

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MASAKAZU HAMAGUCHI,
TAKASHI FURUHATA and HIROAKI TAKAHASHI

Appeal No. 1997-1240
Application 07/881,753¹

HEARD: November 16, 1999

Before FLEMING, RUGGIERO and LALL, ***Administrative Patent Judges***.

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

¹ Application for patent filed May 6, 1992.

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This is a decision on appeal from the final rejection of claims 1 through 16, 18, 20 and 22, all the claims pending in the present application. Claims 17, 19 and 21 have been cancelled.

The invention relates to a video signal recording and/or reproducing apparatus which is capable of recording and/or reproducing both a high definition signal and a standard television signal such as the NTSC signal. On page 10 of the specification, Appellants disclose that figure 1 shows an input terminal 10 of a standard television signal, NTSC signal. Appellants disclose that this NTSC signal is converted to a pseudo HD signal by the interpolation and rate doubling circuit 200 and the high definition processing circuit 300. On pages 12 through 14, Appellants disclose that the interpolation and rate doubling circuit 200 produces an ED signal which has attributes shown in the table disclosed on page 13 labelled column ED SIGNAL. In particular, the table shows that the NTSC signal is converted from an interlace ratio of 2:1 to an ED signal having an interlace ratio of 1:1. Appel-

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lants further disclose that the high definition processing circuit 300 produces a pseudo HD signal having attributes as shown in the table disclosed on page 13 labelled column PSEUDO HD SIGNAL. In particular, the table discloses that the pseudo HD signal has 1125 lines versus

the ED signal having 525 lines. Furthermore, the pseudo HD signal has an interlace ratio of 2:1 versus the ED signal of 1:1. Independent claim 1 is reproduced as follows:

1. A video signal recording and/or reproducing apparatus for recording and/or reproducing a standard television signal and a high definition television signal having a broader band than that of the standard television signal, comprising:

recording mode presetting means for presetting one of a first recording mode in which said high definition television signal is recorded and a second recording mode in which said standard television signal is recorded;

interpolation and rate doubling processing means for applying scanning line interpolation and rate doubling conversion processing for the standard television signal to output a double rate signal;

high definition processing means for applying to the double rate signal outputted from said interpolation and rate doubling processing means a scanning line conversion processing to convert the double rate signal into a signal having a

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same format as that of the high definition television signal and a same field frequency as that of the standard television signal and an aspect ratio conversion processing to convert the double rate signal into a signal having a same aspect ratio as that of the high definition television signal;

a high definition television signal recording and/or reproducing means for recording and/or reproducing a high definition signal in accordance with a given format; and

servo control means for performing servo control in given recording and reproducing modes on recording and reproducing, respectively in response to an output from said recording mode presetting means;

one of said first and second recording modes being selected in response to an output from said recording mode presetting means so that the high definition television signal is

recorded and/or reproduced by said recording and/or reproducing means when the first recording mode is selected and an output signal from said high definition processing means is recorded and/or reproduced by said recording and/or reproducing means when said second recording mode is selected.

The Examiner relies on the following references:

Honjo	4,963,991	Oct. 16, 1990
Katsumata et al. (Katsumata)	5,353,065	Oct. 4, 1994

Claims 1 through 16, 18, 20 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Katsumata in view of Honjo.

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Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the briefs² and answers³ for the respective details thereof.

OPINION

We will not sustain the rejection of claims 1 through 16, 18, 20 and 22 under 35 U.S.C. § 103.

The Examiner has failed to set forth a ***prima facie*** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions

² Appellants filed an appeal brief on February 13, 1996. Appellants filed a reply brief on December 31, 1996. The Examiner responded to the reply brief with a supplemental Examiner's answer on May 27, 1997, thereby considering and entering the reply brief into the record. Appellants filed a supplemental reply brief on July 28, 1997. The Examiner mailed a letter on October 16, 1997 stating that the supplemental reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

³ The Examiner, in response to the appeal brief, filed an Examiner's answer on October 31, 1996. The Examiner filed a supplemental answer on May 27, 1997.

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found in the prior art, or by implications contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6

(Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.***, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), ***cert. denied***, 519 U.S. 822 (1996) ***citing W. L. Gore & Assoc., Inc. v. Garlock, Inc.***, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), ***cert. denied***, 469 U.S. 851 (1984).

On page 19 of the brief, Appellants point out that independent claim 1 recites interpolation and rate doubling processing means for applying scanning line interpolation and rate doubling conversion processing for a standard television signal to output a double rate signal, and the high definition processing means for applying to the double rate signal outputted from said interpolation and rate doubling processing means a scanning line conversion processing to convert the

double rate signal into a signal having a same format as that of a high definition television signal and a same field frequency as that of the standard television signal and an aspect ratio conversion processing to convert the double rate signal into a signal having a same aspect ratio as that of the high definition television signal. Appellants point out that these features of claim 1 discussed above are also recited in independent claims 18, 20 and 22 in slightly different terms. Appellants argue that neither Katsumata nor Honjo teaches or suggests these limitations. In particular, Appellants argue on pages 20 through 25 that Katsumata does not show in figure 11 circuitry which converts the signal outputted from double scanning speed conversion circuit into a signal having the same format as a high definition signal. Thus, Appellants argue that figure 11 of Katsumata does not correspond to a high definition processing means for applying to the double rate signal outputted from said interpolation and rate doubling processing means a scanning line conversion processing to convert the double rate signal into a

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signal having a same format as the high definition signal and the same field frequency as that of a standard television signal as recited in Appellants' claim 1.

The Examiner responded to Appellants' above argument on page 9 of the answer stating that the claimed high definition processing means for applying to the double rate signal a scanning line conversion processing to convert the same into a signal having the same format as that of a high definition signal to be an inherent characteristic of Katsumata's figure 11, component 1103, because Katsumata's reference discloses that the signal outputted from figure 11, component 1103, to be a double rate signal as well as a high definition signal as clearly specified in Katsumata's column 15, lines 7 through 12. In column 15, lines 7 through 12, Katsumata states:

The double scanning speed conversion circuit 1103 forms interpolation scanning lines from the output signals of the IDTV processor 1101 and the EDTV processor 1102, and performs movement adaptation scanning line inter- polation processing so as to attain high definition.

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On page 4 of the reply brief, Appellants argue that the Examiner has never specifically identified which of the various signals disclosed by Katsumata he considers to correspond to the high definition television signal as recited in claims 1, 18, 20 and 22, and which of the various signals disclosed by Katsumata he considers to correspond to the double rate signal recited in claims 1, 18, 20 and 22. Appellants argue on pages 7 and 8 of the reply brief that it is readily apparent from the Examiner's statements in the Examiner's answer that the Examiner has not established that figure 11 of Katsumata shows a circuit which applies to the signal output from the double scanning speed conversion circuit 1103 a scanning line conversion processing to convert the signal output from the double scanning speed conversion circuit 1103 into a signal having the same format as that of the high definition MUSE signal as would be

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required to meet the limitations of claim 1 and similar features of claims 18, 20 and 22.

In the supplemental Examiner's answer on page 4, the Examiner repeats that the feature of the high definition processing for applying to the outputted double rate signal a scanning line conversion processing to convert the same into a signal having the same format as that of the high definition television signal and the same field frequency as that of the standard television signal as specified in the claimed invention is noted to be an inherent characteristic of Katsumata, because Katsumata discloses that the signal outputted from figure 11,

component 1103, to be a double rate signal, high definition signal, of 30 Hz field frequency as required by Appellants' claims. On page 9 of the supplemental Examiner's answer, the Examiner repeats the above argument and further states that it is noted that whether one component performs the two functions or two components perform the same two functions is merely considered as well known design options obvious to one of

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ordinary skill in the art because separating the same apparatus into two or three different components would not provide any significant functional or patentable difference.

Appellants respond to the above Examiner's argument in the supplemental reply brief on page 4 stating that the problem of the Examiner's position is that the Examiner has never established that double scanning speed conversion circuit 1103 in figure 11 of Katsumata in fact provides the scanning line conversion function of the high definition processing means recited in claims 1, 18 and 20, and the scanning line conversion means recited in claim 22.

Appellants argue on page 6 of the supplemental reply brief that in figure 11 of Katsumata, IDTV processor 1101, double scanning speed conversion circuit 1103, and aspect ratio conversion circuit 108 convert the NTSC signal

into a double rate signal which is an ED signal having 525

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scanning lines, a field frequency of 59.94 Hz, an interlace ratio of 1:1, and an aspect ratio of 16:9. Appellants argue that this signal corresponds to the ED signal shown in the table on page 13 of Appellants' specification and not the high definition signal shown as the HD signal in the table on page 13. On page 7 of the supplemental reply brief, Appellants argue that figure 11 of Katsumata does not show anything whatsoever which converts the double rate or ED signal from a double scanning speed conversion circuit 1103 into a pseudo HD signal having a same format (1125 scanning lines and an interlace ratio of 2:1) as that of the HD signal which is the function performed by the scanning line conversion function recited in claims 1, 18, 20 and 22. Appellants argue that it is readily apparent that the double rate or ED signal and the MUSE or HD signal in figure 11 of Katsumata have different formats as can be seen from column 14, lines 46 through 49. We note that column 14, lines 46 through 49, reads as follows:

The system further includes a display 1104 having an aspect ratio of 16:9 which is able to be in synchronism with the double speed scanning frequency of a NTSC signal

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and the scanning frequency of a MUSE
signal.

We appreciate that the Examiner's position is that Katsumata teaches in figure 11 a box labelled DOUBLE SCAN SPEED CONVERSION, 1103, which inherently performs the function of Appellants' claimed high definition processing means for applying a scanning line conversion processing to convert the double rate signal into a signal having the same format as that of a high definition television signal and a same field frequency as that of a standard television signal.

Our reviewing court states that in order "[t]o 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, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) ***citing Continental Can Co. v. Monsanto Co.***, 948 F.3d 1264,

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1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* at 1269, 20 USPQ2d at 1749 (*quoting In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981)).

However, upon our careful review of Katsumata, we fail to find that the Examiner has established that the evidence makes clear that the missing description of converting the double rate signal into a signal having the same format as that of a high definition television signal is necessarily present in the circuit described in figure 11 of Katsumata. We are left instead with dealing with probabilities and possibilities. In column 14, lines 37 through 51, we note that Katsumata teaches that a double scanning speed conversion circuit 1103 performs movement adaptation scanning line interpolation. Furthermore, Katsumata teaches in this same portion of the specification that the system includes a display 1104 having an aspect ratio of 16:9 which is able to be in synchronism with the double

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speed scanning frequency of an NTSC signal and the scanning frequency of a MUSE signal. However, in column 15, lines 1 through 14, Katsumata teaches that the double scan speed conversion circuit 1103 forms interpolation scanning lines from the output signals of the IDTV processor 1101 and the EDTV processor 1102, and performs movement adaptation scanning line interpolation processing so as to attain high definition. However, Katsumata fails to teach that the circuit 1103 converts the input signal into a signal having the same format as that of the high definition television signal which would be the disclosed MUSE signal. Upon reading the

disclosure as a whole, one of ordinary skill in the art could be led to the possibility that, in fact, this is not the conversion which is taking place but, instead, that the display is able to accommodate either format. Therefore, because the Examiner has the initial burden to establish a ***prima facie*** case of obviousness, we will not sustain the Examiner's rejection.

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Upon our review of Katsumata and Honjo, we fail to find any teaching or suggestion of providing a high definition processing means for applying a scanning line conversion processing to convert the double rate signal into a signal having a same format as that of the high definition television signal and a same field frequency as that of the standard television signal as required by Appellants' claims.

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re***

Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

We have not sustained the rejection of claims 1 through 16, 18, 20 and 22 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

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	MICHAEL R. FLEMING)	
	Administrative Patent Judge)	
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