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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* Collect, LLC  
Patent Owner and Appellant

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Appeal 2021-004967  
Reexamination Control 90/014,452  
Patent 6,982,740 B2  
Technology Center 3900

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Before JAMESON LEE, ALLEN R. MacDONALD, and  
MICHAEL J. ENGLE, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(b) and 306, Collect, LLC (Appellant)<sup>1</sup> appeals from the final rejection of claims 1 and 2. Patent claims 3–12, 14, and 15 are not subject to reexamination. Final Act. 19 (PTOL-466). Appellant has cancelled claim 13. February 24, 2021 Response 2. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

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<sup>1</sup> Appellant identifies the real party in interest as Collect LLC, a wholly owned subsidiary of Micro Imaging Solutions LLC. Appeal Br. 2.

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### CLAIMED SUBJECT MATTER

Claims 1 and 2 are the sole claims on appeal (emphasis, formatting, and bracketed material added):

1. A reduced area imaging device comprising:
  - [A.] an image sensor lying in a first plane and including an array of pixels for receiving images thereon,
    - [A.i.] said image sensor further including circuitry means on said first plane and coupled to said array of pixels for timing and control of said array of pixels,
    - [A.ii.] said image sensor producing a pre-video signal;
  - [B.] a first circuit board lying in a second plane and communicating with said image sensor by at least one pre-video conductor inner-connecting said image sensor and said first circuit board,
    - [B.i.] said first circuit board including circuitry means for converting said pre-video signal to a post-video signal for reception by a standard video device;
  - [C.] a power supply[:]
    - [C.i.] coupled with said image sensor for driving said array of pixels and said timing and control means, and
    - [C.ii.] electrically coupled to said first circuit board for driving said first circuit board; and
  - [D.] *a time select switch*[:]
    - [D.i.] *electrically communicating* with said first circuit board and
    - [D.ii.] remote from said first circuit board *for selectively varying integration periods* to produce an image of a desired brightness,
    - [D.iii.] said switch having a plurality of settings *enabling selective control* to produce the image of a desired brightness.

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2. A device, as claimed in claim 1, wherein:

[A.iii.] said array of pixels *includes* an array of CMOS pixels.

## REJECTION<sup>2</sup>

The Examiner rejects claims 1 and 2 on the ground of nonstatutory (obviousness type) double patenting (OTDP) as being unpatentable over claim 1 of U.S. Patent No. 6,043,839 to Adair et al. (hereinafter “Adair ’839”) in view of Japanese Patent Publication No. JPH07275198 to Tomoyasu et al. (hereinafter “Tomoyasu”). Final Act. 11–14.

Separate patentability, in compliance with 37 C.F.R. § 41.37(c)(iv), is not argued for claim 2 (“Under each heading identifying the ground of rejection being contested, any claim(s) argued separately or as a subgroup

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<sup>2</sup> Although the Examiner’s Final Action includes claim 13, Appellant points out:

[T]he *First Advisory Action* initially withdrew the rejections of Claims 1 and 2 of the ’740 Patent. . . . After receiving the *First Advisory Action*, **Patent Owner cancelled Claim 13** in order to expedite issuance of an *Ex Parte* Reexamination Certificate for the ’740 Patent. However, . . . the Examiner reversed course, applying a different construction and reinstated the rejection of Claims 1 and 2 in the *Second Advisory Action*.

Appeal Br. 9 (emphasis added). To the extent that Appellant is concerned that the reinstated rejection in the *Second Advisory Action* is now an undesignated new ground of rejection, such an issue is a matter for petition to the Director under 37 C.F.R. § 1.181 and is not appealable to this Board—similar to 37 C.F.R. § 41.40(a) covering examiner’s answers:

Any request to seek review of the primary examiner’s failure to designate a rejection as a new ground of rejection in an examiner’s answer must be by way of a petition to the Director under § 1.181 of this title.

37 C.F.R. § 41.40(a).

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shall be argued under a separate subheading that identifies the claim(s) by number.”). Therefore, we select claim 1 as the representative claim for the OTDP rejection of claims 1 and 2. Except for our ultimate decision, we do not address the merits of OTDP rejection of claim 2 further herein.<sup>3</sup>

## OPINION

We have reviewed the Examiner’s rejections in light of Appellant’s arguments (Appeal Brief and Reply Brief) that the Examiner has erred. We disagree with Appellant’s conclusions. Except as noted below, we adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner’s Answer in response to Appellant’s Appeal Brief. We concur with the conclusions reached by the Examiner as to the OTDP rejection of claim 1.

### A. FIRST ARGUMENT

Appellant raises the following claim construction argument in contending that the Examiner erred in rejecting claim 1 based on OTDP. Appellant argues the Specification of the patent under reexamination

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<sup>3</sup> Even if we were to consider Appellant’s sole claim 2 argument at page 9 of the Appeal Brief, the argument misinterprets claim 2. Contrary to the argument, claim 2 is not “explicitly limited to CMOS image sensors.” Rather, claim 2 requires “said array of pixels *includes* an array of CMOS pixels.” Emphasis added. Contrary to Appellant’s assertion that this is “an issue not addressed by the Examiner’s Answer” (Reply Br. 6), the Examiner correctly concludes that claim 2 “doesn’t say only CMOS pixels are included.” Ans. 5. Claim 2 merely requires the array of pixels of claim 1 now include an array of CMOS pixels as part of array of claim 1. We conclude that nothing in claim 2 requires that the array of claim 1 is now limited to only CMOS pixels.

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expressly teaches away from (disparages) Tomoyasu's charge coupled device (CCD) image sensor. Appeal Br. 7–9; Reply Br. 2–6.

#### A.1. First Argument – Question of Law

Although Appellant and the Examiner (Final Act. 4) use the phrase “teaches away” to describe the “disparagement” issue being argued, we do not find the phrase to be a proper characterization of the “disparagement” issue before us. A “teaches away” determination is a determination as to the teaching of a prior art reference. “What a reference teaches is a question of fact.” *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992).

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.

*In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

The “disparagement” issue argued by Appellant concerns claim construction in light of Appellant's Specification. For claim construction, “when the . . . court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the judge's determination will amount solely to a determination of law.” *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 320 (2015). “The ultimate construction of a claim term is a legal conclusion.” *UltimatePointer, L.L.C. v. Nintendo Co., Ltd.*, 816 F.3d 816, 822 (Fed. Cir. 2016).

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To the extent that Appellant argues “teaching away” as a factual finding, we treat it as arguing “disparagement” by Appellant’s Specification as a legal conclusion as part of claim construction.

#### A.2. First Argument – Appellant’s Contentions

In arguing that the Specification of the patent under reexamination disparages against selectively varying the integration period of a charge coupled device (CCD) such as Tomoyasu’s image sensor, Appellant presents the following contentions.

##### A.2.a. First Argument – Contention 1

Although the Examiner recognizes there is a distinction between CCD image sensors and CMOS-CID image sensors, the Examiner incorrectly states that the Specification does not teach away from<sup>[4]</sup> using a CCD image sensors described in Tomoyasu. *Final Office Action* at 3–4. This analysis, however, is demonstrably false, as illustrated above, and legally wrong. *See UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816, 823 (Fed. Cir. 2016) (finding<sup>[5]</sup> that the scope of a limitation was narrowed where the patent owner ***repeatedly disparaged and criticized*** a feature in contrast to the claimed invention).

Appeal Br. 8 (additional emphasis added).

[T]he Specification explains that a CCD image sensor, like the one used in Tomoyasu, cannot vary the integration period to produce an image of a desired brightness because a CCD image sensor uses a fundamentally different (*i.e.*, ***destructive***) ***readout*** mechanism compared to CMOS-CID image sensors. ’740 Patent at 5:44–54. . . .

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<sup>4</sup> For purposes of this appeal, we treat this “teach away from” as reading “disparage.”

<sup>5</sup> For purposes of this appeal, we treat this “finding” as reading “concluding.”

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The '740 Patent further describes how CCD image sensors do not work for the claim charge integration period feature:

While the imager may be used within an endoscopic instrument, it is also contemplated that the image sensor may be incorporated within a microscope, or another imaging device which is used to view cell cultures and the like. *Most* commonly available fluorescence microscopes include *CCD type imagers which are not capable of the variable charge integration*. CCD imagers are charge storage and transfer devices wherein the detector signal produced is representative of the total light impinging or falling upon the pixel array during a *preset* exposure time. *Because of the construction of CCD devices, these exposure times cannot be manipulated for charge integration because CCD imagers have destructive readout*. In other words, each charge is read by transferring the collected charge in each pixel in a serial fashion to a readout amplifier.

'740 Patent at 5:35–49 (emphasis added).

Appeal Br. 7–8 (additional emphasis added).

The Examiner's Answer also relies on the hybrid CMOS/CCD image sensor in the "Background Art" section of the '740 Patent specification to support the position that Claim 1 covers a CCD image sensor. Examiner's Answer at 5. Here again, this argument misses the mark. The hybrid CMOS/CCD image sensor described in the '740 Patent is part of a common specification in a family of patents owned by Patent Owner and is directed towards another aspect of Patent Owner's invention which is not claimed by the '740 Patent.

Reply Br. 5.



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A.2.b. First Argument – Contention 2

In response to rejection based on Tomoyasu, Patent Owner contrasted this operation of a CCD sensor with the operation of a CMOS or CID sensor. *Response to Office Action* at 6–7; *Response after Final Office* at 2–6 (“In contrast to CCD image sensors which have **a set predetermined integration period (i.e., it cannot be varied once readout)**, CMOS-CID image sensors permit **real time monitoring (continual readout)** of the image during the charge integration time period, allowing the charge integration period to continue to collect photons, thus varying the integration period to produce an image with a desired brightness.” (citing ’740 Patent at 5:35–49)).

Appeal Br. 8 (additional emphasis added).

Tomoyasu’s CCD imager has a destructive readout which is **incapable of real time readout**. However, the claims require that the desired brightness be obtained within “an image” and thus **require real-time readout** possible with a CMOS or CID image sensor, and not adjustment over a series of separate images that would be required using a CCD image sensor.

Reply Br. 2 (emphasis added).

[T]he Examiner’s Answer seeks to ignore the claim language and the express description in the specification by arguing that “the claims do not recite **‘real time monitoring (or continual readout)** of the image during the charge integration time.[’]” That argument misses the mark as that “real-time monitoring” or “continual readout” feature is precisely how a POSITA understands the image sensor and time select switch terms in claims 1 and 2.

Reply Br. 4 (emphasis added).

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### A.3. First Argument – Panel’s Analysis

We are unpersuaded by Appellant’s argument.

#### A.3.a. First Argument – Contention 1 – Panel’s Analysis

As to Appellant’s contention that the Specification disparages and criticizes charge couples device (CCD) image sensors to the point that claim 1 must be read as limited to complementary metal oxide semiconductors-charge injection device (CMOS-CID) image sensors, we disagree. Appellant correctly cites *UltimatePointer*, 816 F.3d 816 as a leading case for claim construction based on disparagement. Appeal Br. 8. However, as an initial matter, Appellant’s argument fails because it has not even identified which specific claim limitation should be limited to exclude a CCD.

More importantly, we do not find the patent in the instant appeal to contain the “repeated derogatory statements” (*id.*, 816 F.3d at 822 (citation omitted)) underpinning the claim construction in *UltimatePointer*. For example, the Federal Circuit emphasized the repeated derogatory statements in *UltimatePointer* as follows:

We agree with Nintendo that the district court did not err in construing “handheld device” as “handheld direct pointing device.” The *specification repeatedly emphasizes* that the invention is directed to a direct-pointing system. ***The title of the invention explicitly states*** that the invention is an “Easily–Deployable Interactive *Direct Pointing* System . . .” (emphasis added). See *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1557 (Fed. Cir. 1995) (using patent title to inform claim construction). ***The specification also repeatedly emphasizes*** that the system is for interacting with a presentation in a “direct-pointing” manner, ’729 patent, col. 14 ll. 25–28, 33–

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36, 46–49; col. 15 ll. 3–6; col. 20 ll. 32–35, and even describes the handheld device as a “direct-pointing device,” *id.* col. 24 ll. 45–46, 51–53; col. 31 ll. 21–24.

***The written description also emphasizes*** how direct pointing is superior to indirect pointing. In the “Background of the Invention,” the patentee notes that “pointing devices may be classified” as either direct or indirect-pointing devices, *id.* col. 1 ll. 58–60, and that “[i]t needs no argument that direct-pointing systems are more natural to humans, allowing faster and more accurate pointing actions,” *id.* col. 2 ll. 1–3.

***The written description further disparages*** indirect pointing. For example, indirect pointing ***is criticized*** as “less natural” than direct pointing, *id.* col. 2 ll. 35–36, and as not providing “the speed and intuitiveness afforded by direct-pointing systems,” *id.* col. 2 ll. 41–43. ***Even a prior art hybrid system***, using both direct and indirect pointing, ***is criticized*** as not “afford[ing] the fast and more accurate interactive pointing actions provided by some other direct-pointing systems,” *id.* col. 4 ll. 52–54, and another hybrid system is criticized for not providing “the desired flexibility afforded by truly direct-pointing methods,” *id.* col. 5 ll. 1–3. Although the '729 patent does include one embodiment where the handheld device “may include a conventional, indirect pointing device,” indirect pointing is only used “where direct pointing is not possible or not desired,” *id.* col. 30 ll. 23–26, thus even ***further disparaging*** indirect pointing.

Taken together, the repeated description of the invention as a direct-pointing system, the ***repeated extolling*** of the virtues of direct pointing, and the ***repeated criticism*** of indirect pointing clearly point to the conclusion that the “handheld device” in claims 1, 3, 5, 6, and 12 is limited to a direct-pointing device.

*UltimatePointer*, 816 F.3d at 823 (emphasis added). Based on the repeated derogatory statements, the court concluded that “the ordinary meaning of ‘handheld device,’ when read in the specific context of the specification of

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the '729 patent, is limited to a direct-pointing device.” *UltimatePointer*, 816 F.3d at 824.

Appellant contends varying the integration periods in claim 1 must be read as limited to CMOS-CID image sensors. However, our review of the patent in the instant appeal finds that the title of the invention explicitly states “utilizing selected charge integration periods,” but it is silent as to any particular type of image sensor. Also, we find that the Abstract similarly states an “imaging device is provided which utilizes selected charge integration periods” (i.e., the invention requires selected charge integration periods). The Abstract mentions, but does not similarly require, a CMOS-CID device (“[t]he imaging device *can be* defined as a CMOS-CID device”) (emphasis added).

Further, the Specification repeatedly discusses the importance of utilizing selected charge integration periods without tying the selected charge integration periods to a CMOS-CID device. At column 4, line 65, through column 5, line 27, the Specification introduces four embodiments, none of which include either (a) selected charge integration periods or (b) a CMOS-CID device. Then, without mentioning a CMOS-CID device, the Specification adds four more embodiments by stating:

For each of the embodiments, *selected charge integration periods may be used* to enhance the image to a desired brightness or intensity. Particularly in the field of medical fluorescence detection, the ability to adjust charge integration periods greatly enhances the ability to observe fluorescence from a group of cells which might otherwise be unobservable with normal or preset integration periods.

Spec. column 5, lines 28–34 (emphasis added).

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In addition to use of the imaging device in endoscopy, it is also contemplated that the imaging device of the invention can be incorporated within a microscope which may be used to analyze cell cultures and the like. Although size is not as much of a concern with use of the imaging device within a microscope, there are still great advantages to be obtained by *providing the imaging device with selected charge integration periods* to intensify the brightness of an image in fluorescence detection of cell culture media which has no observable fluorescence as observed under standard integration periods.

Spec. column 7, lines 20–30 (emphasis added).

The Specification at column 5, lines 35–49, discusses the limitations of certain CCD imagers in a certain context. However, contrary to Appellant’s contention quoting this portion of the Specification (Appeal Br. 7–8), this portion is not a disparagement of all CCD imagers in all contexts. Particularly, the Specification states that “[m]ost commonly available fluorescence microscopes include CCD type imagers which are not capable of the variable charge integration.” Claim 1 is not limited to such fluorescence microscopes, but rather is directed more broadly to “[a] reduced area imaging device.”

Also, we find Appellant’s reading of column 5, lines 41–47 of the Specification to be strained. That portion of the Specification states:

CCD imagers are charge storage and transfer devices wherein the detector signal produced is representative of the total light impinging or falling upon the pixel array during a *preset exposure time*. *Because of the construction of CCD devices, these exposure times cannot be manipulated for charge integration because CCD imagers have destructive readout.*

Spec. column 5, lines 41–47 (emphasis added). While Appellant focuses on the second sentence above and reads this as saying any CCD imager having

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destructive readout (the typical construction) cannot include variable charge integration periods, we read the two sentences together as saying any CCD imager having a construction including a preset exposure time and having destructive readout cannot include variable charge integration periods. Contrary to Appellant's argument, it is not "destructive readout" that precludes variable charge integration periods, but rather having a preset exposure time which triggers that destructive readout. The Specification at this portion only disparages CCD imagers having such a preset exposure time and only in the context of fluorescence microscopes. At most, the Specification overgeneralizes about "CCD imagers," but the point remains that what the actual claim language requires is "selectively varying integration periods," which on its face excludes a preset or fixed period but does not necessarily exclude a CCD imager capable of selectively varying integration periods. Therefore, we do not find here the level of disparagement argued by Appellant.

Also, the Specification at column 13, lines 30–35, states:

[I]t will be clearly understood that *the invention claimed herein* is not specifically limited to an image sensor as disclosed in the U.S. Pat. No. 5,471,515, but *encompasses any image sensor which may be configured for use in conjunction with the other processing circuitry which makes up the imaging device of this invention.*

Spec. column 13, lines 30–35 (emphasis added). Contrary to Appellant's assertion that this is merely background art (Reply Br. 5), we conclude that it speaks to using the invention of "selectively varying integration periods" with "any image sensor."

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Finally, the discussions at column 6 and of Figures 9 and 10, at column 18, line 49, through column 20, line 20 of the Specification, do connect the use of variable charge integration and a CMOS-CID imager in a single device. However, Appellant’s argument does not point to disparagement in these sections of the Specification, and we do not find therein the disparagement required by *UltimatePointer*.

A.3.b. First Argument – Contention 2 – Panel’s Analysis

Appellant contends that “[i]n contrast to CCD image sensors which have a set predetermined integration period (*i.e.*, it cannot be varied ***once readout***), CMOS-CID image sensors permit real time monitoring (continual readout) of the image during the charge integration time period.” *Id.* (emphasis added). We do not find Appellant’s contention “contrast[ing] operation of a CCD sensor with the operation of a CMOS or CID sensor” (Appeal Br. 8), to be relevant to the rejection before us.

First, Appellant’s contention is not commensurate with the scope of the claim language. Appellant’s contention focuses on (a) integration variability “once readout” has occurred (*i.e.*, readout occurs prior to varying the integration period) and (b) real time monitoring (continual readout). However, claim 1 recites “selectively varying integration periods to produce an image of a desired brightness” which places no such restrictions on the invention. The Examiner correctly points out that “the claims do not recite ‘real time monitoring (or continual readout) of the image during the charge integration time.[.]’” Ans. 4–5. Nor do we find claim 1 requires real time monitoring or continual readout during any time period. Further, we find nothing in claim 1 that requires the sensor be varied once readout occurs,

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that is, nothing in claim 1 precludes varying the integration period prior to the readout.

Second, Appellant’s contention overlooks that not all CCD image sensors have a set predetermined integration period, as evidenced by Tomoyasu showing it was known in the art to have a CCD image sensor with an integration period which can be varied before readout.

[T]he greater the integration controlling voltage, the longer the exposure time, increasing the image integrating function as the integrating means. Note that when the integration controlling voltage is zero, then there will be a constant image exposure time.

Tomoyusa ¶ 23.

## B. SECOND ARGUMENT

Also, Appellant raises the following claim construction and procedural arguments in contending that the Examiner erred in rejecting claim 1 based on OTDP.

### B.1. Second Argument – Appellant’s Contentions

Appellant contends (a) the “time select switch” is not governed by a means plus function interpretation and (b) the Examiner’s “reliance on that false premise is a fundamental error that *warrants* reversal and *reinstatement of the previously granted allowance* of claim[] 1.” Appeal Br. 9–10. Appellant further contends:

The Examiner . . . suggested that Patent Owner provided an *inconsistent position* (which it did not) between the related IPR and this reexamination. *Second Advisory Action* at 2–3. However, the Examiner embraced a mistaken understanding of Patent Owner’s position - assuming thought Patent Owner’s argument was premised on the fact that the time select switch of



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claim 1 was construed as a *means plus function*. *Id.*; *First Advisory Action* at 6–7. In fact, Patent Owner did not take that position and has not changed its position and is consistent with the related IPR—IPR 2020-00474.

Appeal Br. 9.

### B.2. Second Argument – Panel’s Analysis

We are unpersuaded by Appellant’s arguments. First, the Board lacks authority to order the requested “reinstatement of the previously granted allowance of claim[] 1.” Such authority rests with the Director by way of petition.

The Director shall cause an examination to be made of the application and the alleged new invention; and if on such examination it appears that the applicant is entitled to a patent under the law, the Director shall issue a patent therefor.

35 U.S.C. § 131.

Second, the rejection before us is not premised on the “time select switch” being governed by a means plus function interpretation. While the *First Advisory Action* was so premised, in the *Second Advisory Action* “the Examiner withdraws his previous comments regarding the requirement of circuitry 318 since it creates inconsistencies among the proceedings” (Second Advisory Action 3), and returns to the claim interpretation of the Final Action which does not treat the “time select switch” as being governed by a means plus function interpretation.

[S]ince the Patent Owner did not assert that the claimed “time select switch” must be constructed under 112 6<sup>th</sup> paragraph . . . , then the Examiner maintains the same position set forth in the Final Rejection in that the claim term does not require any additional structure and therefore does not require circuitry 318 since it is not a claimed element. For this reason, the double

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patenting rejection of Tomoyasu remains since the Examiner, upon reconsideration, maintains that circuitry 318 is not required for the claimed time select switch.

Therefore, the rejection of claims 1 and 2 will remain for the reasons set forth in the Final Rejection.

Second Advisory Action 3.

Third, we agree with the Examiner that:

Patent Owner's current construction of the claim term "time select switch" is *inconsistent* with [Appellant's proposed] construction in IPR2020-00474 since [Appellant's proposed] construction in the IPR did not include "circuitry 318".

Second Advisory Action 3. Contrary to Appellant's contention, the Examiner does not premise his determination of inconsistent construction on a means plus function interpretation of the "time select switch," but rather on failure of Appellant's proposed IPR construction of the "time select switch" to include circuitry 318.

### C. THIRD ARGUMENT

Further, Appellant raises the following prior art teaching argument in contending that the Examiner erred in rejecting claim 1 based on OTDP. Appellant argues Tomoyasu does not disclose the claimed features. Appeal Br. 10–13; Reply Br. 2, 6–10.

#### C.1. Third Argument – Appellant's Contentions

In arguing that Tomoyasu does not disclose the claimed features, Appellant presents the following contentions.

##### C.1.a. Third Argument – Contention 1

[A]s Patent Owner has noted, Tomoyasu uses automatic gain control (AGC) circuitry and *never allows a user to vary the*

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*actual integration period* to produce an image of a desired brightness, *independent of* the AGC circuit—the gain control knob for adjusting integration merely gains priority over AGC. Response to Office Action at 6; *Response after Final Office Action* at 6-7; Tomoyasu at [0018], [0040].

Appeal Br. 10 (additional emphasis added).

### C.1.b. Third Argument – Contention 2

The time select switch in *Tomoyasu* is *not remote* from the first circuit board as required by the claims *because the functionality to adjust the integration period is on the first circuit board* with the image processing circuit (rather than a remote switch), as shown in Figure 3 of Tomoyasu.

Appeal Br. 10 (additional emphasis added).

The Examiner’s assertion that the claims do not require a time select switch *with the remote functionality in circuit 318* is contrary to the Specification and recited claim limitations which require the switch to selectively vary the integration period. See, e.g., Claim 1 (“*said switch* having a plurality of settings *enabling* selective control *to produce the image of a desired brightness*”). Further, the Specification of the ’740 Patent explains that the time select switch . . . *cannot work without the readout clock select circuitry 318* which is must be [sic] *remote* from the first circuit board:

FIG. 10 is a schematic diagram of an imager and its processing circuitry which incorporate variable charge integration capability. Imager 40 is coupled to its video processing circuitry 50. Power supply 52 supplies power to the 40 imaging device and the additional circuitry to achieve charge integration. *In order to incorporate variable charge integration capability, imager readout clock select circuitry 318 is added which communicates* with one or more of the video processor boards 50. An imager integration time select . . . switch 320 is provided *enabling an operator to manually select the*

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*desired integration period.* As shown, the integration periods may be periods of less than one second, or more than one second.

'740 Patent at [19:]37–49 (emphasis added).

Figure 10, further confirms that circuitry 318 is remote from the first circuit board. . . . Therefore, *the time select switch includes* the functional element, *circuitry (318)*, and is remote from the first circuit board to vary the integration period.

Appeal Br. 11–12 (additional emphasis added).

[T]he time select switch element in claim[] 1 . . . recites that this element is “remote from the first circuit board.” The Examiner’s Answer, however, *fails to demonstrate* that the circuitry or components in Tomoyasu that encompass the time select switch element are *remote* from the first circuit board. Rather, the *Tomoyasu* “time select switch” *components* identified in the Examiner’s Answer *are directly on the first circuit board.*

Reply Br. 2 (emphasis added).

Claim[] 1 . . . . of the '740 Patent require that the time select switch for selectively varying integration periods be *remote* from the first circuit board. Tomoyasu fails to meet this limitation because the control knob in Tomoyasu is just that, a *knob with no supporting circuitry for varying the integration periods* and thus *not a remote* “time select switch.” More particularly, as a matter of claim construction, a “time select switch” is not a simple “switch.” The “time select switch” *must include* the *functionality to vary* the integration period and *must* be *remote* from the first circuit board. The Examiner’s Answer rejection of claims 1 and 2, however, is premised on a *flawed construction that a “time select switch” is synonymous with any kind of “switch”* and does not require the *functionality for varying* the integration periods to be *remote*. Examiner’s Answer at 7–10. This is wrong and under the proper construction, Tomoyasu *does not disclose* the claimed *remote* “time select switch.”

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Reply Br. 6–7 (additional emphasis added).

It is undisputed that the Automatic Gain Control (AGC) circuit 27, ***Exposure Time Control circuit 30 and Integration Control circuit 31*** (collectively referred to as “integration time select circuits”) in Tomoyasu, which performs the actual function “varying” the integration period, ***is not remote*** from the first circuit board 20, but in fact is located on the first circuit board with the image processing circuitry 26, as shown in Figure 3 of Tomoyasu[.] . . . Thus, control knob 23, including the integration time select circuits, are not remote from the first circuit board in Tomoyasu.

Reply Br. 7 (emphasis added).

Based on the specification (and claims), the proper construction for a *remote* “time select switch” requires the ***functionality for varying integration periods be remote***. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (“The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.”). Under the correct construction, Tomoyasu ***does not disclose a remote*** “time select switch” because AGC 26, ***Time Exposure Control circuit 30 and Integration Control circuit 31*** are all on the same circuit board 20 and ***are not remote*** from circuit board 20.

Reply Br. 9 (emphasis added).

## C.2. Third Argument – Panel’s Analysis

We are unpersuaded by Appellant’s argument.

### C.2.a. Third Argument – Contention 1 – Panel’s Analysis

Appellant contends that the Examiner errs because Tomoyasu uses automatic gain control (AGC) circuitry and never allows a user to vary the actual integration period independent of the AGC circuit. We disagree.

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First, Appellant’s contention is not commensurate with the scope of the claim language. Claim 1 does not preclude use of an AGC circuit to vary the actual integration period.

Second, even if claim 1 were construed to require varying the actual integration period independent of the AGC circuit, such would have been obvious in light of Tomoyasu teaching it was known for a still image to “extend[] the integration time of the image sensor” with “little negative effect on the S/N of the image.” Tomoyasu ¶¶ 3–5.

C.2.b. Third Argument – Contention 2 – Panel’s Analysis

C.2.b.i.

Appellant asserts that Tomoyasu does not disclose the claimed “a remote time select switch” because Tomoyasu’s Exposure Time Control circuit 30 and Integration Control circuit 31 perform the actual function of “varying” the integration period, and thus, the functionality to adjust the integration period is on the Tomoyasu’s first circuit board (Appeal Br. 10; Reply Br. 7 and 9). We disagree with Appellant’s assertion.

We do not construe claim 1 to require integration control circuitry as part of the claimed time select switch. Indeed, claim 1 does not even recite “integration control circuitry.” Appellant is conflating the claimed function of “selectively varying integration periods” with the function of performing the actual integration (control circuitry) based on selectively varying the integration period. Claim 1 requires the first function, but not anything that performs the second.

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C.2.b.ii.

As to Appellant’s assertion that claim 1 must be read as the time select switch including circuitry 318 (Appeal Br. 11–12; Reply Br. 7 and 9), we disagree.

First, the Specification states “[a]n imager integration time select switch 320 is provided enabling an operator to manually *select* the desired integration period.” Spec. 19:45–47 (emphasis added). That is, the function of “select[ing] the desired integration period” is the sole function recited for time select switch 320 at column 19. Reviewing Figure 10, we also find an electrical communication line shown from near the center of time select switch 320 to a first circuit board (via circuitry 318). We find disclosure of two functions (selecting and electrically communicating) disclosed as performed by time select switch 320.

Second, the description of circuitry 318 states “imager readout clock select circuitry 318 is added which *communicates* with one or more of the video processor boards 50.” Spec. 19:43–45 (emphasis added). We find the sole function performed by circuitry 318 is communicating. Claim 1 requires time select switch functions of “electrically communicating” and “selectively varying integration period” which the disclosure shows time select switch 320 as performing. We do not find circuitry 318 to be required by claim 1. As Appellant was not required to claim circuitry 318, we will not read it into claim 1. Even if we were to agree with Appellant that claim 1 must be read such that the time select switch includes circuitry 318, given the limited disclosed function of circuitry 318, nothing more would be

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required than basic communication signal conditioning circuitry well-known to an artisan.

C.2.b.iii.

As to Appellant’s assertion that (a) Tomoyasu’s “time select switch” components are directly on Tomoyasu’s first circuit board (not remote) and (b) Tomoyasu has only a knob with no supporting circuitry for varying the integration periods (Reply Br. 2 and 6–7), we disagree.

Although Appellant repeatedly references Figure 3 of Tomoyasu (Appeal Br. 10; Reply Br. 7), Appellant overlooks that:

- (i) Figure 3 of Tomoyasu, in addition to knob 23, shows supporting circuitry for varying the integration periods at item 25 (“sensitivity adjusting means” para. 17),
- (ii) Figure 1 of Tomoyasu shows the supporting circuitry at item 25 is attached to the knob 23, and
- (iii) Figure 2 of Tomoyasu shows the knob 23 (and therefore the supporting circuitry) is attached “on the front panel 13” (para. 16) and thus the knob and supporting circuitry are remote from Tomoyasu’s signal processing circuit 20 (Figure 3).

D. FOURTH ARGUMENT

Furthermore, Appellant raises the following legal argument in contending that the Examiner erred in rejecting claim 1 based on OTDP. Appeal Br. 13–14.

D.1. Fourth Argument – Appellant’s Contention

Patent Owner reiterates its . . . position that the record is completely devoid of any “unjustified or improper timewise



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extension.” Furthermore, the *First Advisory Action* and *Final Office Action* **fail to identify any acts by Patent Owner** to support such an allegation since obviousness-type double patenting is a judicial doctrine based on the principle of preventing unfair extensions of patent term, which is not at issue here.

...

Obviousness-type double patenting is a judicially created doctrine that is equitable in nature and **requires some form of gamesmanship by the Patent Owner** to unjustifiably or improperly extend the term of the patent. Patent Owner respectfully submits that the record is completely devoid of any “unjustified or improper timewise extension,” and the *First Advisory Action* and *Final Office Action* **fail to identify any acts by Patent Owner** to support such an allegation.

...

Moreover, an obviousness-type double patenting rejection was never intended to invalidate a patent-**only to ensure** there would be no “unjustified or improper” extension of term, which is not present here. . . .

As such, an equitable doctrine should not be applied in a manner that would be inequitable akin to sandbagging and depriving Patent Owner of its property rights due solely to anomalies by the PTO.

Appeal Br. 13–14 (additional emphasis added).

#### D.2. Fourth Argument – Panel’s Analysis

We are unpersuaded by Appellant’s arguments. First, Appellant does not support the assertions with any case law showing that more is required than what the Examiner has already shown. That is, Appellant has not shown that demonstrating “gamesmanship” or “acts by Patent Owner” is a requirement on the Examiner to show obviousness-type double patenting. Based on the Examiner’s rejection (Final Act. 11–14) and our analysis

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*supra*, we agree with the Examiner that “double patenting is proper under reexamination and cannot be avoided since the claims are not patentably distinct from those in the earlier [Adair ’839] Patent and Tomoyasu.”

Ans. 13.

Second, Appellant does not address that double patenting also applies to prevent harassment by multiple assignees. One goal of double patenting and terminal disclaimers is to preemptively prevent the risk of such harassment:

Even though both patents are issued to the same patentee or assignee, it (is) possible that ownership of the two will be divided by later transfers and assignments. The possibility of multiple suits against an infringer by assignees of related patents has long been recognized as one of the concerns behind the doctrine of double patenting.

*In re Van Ornum*, 686 F.2d 937, 944 (CCPA 1982) (quoting Chisum on Patents § 9.04(2)(b) (1981)).

Third, Appellant does not address preserving the public’s right to make what is covered by the *earlier* patent after it expired:

The bar against double patenting was created to preserve that bargained-for right held by the public. *See, e.g., Miller v. Eagle Mfg. Co.*, 151 U.S. 186, 197–98, 202 (1894) . . . *Odiorne v. Amesbury Nail Factory*, 18 F.Cas. 578, 579 (C.C.D.Mass.1819). If an inventor could obtain several sequential patents on the same invention, he could retain for himself the exclusive right to exclude or control the public’s right to use the patented invention far beyond the term awarded to him under the patent laws. As Justice Story explained in 1819, “[i]t cannot be” that a patentee can obtain two patents in sequence “substantially for the same invention[] and improvements”; “it would completely destroy the whole consideration derived by the public for the grant of the patent, viz. the right to use the invention at the expiration of the term.” *Odiorne*, 18 F.Cas. at 579. Thus, the doctrine of double

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patenting was primarily designed to prevent such harm by limiting a patentee to one patent term per invention or improvement.

*Gilead Scis., Inc. v. Natco Pharma Ltd.*, 753 F.3d 1208, 1212 (Fed. Cir. 2014) (parallel citations omitted).

Fourth, the Federal Circuit has explained that the inequity is Appellant's enjoyment of a second patent's term beyond the expiration of the first patent:

When the claims of a patent are obvious in light of the claims of an earlier commonly owned patent, the patentee can have no right to exclude others from practicing the invention encompassed by the later patent after the date of the expiration of the earlier patent. But when a patentee does not terminally disclaim the later patent before the expiration of the earlier related patent, the later patent purports to remain in force even after the date on which the patentee no longer has any right to exclude others from practicing the claimed subject matter. By permitting the later patent to remain in force beyond the date of the earlier patent's expiration, the patentee wrongly purports to inform the public that it is precluded from making, using, selling, offering for sale, or importing the claimed invention during a period after the expiration of the earlier patent.

By failing to terminally disclaim a later patent prior to the expiration of an earlier related patent, a patentee enjoys an unjustified advantage—a purported time extension of the right to exclude from the date of the expiration of the earlier patent. The patentee cannot undo this unjustified timewise extension by retroactively disclaiming the term of the later patent because it has *already* enjoyed rights that it seeks to disclaim.

*Boehringer Ingelheim Int'l GmbH v. Barr Labs., Inc.*, 592 F.3d 1340, 1347–48 (Fed. Cir. 2010) (citations omitted); *see also In re Lonardo*, 119 F.3d 960, 965 (Fed. Cir. 1997).

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**CONCLUSIONS**

The Examiner has not erred in rejecting claims 1 and 2 as being unpatentable on the ground of nonstatutory (obviousness type) double patenting.

The Examiner’s rejection of claims 1 and 2 as being unpatentable on the ground of nonstatutory (obviousness type) double patenting is **affirmed**.

**DECISION SUMMARY**

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2		Nonstatutory (obviousness type) double patenting  Adair '839, Tomoyasu	1, 2	
<b>Overall Outcome</b>			1, 2	

**REQUESTS FOR EXTENSIONS OF TIME**

Requests for extensions of time in this ex parte reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

**AFFIRMED**

cc Third Party Requester:

ROPES & GRAY LLP  
 IPRM DOCKETING - FLOOR 43 PRUDENTIAL TOWER,  
 800 BOYLSTON STREET  
 BOSTON, MA 02199-3600