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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DOMINIC H SYMES

Appeal 2015-008211
Application 13/137,126
Technology Center 2400

Before ST. JOHN COURTENAY III, JENNIFER L. McKEOWN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

HOWARD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–33, which constitute all of the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ Appellant identifies ARM Limited as the real party in interest. App. Br. 3. We take Official Notice that Softbank Group Corp. acquired ARM Holdings PLC in September 2016.

THE INVENTION

The disclosed and claimed invention is directed to a video decoder with a programmable inverse transform unit. Abstract; Spec. 1:3–5.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A data processing apparatus configured to perform video decoding operations on blocks of video data, the data processing apparatus comprising:

a programmable inverse transform unit configured to perform an inverse transform operation on a set of input values in response to a sequence of instructions,

said programmable inverse transform unit comprising a first execution path and a second execution path arranged to perform data operations to implement said inverse transform operation, wherein said data operations performed by said first and second execution path are configured in dependence on said sequence of instructions,

wherein said programmable inverse transform unit is configured to operate in a first mode in which each instruction in said sequence of instructions is interpreted using a first instruction length and to cause said first execution path and said second execution path to be configured independently of each other,

and said programmable inverse transform unit is configured to operate in a second mode in which each instruction in said sequence of instructions is interpreted using a second instruction length, said second instruction length is shorter than said first instruction length, and to cause said second execution path to be configured in dependence on a configuration of said first execution path.

REFERENCES

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

Nakagawa	US 5,737,256	Apr. 7, 1998
Ku	US 2004/0024992 A1	Feb. 5, 2004
Hsiun	US 2006/0280374 A1	Dec. 14, 2006

REJECTIONS

A. Claims 1, 6–17, 20, and 23–33 stand rejected under pre-AIA 35 U.S.C. § 102(b) as being anticipated by Hsiun. Final Act. 4–11.

B. Claims 2–5, 18, and 19 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Hsiun and Nakagawa. Final Act. 12–15.

C. Claims 21 and 22 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Hsiun and Ku. Final Act. 15–16.

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 persuaded by Appellant’s arguments that the Examiner erred.

Appellant argues the Examiner erred in finding Hsiun teaches “a first mode in which each instruction in said sequence of instructions is interpreted using a first instruction length” and “a second mode in which each instruction in said sequence of instructions is interpreted using a second instruction length” where the “second instruction length is shorter than said first instruction length” as recited in claim 1:

Central to the Final Rejection is the unsupported conclusion that an 8-point algorithm “implicitly has an instruction length” and that “the 4-point algorithm 718 implicitly has an instruction length (second instruction length) . . . being shorter than [the instruction length of the 8-point algorithm].” (See page 5 of the Final Rejection). The algorithms in the Hsiun reference may have different numbers of instructions, but there is no disclosure in Hsiun that there is any variation in **instruction length**. This is an important distinction and a key deficiency of Hsiun as a reference.

The Examiner refers to [0056-60] in Hsiun. In the context of Hsiun, a person of ordinary skill in the art (POSA) would understand that data corresponds to operand values to be manipulated and that instructions are not the same thing as data. An 8x8 block and 4x4 block are different size input data operands, but a POSA would certainly not view the 8x8 block and 4x4 block as different length instructions. Nor does the Examiner provide any evidence to support that the different size data blocks in Hsiun are instructions. Having different modes of operation that require different size input data blocks is not a disclosure of different length instructions.

App. Br. 8; *see also* Reply Br. 2–4.

The Examiner finds Hsiun discloses a “second instruction length [that] is shorter than said first instruction length.” As recited in claim 1. Final Act. 5 (citing Hsiun ¶¶ 56–60, Fig. 7). More particularly, the Examiner finds that “the 4-point operations (instruction) requires less data than the 8-point operations, therefore it has shorter instruction length.” *Id.*; *see also* Ans. 16 (“[T]he 4-point algorithm (instruction) requires less data than the 8-point algorithm, therefore it has a shorter instruction length to be executed by a processor in order to speed up the process in the speed-up mode.”).

We have reviewed the sections of Hsiun relied on by the Examiner (Hsiun ¶¶ 56–60, Fig. 7) and determine that the Examiner’s finding is not

supported by Hsiun for the reasons set forth by Appellant at Appeal Brief 8–9 and Reply Br. 2–4. On this record, we find speculation would be required to affirm the Examiner’s findings. We decline to engage in speculation.

Because we agree with at least one of the dispositive arguments advanced by Appellant, we need not reach the merits of Appellant’s other arguments.

Accordingly, we reverse the Examiner’s rejection of claim 1, along with the rejection of claims 32 and 33, which recite limitations commensurate in scope to the disputed limitations discussed above, and dependent claims 6–17, 20, and 23–31. Regarding the § 103 rejections (rejections B and C), the Examiner has not shown that either of the secondary references (Nakagawa (rejection B) and Ku (rejection C)) overcomes the aforementioned deficiency of Hsiun. Therefore, we reverse rejection B of dependent claims 2–5, 18, and 19 and rejection C of dependent claims 21 and 22.

DECISION

For the above reasons, we reverse the Examiner’s decision rejecting claims 1, 6–17, 20, and 23–33 under § 102.

For the above reasons, we reverse the Examiner’s decisions rejecting claims 2–5, 18, 19, 21, and 22 under § 103.

REVERSED