colors (cyan, magenta, yellow, and green)” (*id.* at 2:20–23). Both these exemplary sensor embodiments utilize mosaic filters coupled with the sensors such that each pixel has an associated filter determining the wavelengths of light incident upon the corresponding pixel, and at least two of those filters have different spectral bands/colors that are passed. *Id.* at 3:40–44, 4:43–47. Thus, for a construction of “image sensor” to be consistent with the claims and the specification, we are persuaded that the construction must be limited to sensors having a plurality of pixels, at least some of which are sensitive to different wavelengths of light (i.e., different colors) than at least some of the other pixels, such as by use of a mosaic filter in front of a CCD sensor array.

By implication, we are persuaded that a proper construction consistent with the claims and the specification would exclude a sensor structure in which all pixels of the sensor respond to the same wavelengths of light. For example, the admitted prior art techniques identified in the specification (Ex. 1001, 1:44-59) provide that moving filters that pass a single color at a time are placed in front of the light source such that the color of reflected light is incident upon each pixel of the sensor (i.e., a CCD sensor). Thus, in such

admitted prior art techniques, each pixel of such a sensor is sensitive to the same wavelength, which is typically any photon or “white” light, but is in any case a monochromatic reflected light that is based on the spectral band of the movable filter presently positioned in the path between the tissue sample and the illumination source.

Thus, we are persuaded that Petitioner’s proposed construction is unreasonably broad by encompassing a sensor structure using only a rotary filter (RGB filter or otherwise) placed in front of the illumination source such that all pixels of the image sensor are sensitive to the same wavelength of reflected light (e.g., white light as modified by any selected filter moved into the path of the light source).

On this record, and for purposes of this Decision, we find an *image sensor* as recited in the claims is a device that senses incident light on a plurality of pixels, at least two of which are sensitive to different wavelengths of incident light.

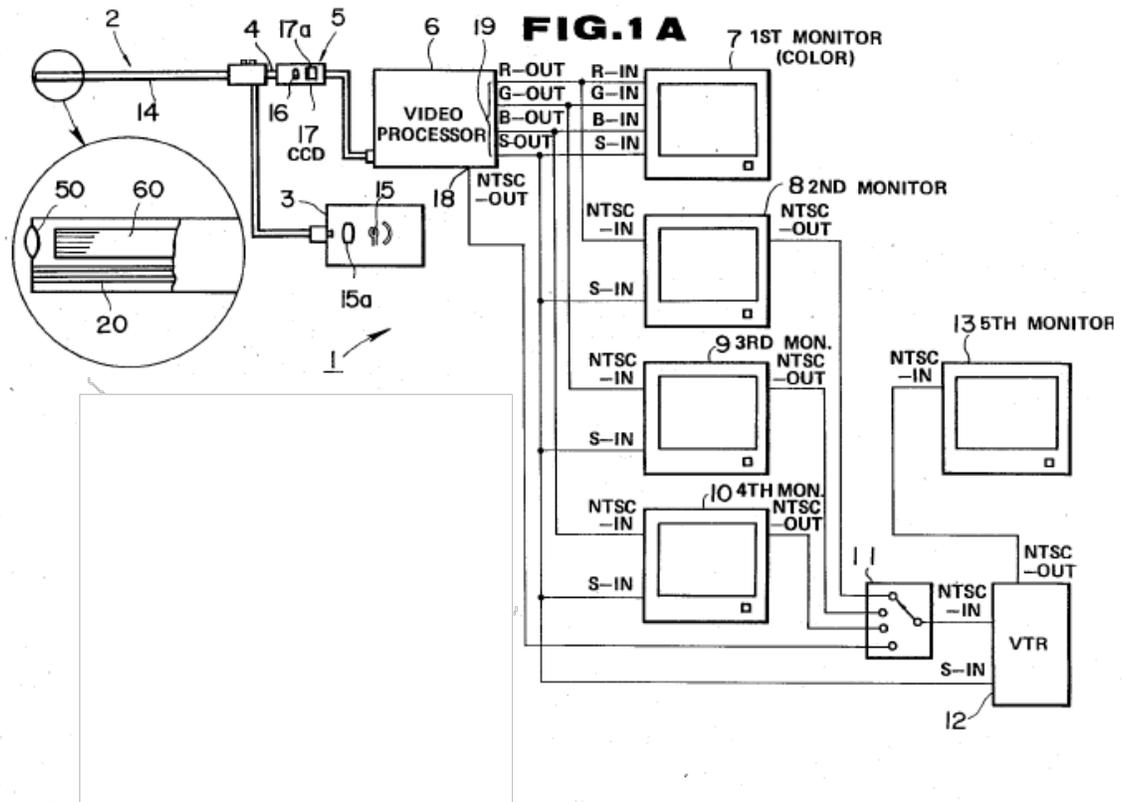
Petitioner provides further interpretations of “RGB sensor” and “CMYG sensor.” Pet. 14–15. In view of our construction of *image sensor*, *supra*, for purposes of this Decision, we construe an *RGB sensor* as an image sensor having one or more pixels that are sensitive to red light, one or more pixels that are sensitive to green light, and one or more pixels that are sensitive to blue light. In like manner, for purposes of this Decision, we construe a *CMYG sensor* as an image sensor having one or more pixels that are sensitive to cyan light, one or more pixels that are sensitive to magenta light, one or more pixels that are sensitive to yellow light, and one or more pixels that are sensitive to green light.

Other Claim Terms

Patent Owner proposes construction of several additional terms. Prelim. Resp. 15–22. For the purposes of this Decision, however, and at this juncture, we determine that it is unnecessary to explicitly construe any other claim terms.

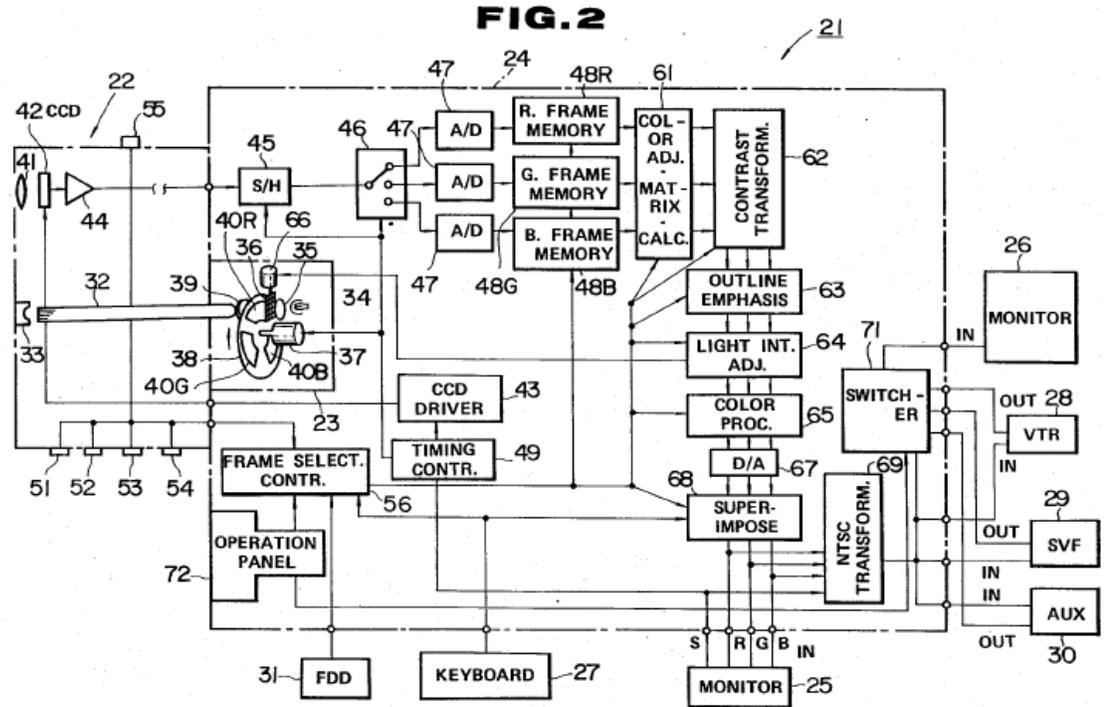
C. Claims 1–17 Obvious over Yabe

Yabe discloses two embodiments of an endoscope imaging device. Yabe’s first embodiment (Ex. 1007, Fig. 1A) is depicted as follows:



Yabe Figure 1A, reproduced above, shows medical imaging device 1 having white light source apparatus 3 illuminating tissue, the illuminations reflected back to camera head 5 having CCD image sensor 17 with mosaic filter 17a attached thereto.

The second embodiment of Yabe (Ex. 1007, Fig. 2) discloses a medical imaging device as follows:



Yabe Figure 2 reproduced above is a block diagram of medical imaging device 32 using light source section 23 that includes rotary filter 38 to generate colored light that reflects back to CCD sensor 42. *See* Pet. 16–17.

As discussed *supra*, in the structure of this second embodiment, CCD sensor 42 does not fall within the scope of our above construction of the recited *image sensor*, i.e., it is not a device that senses incident light on a plurality of pixels, *at least two of which are sensitive to different wavelengths of incident light*. Instead, all pixels of CCD sensor 42 respond to the same wavelength of light generated by the light source through rotating filter 38, as all the light falling on all the pixels passes through only one filter passing only one color at a time. Petitioner, however, proposes to address this potential deficiency of one embodiment of Yabe by combining

features of the aforementioned two embodiments. Pet. 19–20. Specifically, Petitioner argues that the ordinarily skilled artisan would combine the mosaic filter CCD structure of Yabe’s first embodiment (17/17a) with the endoscope of Yabe’s second embodiment, contending “[i]t would be obvious to try the ‘image pickup means’ of Yabe’s first embodiment in the Yabe’s second embodiment because it would serve the same purpose as the existing rotary filter/CCD arrangement and lead to predictable results (i.e. the generation of red, blue, and green image signals).” Pet. 20.

Petitioner maps further recitations of claim 1 to features of Yabe’s endoscope (Pet. 16–20). In particular, Petitioner argues Yabe teaches calculating image signals that are stored in a memory as values that are stored in “a still video floppy apparatus (SVF) for picking up images, and other recording devices (AUX) 30 for recording/reproducing the composite video signals input to said monitor 26; and a floppy disk drive apparatus (FDD) 31.” Pet. 19 (citing Ex. 1007, Fig. 2 17:37–42; Gunday ¶ 127).

Patent Owner argues Petitioner fails to show Yabe teaches the claimed image sensor. Prelim. Resp. 23–25. Patent Owner’s argument addresses Yabe’s second embodiment. Patent Owner’s arguments are misplaced, however, as they do not address Petitioner’s proposed modification of Yabe to combine the image sensor of Yabe’s first embodiment with the endoscope of Yabe’s second embodiment.

Patent Owner further argues the SVF/floppy disk, cited by Petitioner as the recited memory into which calculated image signals are stored, “are separate accessory devices that are not part of Yabe’s ‘video processor 24,’ and therefore are not a memory as claimed in the ’151 patent.” Prelim. Resp. 26–27. We disagree. Nothing in claim 1 requires a particular type of

memory for storing the calculated image signals nor a particular location for such a memory.

Patent Owner further argues Petitioner fails to show Yabe teaches the calculation of image signals recited in claim 1, because the various modes of operation of Yabe's devices do not determine cyan signal values. Prelim. Resp. 27–28. Even assuming, *arguendo*, Patent Owner's contentions regarding the calculations of Yabe are correct and cyan signals are not generated, Patent Owner's contentions are misplaced, as nothing in claim 1 requires any particular calculation be performed other than “minimizing the contribution from signals produced by the image sensor in response to red illumination light.” In other words, claim 1 does not require a particular calculation that produces a cyan signal but, instead, requires only that the calculation minimize contributions from the image sensor pixels responsive to red illumination.

Patent Owner further contends Petitioner has failed to show Yabe teaches the recited calculation, because Yabe eliminates the red contributions to the calculations (“setting the red output to zero”) rather than reducing it as claimed. Prelim. Resp. 29. Patent Owner's contentions are again misplaced because, as set forth above, claim 1 does not require any particular technique for minimizing the contribution of sensed red illumination in the recited calculations and, thus, any technique to reduce the red contributions, including eliminating it, is within the scope of claim 1.

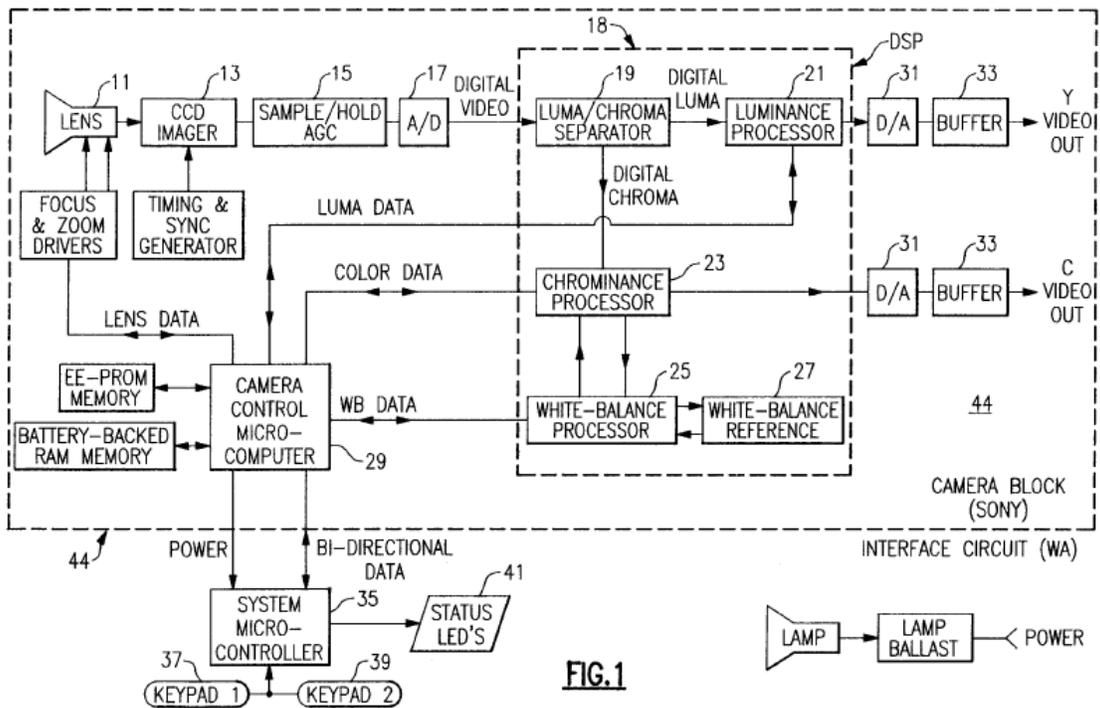
Thus, on this record and for purposes of this Decision, we are persuaded Petitioner has established a reasonable likelihood of prevailing in showing claim 1 is obvious over Yabe.

Independent claim 10 recites limitations commensurate with those of claim 1 and the arguments of the parties are similar (Pet. 30–33; Prelim. Resp. 39–42). Therefore, on this record and for purposes of this Decision, we are persuaded Petitioner has established a reasonable likelihood of prevailing in showing independent claim 10 is obvious over Yabe.

Petitioner provides a mapping of the recitations of dependent claims 2–9 and 11–17 to teachings of Yabe. Pet. 20–29, 33–38. We have reviewed Patent Owner’s response regarding these dependent claims. Prelim. Resp. 29–39, 42–44. On this record and for purposes of this Decision, we are persuaded Petitioner has established a reasonable likelihood of prevailing in showing dependent claims 2–9 and 11–17 are obvious over Yabe.

D. Claims 1, 7, 10, 12, and 14 Anticipated by Krauter

Krauter discloses a medical imaging device (colposcope) as follows:



Krauter's Figure 1 reproduced above, discloses a device that includes a light source (lamp and lamp ballast) to illuminate tissue, CCD image sensor 13, digital signal processor 18 ("DSP") that performs calculations on illumination sensed by sensor 13, and buffers 33 for storing the calculated image signals.

Petitioner maps recitation of claims 1, 7, 10, 12, and 14 to teachings of Krauter. Pet. 43–48. In particular, Petitioner contends Krauter's CCD sensor is a complementary color ("CMYG") sensor having a plurality of pixels sensitive to different wavelengths of light. Pet. 43 (citing Ex. 1004, 4:12–17, 5:53–55, 6:19–28, Fig. 1; Ex. 1011, ¶ 257). According to Petitioner, Krauter's DSP separates signals from the CMYG CCD into luminance and chrominance values and further calculates red, green, and blue signal values from the luminance and chrominance values. Pet. 44. Furthermore, Petitioner argues Krauter's DSP performs calculations in generating the red, green, and blue values to implement a "normal" mode and a "green filter" mode:

Krauter's colposcope has two modes of operation: "normal" and "green filter," where "green filter" refers to "images obtained primarily by reducing the amount of red found in the actual image so as to offset the problems of vascular discrimination." (Ex. 1009 at 4; Ex. 1004 at 4:7-10.) In the "green filter" mode, Krauter's DSP calculates image signals where the red portion of light is decreased or suppressed. (Ex. 1004 at Abstract, 1:11-19, 4:66-67, 2:61-67, 2:67-3:6, 4:66 – 5:5, 5:5-14, 5:15-52, Fig. 1; Gunday at ¶¶260-63, 265.)

Pet. 44. Lastly, Petitioner contends the generated output signals are stored in buffers 33.

Patent Owner argues Krauter is limited to "reduction of the amplitude of at least one of the three 'color primaries': red, green, and blue" and

contends “[n]owhere does Krauter teach or suggest creating a separate cyan signal from blue and green signals. The result of Krauter’s coefficient manipulation is a decreased red video output signal and possibly modified blue and green output signals, not blue, green, and cyan signals as required by claim 1.” Prelim. Resp. 50. As addressed above, however, we disagree that claim 1 requires generation of a cyan color signal. The only calculation required by claim 1 is “minimizing the contribution from signals produced by the image sensor in response to red illumination light.”

Thus, on this record and for purposes of this Decision, we are persuaded Petitioner has established a reasonable likelihood of prevailing in showing claim 1 is anticipated by Krauter.

Independent claim 10 recites limitations commensurate with those of claim 1 and the arguments of the parties are similar (Pet. 46–47; Prelim. Resp. 52). Therefore, on this record and for purposes of this Decision, we are persuaded Petitioner has established a reasonable likelihood of prevailing in showing claim 10 is anticipated by Krauter.

Petitioner provides a mapping of the recitations of dependent claims 7, 12, and 14 to teachings of Krauter. Pet. 45, 47, 48. We have reviewed Patent Owner’s response regarding these dependent claims. Prelim. Resp. 52. On this record and for purposes of this Decision, we are persuaded Petitioner has established a reasonable likelihood of prevailing in showing dependent claims 7, 12, and 14 are anticipated by Krauter.

E. Claims 1, 10, 11, and 13 Anticipated by Cooper

Cooper discloses an endoscope system for medical imaging. Pet. 38 (citing Ex. 1003, 1:6–9); *see also* Ex. 1003, Fig. 1. Petitioner argues Cooper

discloses the recited image sensor as comprising color wheel 40 with a solid state image sensor. *Id.* (citing Ex. 1003, Abstract, 4:1–6, 4:39–43, Fig. 2 (item 72)). Petitioner explains, “[t]he solid state image sensor has ‘active light-responsive elements’ (i.e. pixels) ‘for receiving the reflected image from the cavity and generating sequential electrical signals corresponding to the sequential color fields of light.’ (Ex. 1003 at 2:3-11, 4:39-5:44; *see also id.* at 6:2-6, 6:22-7:40; Gunday at ¶¶230-31.)” Pet. 39. In other words, the illumination source is applied through rotating filter 40 passing only a single color at a time, and sensor 72 senses that monochromatic light reflected off the tissue. Thus, Petitioner has not shown that Cooper’s sensor is an image sensor as we have construed the term — a device that senses incident light on a plurality of pixels, at least two of which are sensitive to different wavelengths of incident light. Petitioner has not persuaded us that Cooper’s sensor has a plurality of pixels *at least two of which are sensitive to different wavelengths of incident light.*

Thus, we are not persuaded there is a reasonable likelihood the Petitioner would prevail in showing at least one of claims 1, 10, 11, and 13 is anticipated by Cooper and we, therefore, *deny* institution of *inter partes* review of claims 1, 10, 11, and 13 based on Cooper.

F. Claims 1, 2, 10, and 13 Anticipated by FICE

As discussed *supra*, Petitioner has failed to meet its burden of showing that FICE is a printed publication under 35 U.S.C. § 311(b) and, thus, we *deny* institution of *inter partes* review of claims 1, 2, 10, and 13 based on FICE.

G. Claims 1, 10, 11, 13, and 15–17 Anticipated by Ozawa

Ozawa discloses an endoscope system for medical imaging. Pet. 54 (citing Ex. 1006, 1:6–9, 8:38–53); *see also* Ex. 1006, Fig. 1. Petitioner argues, “[r]eflected light from the illuminated object is focused on Ozawa’s color image sensor, which is a CCD image sensor at the distal end of the endoscope arranged with a rotary RGB color-filter. (Ex. 1006 at 8:16-19, 8:24-53, 8:62-9:3, 11:4-58, Fig. 1; Gunday at ¶¶329.)” Pet. 54. As above regarding Cooper, Ozawa’s white lamp (Ex. 1006, Fig. 1 (item 24)) shines through a rotating filter that passes only a single color at a time (Ex. 1006, Fig. 1 (item 30)) and the CCD sensor (Ex. 1006, Fig. 1 (item 18)) senses that reflected monochromatic light off the tissue. Thus, Petitioner has not shown that Ozawa’s sensor is an image sensor as we have construed the term — a device that senses incident light on a plurality of pixels, at least two of which are sensitive to different wavelengths of incident light. Petitioner has not persuaded us that Ozawa’s sensor has a plurality of pixels *at least two of which are sensitive to different wavelengths of incident light*.

Thus, we are not persuaded there is a reasonable likelihood the Petitioner would prevail with respect to claims 1, 10, 11, 13, and 15–17 as anticipated by Ozawa and we, therefore, *deny* institution of *inter partes* review of claims 1, 10, 11, 13, and 15–17 based on Ozawa.

H. Conclusion

On this record, we are persuaded that there is a reasonable likelihood that Petitioner would prevail in showing that claims 1–17 of the ’151 Patent are unpatentable. The Board has not made a final determination concerning patentability of any of the challenged claims.

III. ORDERS

After due consideration of the record before us, and for the foregoing reasons, it is:

ORDERED that pursuant to 35 U.S.C. § 314, an *inter partes* review is hereby instituted as to claims 1–17 of the '151 Patent under 35 U.S.C. § 103(a) as obvious over Yabe.

FURTHER ORDERED that pursuant to 35 U.S.C. § 314, an *inter partes* review is hereby instituted as to claims 1, 7, 10, 12, and 14 of the '151 Patent under 35 U.S.C. § 102(b) as anticipated by Krauter.

FURTHER ORDERED that the trial is limited to the grounds of unpatentability listed above, and no other grounds of unpatentability are authorized for *inter partes* review; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '151 Patent is hereby instituted commencing on the entry date of this Order, and 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.

IPR2015-01847
Patent 7,420,151 B2

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