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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* YONGMAN LEE, KWANGYOUNG KIM, and SUNGDAE CHO

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Appeal 2017-009519  
Application 14/256,585<sup>1</sup>  
Technology Center 2600

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Before ERIC S. FRAHM, DENISE M. POTHIER, and  
SCOTT B. HOWARD, *Administrative Patent Judges*.

HOWARD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–3 and 8–10. Claims 4–7 and 11–14<sup>2</sup> have been objected to as being dependent upon a rejected base claim and claims 15–21 are allowable. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> Appellant identifies the applicant, Samsung Electronics Co., Ltd., as the real party in interest. Br. 2.

<sup>2</sup> Although Appellant appeals the objected claims (Br. 6), claims that are objected to, but are not rejected, are not within the jurisdiction of the Board. *See* 37 C.F.R. § 41.31(a)(1). Accordingly, we do not address those claims in this Decision.

## THE INVENTION

The disclosed and claimed invention is directed to an electronic device and method for operating the same. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for operating an electronic device, the method comprising:
  - receiving a sensing image having a sensor pattern of an image sensor and meta-information including sensing image information related to the sensing image;
  - storing the sensing image and the sensing image information including the meta-information;
  - receiving an event for displaying the stored sensing image on a display unit operably connected with the electronic device;
  - generating an output image to be displayed by the display unit based on the sensing image, the meta-information and mapping information on mapping the sensor pattern of the image sensor to a bayer pattern of the display unit; and
  - displaying, by the display unit, the image.

## REFERENCE

The prior art relied upon by the Examiner as evidence in rejecting the claims on appeal is:

Rubinstein                      US 2010/0220215 A1                      Sept. 2, 2010

## REJECTION

Claims 1–3 and 8–10 stand rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Rubinstein. Final Act. 3–5.

## ANALYSIS

We have reviewed the Examiner's rejection in light of Appellant's arguments that the Examiner erred. In reaching this decision, we have

considered all evidence presented and all arguments made by Appellant. We are not persuaded by Appellant’s arguments regarding claims 1–3 and 8–10. Instead, we incorporate herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken (Final Act. 3–5), (2) the reasons and rebuttals set forth in the Advisory Action (Adv. Act. 2–4), and (3) the reasons and rebuttals set forth in the Examiner’s Answer in response to Appellant’s arguments (Ans. 6–8). We incorporate such findings, reasons, and rebuttals herein by reference unless otherwise noted. However, we highlight and address specific findings and arguments for emphasis as follows.

Appellant argues the Examiner erred in finding Rubenstein discloses “receiving a sensing image having a sensor pattern of an image sensor and meta-information including sensing image information related to the sensing image,” as recited in claim 1. Br. 4–5. Specifically, Appellant argues “Rubenstein [Figure 5] describes the ‘compressed video stream 508’ including ‘packets that contain encoded pixel data and encoded metadata that describes how portions of the data have been encoded, and also include packets that represent various types of delimiters, including end-of-sequence end-of-stream delimiters.’” Br. 4. But, according to Appellant, that does not include a sensor pattern of an image sensor. *Id.* Appellant further argues the Bayer filter mosaic disclosed in Figure 31 and paragraph 59 does not cure this deficiency:

In this case, one or more of the arrays 3102 and 3104 of Rubenstein FIG. 31 are simply a Bayer filter mosaic (see Rubenstein paragraph 104). However, the Bayer filter mosaic is not sent in FIG. 5 of Rubenstein, but pixel data (see Rubenstein paragraph 59). Accordingly, even where the Bayer filter is used, there is no description in Rubenstein FIG. 5 that

the packets of the “compressed video stream 508” include “a sensor pattern of an image sensor” as recited. Rubenstein describes the “compressed video stream 508” including “packets that contain encoded pixel data and encoded metadata that describes how portions of the data have been encoded, and also include packets that represent various types of delimiters, including end-of-sequence end-of-stream delimiters.” There is no description of the inclusion of “a sensor pattern of an image sensor” as recited.

Br. 5.

The Examiner finds Rubenstein discloses a “video stream is made up of a series of images being transmitted at some frame rate” and that “the image sensor (502) outputs imaging data in a video stream (504) to the video encoder (506), which then processes the stream for remote output to another device, such as a display or a client device.” Ans. 5. The Examiner further finds the video stream will include the sensor pattern of an image sensor:

Because the compressed video stream is a video comprising digital images captured by the image sensor, this compressed video stream must be made up of pixels that constitute the digital images. Rubenstein discloses that their image sensor uses some color filter array (3102) or, more specifically, a Bayer pattern filter (3202), and as such, the compressed video stream must be made up of images containing “a sensor pattern of an image sensor.”

*Id.*; see also Adv. Act. 2 (finding “the image containing a sensor pattern (a frame of the video stream captured with the Bayer filter) and metainformation [sic] (data, such as header data, encoded with the video stream) is considered disclosed by Rubenstein”).

Figure 5 discloses sensor 502 generating a video stream made of pixels. Figures 31 and 32 disclose that the sensor can include a color filter array, such as a Bayer color filter array. Rubenstein ¶¶ 104–105. Therefore,

Rubenstein discloses a sensor generating a video stream made of pixels generated using a Bayer image pattern, which the Specification describes as an example of a sensor pattern. *See* Spec. ¶ 56. Accordingly, we are not persuaded by Appellant’s argument that the Examiner erred.

Appellant further argues the Examiner erred in finding Rubenstein discloses “storing the sensing image and the sensing image information including the meta-information” as recited in claim 1. Br. 5. According to Appellant, “Rubenstein merely shows a compressed stream input to a video encoder and decoder, and a compressed stream and video stream out” but does not describe storing any information. *Id.* Appellant further argues that even when the data is stored, “there is no disclosure that it is stored as the ‘the sensing image and the sensing image information including the meta-information’ as recited.” *Id.*

The Examiner finds the Rubenstein Figure 5 discloses the “video stream contain[ing] various metadata . . . and [it] would inherently have to be stored somewhere (such as in RAM) in order to then be output to a target display.” Final Act. 2–3; *see also* Adv. Act. 3 (explaining why the data of the video stream must be stored); Ans. 6 (“This compressed video stream must be stored somewhere in the device, in order for the video to be streamed out. At minimum, the compressed video stream needs to at least be temporarily stored in the video encoder 506, as the video is being processed.”).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). “To establish inherency, the extrinsic evidence

must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Further, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002).

Because the Examiner is relying on an inherent characteristic, Appellant’s argument that the reference does not disclose storing the metadata is not persuasive. Instead, because the Examiner provides a sufficient basis in fact and technical reasoning to support the finding that the claimed metadata is stored, we are not persuaded by Appellant’s argument that the Examiner erred.

Appellant also contends the Examiner erred in finding Rubenstein discloses the generating and displaying steps recited in claim 1. Br. 5–6. According to Appellant, “Rubenstein merely discloses the features of encoding the raw image for sending the video stream to a display unit and decoding the compressed video stream for outputting the image on the display unit.” *Id.* at 5. Appellant also argues “[t]here is no description of features of receiving an event for displaying the stored sensing image on a display unit operably connected with the electronic device.” *Id.* at 5–6.

The Examiner finds Rubenstein discloses the generating and displaying steps recited in claim 1. Final Act. 3–4 (citing Rubenstein ¶¶ 52, 105, Fig. 10A–D); Adv. Act. 3–4; Ans. 7. More specifically, the Examiner finds:

As stated in [0052], the digital image captured by the system can be displayed on display devices. Further, Rubenstein states in [0057], the compressed video stream is received by a video display device and is decoded to display the video, such as in a manner as disclosed in [0052.]

This process encompasses the “receiving an event,” “generating an output,” and “displaying” as required by the current claim. If, as Rubenstein discloses, the video is compressed and output to a handheld device, and the user of the handheld device opens that video, then all three steps have occurred. The act of displaying an image on a display as disclosed in [0052, 0057] must have included a) some trigger to play the video (whether automatically by the system or by user intervention), b) some image generated from the stream (because the display cannot show a video without the frames of the video), and c) displaying the image.

Adv. Act. 3–4; *see also* Ans. 7 (providing further rational to support the finding).

Anticipation does not require “the reference [to] satisfy an *ipsissimis verbis* test.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009). Moreover, “it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826 (CCPA 1968); *see also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (holding that prior art reference must be “considered together with the knowledge of one of ordinary skill in the pertinent art” (quoting *In re Samour*, 571 F.2d 559, 562 (CCPA 1978))). Although Rubenstein does not use the same words as the claim, the Examiner’s findings are supported by how a person of ordinary skill in the art would understand the reference. Therefore, we are not persuaded that the Examiner erred.



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Accordingly, we sustain the Examiner's rejection of claim 1, along with the rejection of claim 8, which is argued on the same grounds, and the rejection of dependent claims 2, 3, 9, and 10, which are not argued separately. *See* Br. 6.

#### DECISION

For the above reasons, we affirm the Examiner's decision rejecting claims 1–3 and 8–10.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED