

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIROKAZU IDE, AKIO KOBAYASHI, HIDEFUMI OKADA,
HARUHIKO MURATA, ATSUSHI KOBAYASHI,
TOMIO ISHIGAMI and YASUHIKO NAITO

Appeal No. 2000-1735
Application No. 08/780,930

ON BRIEF

Before THOMAS, KRASS and BARRY, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-7, all of the claims remaining in the application.

The invention is directed to a digital video camera. More particularly, the camera has two modes: a normal mode wherein all charges in the entire line produced

by photo-electric elements are read out through vertical and horizontal transfer CCDs to generate the image, and a quadruplication, or zoom, mode, wherein only those charges for a portion of each scan line are used to generate the image. Further, a black level for the quadruplication, or zoom, mode is based on charges read out during a front portion of each such line while the black level for the normal mode is based on charges read out during a back end of the line signal.

Independent claim 1 is reproduced as follows:

1. A digital video camera, comprising:

a CCD imager including a plurality of vertical transfer CCDs which read-out charges stored in a plurality of photo-electric conversion elements and successively transfer read-out charges in a vertical direction, and a plurality of horizontal transfer CCDs which successively transfer charges transferred from said plurality of vertical transfer CCDs, in a horizontal direction;

a switching means for switching a first mode that a whole of each line signal outputted from said CCD imager is utilized for displaying an image and a second mode that only a portion of each line signal including a front end of each line signal outputted from said CCD imager is utilized for displaying an image;

a first period defining means for defining a first predetermined period at a back end of said line signal in said first mode;

a second period defining means for defining a second predetermined period at said front end of said line signal in said second mode;

an A/D conversion means for converting said line signal obtained from said CCD imager into a digital signal;

a clamp level calculation means for calculating a clamp level on the basis of said digital signal in one of said first predetermined period and said second predetermined period; and

a clamping means for clamping said line signal at said clamp level.

The examiner relies on the following references:

Hirota	4,856,033	Aug. 08, 1989
Hashimoto	4,910,599	Mar. 20, 1990
Koyama	5,448,306	Sep. 05, 1995
Yukio et al. (Yukio)	JP 5-244490	Sep. 21, 1993
Haruhiko et al. (Haruhiko)	JP 7-212657	Aug. 11, 1995

Claims 1-7 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner cites Hashimoto, Koyama and Hirota with regard to claims 1 and 4, adding Yukio¹ to the combination with regard to claims 3, 6 and 7 and adding Haruhiko to the original combination with regard to claims 2 and 5.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

¹We employ the same names for the applied references as do appellants and the examiner.

Focusing our attention on independent claim 1, the examiner relies heavily on the primary reference to Hashimoto for teaching all of the claimed subject matter but for an A/D converter for converting the output signal into a digital signal prior to performing clamp calculations. The examiner relies on Koyama for a teaching that digital feed back clamping is an improvement over prior art clamping systems and so it would have been obvious to use a digital signal as the base for calculation of a clamp level in Hashimoto. The examiner indicated that the combination still lacked the use of an interline transfer structure imager with multiple horizontal registers and employed Hirota for such a teaching.

Appellants do not argue claim limitations regarding the A/D converter or any interline transfer structure. Thus, these limitations are not relevant to the issue before us.

Rather, the focus of the arguments on this appeal is on whether Hashimoto teaches or suggests the claimed switching means, first period defining means, second period defining means and clamp level calculation means.

The examiner identifies the various claimed elements in Hashimoto as follows:
switching means at column 1, lines 60-69; first period defining means at column 7,

line 67 - column 8, line 7 and back of register ob1 in Figure 4; second period defining means at column 8, lines 19-54 and front of register ob2 in Figure 4; clamp level

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calculation means at column 8, lines 41-61.

For their part, appellants contend that Hashimoto is much different than the instant claimed invention in that they are not even directed to the same problem. That is, while Hashimoto is concerned with reducing artifacts, caused by optical noise and Moire patterns in an image, the instant invention is concerned with coloration errors, such as those caused by image areas that are not as dark as they should be. While appellants' observation appears to be accurate, it is unclear how this is relevant to the instant *claimed* subject matter since there is nothing recited by the instant claims regarding correction of coloration errors.

Appellants also spend considerable time in the briefs arguing how the instant invention provides for proper "optical black level" in both the normal and quadruplicated modes. However, we find nothing in the instant *claims* reciting a "quadruplicated" mode or an "optical black level." Arguments not directed to *claimed* limitations are not persuasive.

Nevertheless, we will not sustain the examiner's rejection of claims 1-7 under 35 U.S.C. § 103 because, in our view, the examiner has not established a prima facie case of

obviousness.

Independent claim 1 does recite a “first” and “second” mode. It further recites “a first period defining means for defining a first predetermined period at a back end of said line signal in said first mode” and “a second period defining means for defining a second predetermined period at said front end of said line signal in said second mode.” The examiner relies on Figure 4 of Hashimoto to show that the “leading” line signal is shown at “ob2” while the “rear” is indicated at “ob1,” contending that the charges at the “beginning of the register” are used for optical black in the zoomed mode while for the normal mode, the “back of register” charges, “ob1” are used for optical black.

We agree with appellants, for the reasons set forth at pages 7-10 of the reply brief, that it would appear that the beginning of the scan line, based at least on the direction of the arrows at 102, would appear to be at “ob1” while the trailing, or rear, end would appear to be at “ob2”. If so, and the examiner has offered nothing to convince us of error in appellants’ position, then the second predetermined period at the back end of the line signal with the first predetermined period at the front end of the

line signal would appear to be just the opposite of what is claimed, i.e., a first

predetermined period at a back end in the first mode and a second predetermined period at the front end in the second mode.

Now, it is possible to define the first and second predetermined periods in Hashimoto so that the first period can be said to be at the back end with the second period at the front end, as claimed. The problem with such an interpretation, or arbitrary assignment of labels, is that claim 1 also identifies the first mode as where the “whole of each line signal outputted from said CCD imager is utilized for displaying an image” while the second mode is identified as where “only a portion of each line signal including a front end of each line signal outputted from said CCD imager is utilized for displaying an image.” Therefore, while the specific terms of “normal” and “quadruplicated,” or “zoom,” modes are not explicitly recited, it becomes clear that this is exactly what is meant by the claim language. This is so because it is a “normal” mode which would use the “whole” of the line signals to display the image while in a “zoom” mode, only a portion of each line signal would be used for displaying the image because certain portions of the whole image would not be seen when “zooming” in on a particular other portion of the image.

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Since Hashimoto does not teach or suggest the subject matter of independent claim 1, and the other applied references are of no help in providing for Hashimoto's deficiencies, we will not sustain the rejection of claims 1-7 under 35 U.S.C. § 103.

The examiner's decision is reversed.

REVERSED

JAMES D. THOMAS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
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