

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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHUNRONG ZHU

Appeal No. 2002-0723
Application 08/965,637

ON BRIEF

Before JERRY SMITH, RUGGIERO, and MacDONALD, **Administrative Patent Judges**.

MacDONALD, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-38.

Invention

The disclosed invention relates to a multi-layer coder (figure 1) and multi-layer decoder (figure 4) and the methods thereof. The base layer of the coder produces quantized output

signal samples (figure 1, item 130). The coder also produces quantization error signal samples for the base layer by inverse quantizing (figure 1, item 140) the output of the quantizer (130) and subtracting this inverse signal from the original input to the quantizer (130). The second layer of the coder compares the quantization error signal samples to a threshold reference value (180). If the error signals samples are larger than the threshold, then the second layer subtracts the threshold reference value from these error signal samples (145). The result is quantized and output by the second layer (190) (Appellant's spec. at page 9, lines 11-23). The threshold reference value (180) is continuously updated as a function of the inverse quantized (125) output of the second layer (190). The multi-layer decoder works in an inverse manner to the coder.

Claim 1 is representative of the claimed invention and is reproduced as follows:

1. A method of producing quantization error signal samples for a layer of a multi-layer coder applied to successive video frames, said method comprising:

- processing in a transform domain quantization error signal samples produced by an immediately preceding layer, the processing including using reference quantization error signal samples if a measured quantization error for the quantization error signal samples exceeds a predetermined criterion.

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References

The references relied on by the Examiner are as follows:

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|-----------------|-----------|---------------|
| Yamaguchi et al | 5,818,531 | Oct. 6, 1998 |
| Keesman | 5,729,293 | Mar. 17, 1998 |

Rejections At Issue

Claims 1-3, 5-13, 15-17, and 19-27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yamaguchi et al. Claims 4, 14, 18, and 28 stand rejected under 35 U.S.C. § 103 as being obvious over Yamaguchi et al in view of Appellant's admitted prior art. Claims 29-38 stand rejected under 35 U.S.C. § 103 as being obvious over Yamaguchi et al in view of Keesman.

Throughout our opinion, we make references to the Appellant's briefs, and to the Examiner's Answer for the respective detail thereof.

OPINION

With full consideration being given to the subject matter on appeal, Examiner's rejections and the arguments of Appellant and Examiner, for the reasons stated **infra**, we reverse the Examiner's rejection of claims 1-3, 5-13, 15-17, and 19-27 under 35 U.S.C. § 102(e), we reverse the Examiner's rejection of claims 4, 14,

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18, and 28 under 35 U.S.C. § 103, and we reverse the Examiner's rejection of claims 29-38 under 35 U.S.C. § 103.

Appellant has indicated that for purposes of this appeal the claims stand or fall together in five groupings:

Claims 1-3, 5-10, 15-17, and 19-24 as Group I;

Claims 4 and 18, as Group II;

Claims 11-13 and 25-27 as Group III;

Claims 14 and 28 as Group IV; and

Claims 29-38 as Group V.

See page 9 of the brief. Furthermore, Appellant argues each group of claims separately and explains why the claims of each group are believed to be separately patentable. See pages 9-19 of the brief and pages 4-17 of the reply brief. Examiner's position that Groups I and III form a single group and Groups II and IV form a single group because they were rejected on "a single ground" is unpersuasive as Appellant has fully met the requirements of 37 CFR § 1.192 (c) (7) (July 1, 2002) as amended at 62 Fed. Reg. 53169 (October 10, 1997), which was controlling at the time of Appellant's filing of the brief. 37 CFR § 1.192 (c) (7) states:

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Grouping of claims. For each ground of rejection which appellant contests and which applies to a group of two or more claims, the Board shall select a single claim from the group and shall decide the appeal as to the ground of rejection on the basis of that claim alone unless a statement is included that the claims of the group do not stand or fall together and, in the argument under paragraph (c)(8) of this section, appellant explains why the claims of the group are believed to be separately patentable. Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.

We will, thereby, consider Appellant's claims as standing or falling together in the five groups noted above, and we will treat:

Claim 1 as a representative claim of Group I;
Claim 4 as a representative claim of Group II;
Claim 11 as a representative claim of Group III;
Claim 14 as a representative claim of Group IV; and
Claim 29 as a representative claim of Group V.

"If the brief fails to meet either requirement, the Board is free to select a single claim from each group and to decide the appeal of that rejection based solely on the selected representative

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claim.” **In re McDaniel**, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002). **See also In re Watts**, 354 F.3d 1362, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004).

I. Whether the Rejection of Claims 1-3, 5-10, 15-17, and 19-24 Under 35 U.S.C. § 102 is proper?

It is our view, after consideration of the record before us, that the disclosure of Yamaguchi et al does not fully meet the invention as recited in claims 1-3, 5-10, 15-17, and 19-24. Accordingly, we reverse.

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, 231 USPQ 136, 138 (Fed. Cir. 1986) and **Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.**, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

With respect to independent claim 1, the Examiner has indicated how he finds anticipation of the claims on appeal [answer, page 4, lines 1-12 and page 5, lines 1-3]. The Examiner deems “Ep” to meet the “quantization error signal samples”

[answer, page 4, lines 1-2]. Appellant argues " 'Ep' in the cited patent does not meet the limitation 'quantization error signal samples' as recited in claim 1". Rather, "Ep represents either EMC or BMC". See brief at pages 9-11. The Yamaguchi et al reference defines EMC and BMC to each be a "motion compensation prediction value" output from sections 200 and 201 respectively. We find that a value for motion compensation, in which a motion vector is used to describe the translation of a set of picture elements (pels) from one picture to another is not the same as a sample of the quantization error where a picture is quantized and then the quality of the quantization is determined.

Therefore, Appellant's arguments are persuasive and we will not sustain the Examiner's rejection under 35 U.S.C. § 102.

Additionally, although not argued by Appellant, we take notice of the fact that the processing of claim 1 is contingent on "a measured quantization error for the quantization error signals" exceeding a predetermine value. The feature of Yamaguchi et al relied on to teach this feature is signal "Bq" of figure 1. As can be seen in figure 1, Bq is in fact the "quantized signal" output from quantizer 131, rather than an error signal for that quantized signal.

II. Whether the Rejection of Claims 4 and 18 Under 35 U.S.C. § 103 is proper?

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 4 and 18.

With respect to claim 4, we note that the Examiner has relied on the admitted prior art solely to teach an H.263 compliant coder and the requirements thereof [answer, page 5]. The admitted prior art in combination with the Yamaguchi et al reference fails to cure the deficiencies of Yamaguchi et al noted above with respect to claim 1. Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 103(a) for the same reasons as set forth above.

III. Whether the Rejection of Claims 11-13 and 25-27 Under 35 U.S.C. § 102 is proper?

It is our view, after consideration of the record before us,

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that the disclosure of Yamaguchi et al does not fully meet the invention as recited in claims 11-13, and 25-27. Accordingly, we reverse.

With respect to independent claim 11, the Examiner has indicated how he finds anticipation of the claims on appeal [answer, page 4, lines 13-19 and page 5, lines 1-3]. The Examiner deems signal 31 to meet the "previous signal samples were subtracted during coding" limitation of claim 11 [answer, page 4, lines 17-18]. Appellant argues "nothing is subtracted from E_c ". The Yamaguchi et al reference at figure 1 clearly teaches that indeed the signal E_c is formed by a subtraction at node 120 as can be seen by the minus symbol on the bottom input to node 120. We find that Examiner's argument to be persuasive.

However, the Examiner also deems the processing of signal 22 with signal 31 to meet the overall limitations of claim 11. We take notice of the fact that the summing of previous signal samples in claim 11 is contingent on the previous signal samples being "for this layer". As can be seen in figure 4, signal 22 is for the "enhancement layer" and signal 31 is for the "base layer." Thus, these signal are "not" signals samples for the

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same layer. Therefore, Appellant's argument that "Examiner has failed to establish that Yamaguchi meets each and every limitation of the rejected claims" is persuasive and we will not sustain the Examiner's rejection under 35 U.S.C. § 102.

IV. Whether the Rejection of Claims 14 and 28 Under 35 U.S.C. § 103 is proper?

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 14 and 28.

With respect to claim 14, we note that the Examiner has relied on the admitted prior art solely to teach an H.263 compliant coder and the requirements thereof [answer, page 5]. The admitted prior art in combination with the Yamaguchi et al reference fails to cure the deficiencies of Yamaguchi et al noted above with respect to claim 11. Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 103(a) for the same reasons as set forth above.

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V. Whether the Rejection of Claims 29-38 Under 35 U.S.C. § 103 is proper?

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 29-38.

With respect to claim 29, we note that the Examiner has relied on the Keesman reference solely to teach "applying an inverse transform and performing motion estimation in only one layer" [answer, page 6]. The Keesman reference in combination with the Yamaguchi et al reference fails to cure the deficiencies of Yamaguchi et al noted above with respect to claim 1. Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 103(a) for the same reasons as set forth above.

Conclusion

In summary, we have not sustained any of the Examiner's

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rejections of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-38 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

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| JERRY SMITH |) | |
| Administrative Patent Judge |) | |
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| |) | BOARD OF PATENT |
| JOSEPH F. RUGGIERO |) | |
| Administrative Patent Judge |) | APPEALS AND |
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