UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SATORU YAMAUCHI,
AKIRA OSAMOTO, SHINRI INAMORI, and OSAMU KOSHIBA

Appeal 2008-3582
Application 10/156,422
Technology Center 2600

Decided: November 17, 2008

Before JOSEPH F. RUGGIERO, ROBERT E. NAPPI,
and KARL D. EASTHOM, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-2. (App. Br. 3). We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to a digital camera having *inter alia*, a preview engine. The preview engine can perform RGB color processing and a YCbCr resizing function (*see generally* Spec. 1-2, 54-57).

Claim 1 is illustrative of the invention and reads as follows:

1. An integrated circuit for a digital camera, comprising:

(a) a first programmable processor programmed to run control functions, said first processor coupled to a user interface, a controller for memory, and a controller for image acquisition;

(b) a second programmable processor programmed to run image processing functions, said second processor coupled to said first processor; and

(c) a preview engine coupled to said first processor, to said controller for image acquisition, and to said controller for memory;

(d) wherein said preview engine has a first mode with input coupled to said controller for image acquisition and with RGB image processing functions plus a second mode with input coupled to said controller for memory and with a YCbCr resizing function.

The Examiner relies on the following prior art reference to show unpatentability:

Atsatt US 6,750,876 B1 June 15, 2004

Claims 1-2 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Atsatt.

ISSUE

Appellants generally dispute the Examiner's finding that Atsatt teaches the preview engine as recited in claims 1 and 2 and resizing as recited in claim 1. (App. Br. 3-4). The issue: Did the Appellants demonstrate error in the Examiner's finding that Atstatt teaches a preview engine and resizing?

FINDINGS OF FACT (FF)

1. Atsatt discloses a programmable display controller 400 that operates a plurality of video modes including NTSC (National Television Systems Committee), S-video, PAL and LCD modes to produce an image in the image display 406. (Col. 2, ll. 31-44; col. 7, ll. 18-26; col. 14, ll. 17-55). The display controller 400 comprises, *inter alia*, a modulator 430 (containing modulation function generator 436 and modulation controller 432), mode select 412, and a data buffer 422, all connected between an image memory 402 and a DMA controller 404 at the input, and a display 406 at the output. (Atsatt, Fig. 4).

2. The display controller 400 processes a variety of LCD formats including different RGB formats such as RGB, monochrome, complementary color, and pastel RGB. (Atsatt, col. 18, ll. 44-63). An LCD display unit 406 creates an image using such formatted data with different formats having different data bit widths (Atsatt, Fig. 4, col. 14, ll. 47-55, col. 18, ll. 44-63, *see also* FF 1). Modulator 430 within the controller 400 (Fig. 4) generates control and timing information for different LCD displays (*see generally* Atsatt, col. 18 l. 44 to col. 20, l. 65). Different types of control words are embedded in the RGB data words to control processing thereof, including link

and repeat codes (Atsatt, col. 20, ll. 28-55). The controller 400 causes such repeat codes to cause the same RGB data to be repeated a specified number of times (*id*.).

3. Atsatt discloses that certain standard formats convert YCbCr pixel values into either YUV or YIQ formatted data values. YIQ represents luma (Y) phase accompanied by different color components I (in-phase) and Q (Quadrature). The YIQ format is used in such standard video formats such as NTSC or PAL to convert digitally stored data to analog video. (Atsatt, col. 2, ll. 9-47, col. 15, ll. 25-44).

4. The NTSC mode reduces the amount of image data required, since either only Y and I data, or, only Y and Q data, are employed for each pixel. (Atsatt, col. 15, ll. 38-44).

5. Atsatt discloses that in non-LCD modes (i.e., NTSC, S-video, or PAL – *see* FF 2), each memory word stores two pixels represented by sixteen bits, with an eight-bit luma value and eight bit chroma value. Atsatt discloses that in some embodiments, "each memory word might store just one pixel value or more than two pixel values." Or, more or less bits per luma or chroma value may be stored. (Atsatt, col. 10, ll. 6-12).

PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn,* 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet,* 149 F.3d 1350, 1355

(Fed. Cir. 1998)). Appellants may sustain this burden by showing that the prior art reference relied upon by the Examiner fails to disclose an element of the claim. It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 145 (Fed. Cir. 1984).

ANALYSIS

With respect to claim 1, Appellants argue that Atsatt's controller 209/400[1] is not a preview engine, based on inputs to controller 400 as shown in Atsatt's Figure 4, and because Appellants' preview engine can process raw data from the image acquisition controller and apply RGB image processing functions such as CFA interpolation. Appellants further argue that Atsatt's preview engine data resizing merely relates to changing the number of bits for each pixel, and thus does not constitute the claimed resizing, which Appellants submit involves changing the number of pixels in an image. (App. Br. 3-4).

We are not persuaded by Appellants' arguments. The general allegation implying that Atsatt discloses different inputs at Figure 4 does not rise to the Appellants' burden of asserting error in the Examiner's position.

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[1] Atsatt inconsistently refers to the programmable display controller *209* at Figure 2 as "programmable display controller *210*" (*compare* Fig. 2 with col. 4, ll. 46-47) (emphasis added). Regardless, we refer to the same controller 209 (or 210) as controller 400 - as Atsatt does in the more detailed block diagram of the programmable display controller 209. (Fig. 4, *see* col. 4, ll. 1-2; col. 6, ll. 33-35).

The statement fails to point out which inputs defeat the Examiner's finding that the controller 400 constitutes the claimed preview engine, nor does the statement even allege what claim 1 requires. Accordingly, we have no basis upon which to find error in the Examiner's finding, and we concur with the Examiner that Atsatt reasonably discloses the preview engine as recited in claim 1. (*See* Ans. 4-7).

We also find that Atsatt's controller 400 processes RGB data as the Examiner determined (Ans. 4-7), where, for example, the controller supplies control and timing information to the RGB data to generate an image (FF 1, 2). Appellants do not dispute this aspect of the Examiner's finding with any specificity, except to argue that the claim requires CFA interpolation (App. Br. 4). However, as the Examiner explained (Ans. 6), the claim does not recite such interpolation. Nor does the claim recite raw data, as Appellants related argument *supra* implies. Therefore, the arguments are not commensurate in scope with claim 1, and we have no basis for finding error in the Examiner's finding that Atsatt discloses a preview engine 400 performing RGB processing of image data (FF 1, 2), as recited in the claim.

We also are not persuaded by Appellants' implied argument that the YCbCr resizing as claimed precludes a change in the number of bits per pixel as the Examiner determined. (Ans. 5-7). Appellants, citing their Specification at page 59, lines 1-5, (*see* App. Br. 3: 1-5), argue that the claimed resizing function requires the number of pixels per image to change. However, our inspection of the disclosure at the cited passage reveals no special definition nor any requirement imputed to claim 1 for such a limitation on the resizing function. Nor does the claim even recite pixels per image.

Appellants' remarks indicate that they agree with the Examiner's finding, with which we concur, that Atsatt's NTSC mode, corresponding to the claimed YCbCr resizing mode (FF 3), teaches reducing the number of bits (i.e., amount of data) per pixel (*see* FF 4, Ans. 6-7). We find that reducing the number of bits per pixel reduces the data required to store the image (*see* FF 4), and thereby corresponds to the claimed resizing function. That is, we see no distinction as it relates to claim 1 between either reducing the number of pixels per image or reducing the number of bits (data) per pixel – each constitutes a reduction of data and/or a corresponding reduction of the stored memory requirements.

We further find, as an alternative, that Atsatt also discloses altering the number of pixels per word in the NTSC mode (FF 5) - which mode corresponds to the claimed YCbCr resizing function as we found above (FF 3). This "resizing" of pixels per word also constitutes a resizing as claimed.

In summary, with respect to claim 1, the Examiner has at least set forth a sufficient initial showing of anticipation of the invention as recited in independent claim 1. Appellants' arguments do not demonstrate error.

Appellants also do not demonstrate error with respect to claim 2. Appellants merely repeat the assertion made with respect to claim 1 that Atsatt's display controller 209/400 is not a preview engine.[2] That assertion is not correct as noted above. Moreover, claim 2 does not require resizing or RGB image processing, and yet, Appellants rely, at least to a certain extent,

[2] "A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim." 37 C.F.R. § 41.37(c)(1)(vii).

upon such functions to support their unfounded assertions that Atsatt does not disclose a preview engine.

Accordingly, we sustain the Examiner's rejection of claims 1-2.

CONCLUSION

Appellants did not demonstrate error in the Examiner's finding that Atstatt teaches a preview engine and resizing.

DECISION

We affirm the Examiner's decision rejecting claims 1-2.

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)(2006).

AFFIRMED

gvw

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