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Intellectual Property and Licensing
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KAI WANG, YAN LI, MANIVEL SETHU, PRADEEP MURUGANANDAM, and FRANCOIS MARTIN

Appeal 2018-006088
Application 13/813,293[1]
Technology Center 2400

Before MAHSHID D. SAADAT, ALLEN R. MACDONALD, and JOHN P. PINKERTON, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Non-Final Rejection of claims 1–12 and 14–17, which constitute all the claims pending in this application. Claim 13 is cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Appellants fail to identify the real party in interest in their Appeal Brief as required by 37 C.F.R. §41.37(c)(1)(i). An assignment for the patent application has been recorded with the Patent and Trademark Office at Reel 042762, Frame 0145, which indicates the patent application is assigned to NXP B.V.

STATEMENT OF THE CASE

Introduction

Appellants' described and claimed invention relates generally to a down-sampling video player, a decoder forming part of a video player, and a method for down-sampling video data. *See* Spec. 1:3–4.[2]

Claim 1 is representative and reads as follows (with the disputed limitations *emphasized*):

> 1. A method of decoding video data, encoded according to a first standard, comprising:
>
> receiving and down-sampling, in a video decoder, Discrete Cosine Transform (DCT) video data in a frequency domain;
>
> carrying out, in the video decoder, a motion compensation step on the down-sampled data in the frequency domain after removal of high frequency DCT coefficients;
>
> receiving the motion compensated data in a video renderer;
>
> *transforming, in the video renderer, with an Inverse Discrete Cosine Transform (IDCT), the motion compensated data to the spatial domain after the motion compensation step has been performed in the video decoder*, wherein the motion compensated data remains encoded according to the first standard; and
>
> sending the transformed data from the video renderer to a display.

Supp. App. Br. 2 (Claims App.).

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[2] Our Decision refers to the Non-Final Office Action mailed October 3, 2017 ("Non-Final Act."), Appellants' Appeal Brief filed Jan 3, 2018 ("App. Br."), Supplemental Appeal Brief filed February 2, 2018 ("Supp. App. Br.") and Reply Brief filed May 25, 2018 ("Reply Br."), the Examiner's Answer mailed May 10, 2018 (Ans."), and the original Specification filed January 30, 2013 ("Spec.").

Rejections on Appeal

Claims 1, 2, 4, 7, 8, 10–12, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (US 2005/0169377 A1; published Aug. 4, 2005) ("Lin"), in view of Cho et al. (US 2009/0232198 A1; published Sept. 17, 2009) ("Cho"), and further in view of Pearlstein et al. (US 2002/0110197 A1; published Aug. 15, 2002) ("Pearlstein"). Non-Final Act. 4–9.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin, Cho, Pearlstein, and further in view of Karczewicz et al. (US 2004/0066974 A1; published Apr. 8, 2004) ("Karczewicz"). Non-Final Act. 9–10.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin, Cho, Pearlstein, and further in view of Fernandes (US 2005/0058201 A1; published Mar. 17, 2005). Non-Final Act. 10–11.

Claims 6 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin, Cho, Pearlstein, and further in view of Kim (US 2005/0013374 A1; published Jan. 20, 2005). Non-Final Act. 11–13.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin, Cho, Pearlstein, and further in view of Srinivasan (US 2006/0126955 A1; published June 15, 2006). Non-Final Act. 13–14.

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin, Cho, and further in view of Christoffersen et al. (US 2009/0003447 A1; published Jan. 1, 2009) ("Christoffersen"). Non-Final Act. 14–15.

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments in the Appeal Brief (*see* App. Br. 4–12) and the Reply Brief (*see* Reply Br. 1–3), and are not persuaded the Examiner has erred. Unless otherwise noted, we adopt as our own the findings and reasons set forth by the Examiner in the Office Action from which this appeal is taken (Non-Final Act. 2–14), and in the Examiner's Answer (Ans. 2–17), and we concur with the conclusions reached by the Examiner. For emphasis, we consider and highlight specific arguments as presented in the Appeal Brief and Reply Brief.

Appellants argue the combination of cited references fails to teach or suggest "transforming, in the video renderer, with an Inverse Discrete Cosine Transform (IDCT), the motion compensated data to the spatial domain after the motion compensation step has been performed in the video decoder," as recited in claim 1, and similarly recited in claim 12. *See* Supp. App. Br 5; *see also* Reply Br. 1. As argued by Appellants, while Cho discloses IDCT, Cho fails to disclose "transforming . . . **motion compensated data back to a spatial domain after** [a] motion compensation step has been performed" because "Cho discloses 'motion estimation and compensation' in a **spatial** domain." *See* App. Br. 5 (citing Cho ¶ 39) (emphasis added); *see also* Reply Br. 2. Appellants further argue Cho discloses motion estimation and compensation performed in a decoder rather than the claimed "video renderer," and that the Examiner's interpretation of the claimed "video renderer" as reading on Cho's decoder is unreasonably broad. *See* App. Br. 5–6 (citing Cho ¶ 66); *see also* Reply Br. 2–3. Appellants also argue Pearlstein teaches away from the claimed subject

matter because Pearlstein's IDCT circuit does not use motion compensated data. *See* App. Br. 5–6 (citing Pearlstein, Fig. 1); *see also* Reply Br. 3. Appellants further argue Pearlstein's IDCT circuit is located in a decoder rather than a video renderer. *See* App. Br. 6; *see also* Reply Br. 3.

We are not persuaded of Examiner error. Appellants' argument that neither Cho nor Pearlstein discloses performing motion compensation in a frequency domain is not persuasive because the argument attacks the references individually rather than the combination of references. One cannot show non-obviousness by attacking references individually when the rejection is based on a combination of references. *See In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *see also In re Keller*, 642 F.2d 413, 425 (CCPA 1981). More specifically, the Examiner relied upon Lin, rather than Cho or Pearlstein, for teaching a decoder that performs motion compensation on down-sampled input in a frequency domain. *See* Non-Final Act. 4–5 (citing Lin ¶¶ 36–38). The Examiner relied upon Cho for teaching a decoding process that includes reconstructing a residual image using an IDCT of received image data, and further relied upon Pearlstein for teaching an IDCT circuit that outputs decoded video data to a display device. *See* Non-Final Act. 5 (citing Cho ¶ 81; Pearlstein ¶¶ 63, 66). Appellants' argument fails to persuasively show error in the Examiner's finding that it would have been obvious to one of ordinary skill in the art to modify the decoder of Lin to first perform the motion compensation on the down-sampled data as disclosed in Lin and then subsequently perform the IDCT on the motion-compensated data as disclosed in Cho and Pearlstein after the motion compensation has been performed.

Appellants' argument that Cho and Pearlstein each teach a decoder rather than a video renderer, and that the Examiner's interpretation of the claimed "video renderer" as reading on the decoder disclosed in either Cho or Pearlstein is unreasonably broad, is also not persuasive. A claim under examination is given its broadest reasonable interpretation consistent with the underlying specification. *See In re American Academy of Science Tech. Ctr.,* 367 F.3d 1359, 1364 (Fed. Cir. 2004). In the absence of an express definition of a claim term in the specification or a clear disclaimer of scope, the claim term is interpreted as broadly as the ordinary usage of the term by one of ordinary skill in the art would permit. *See In re ICON Health & Fitness, Inc.,* 496 F.3d 1374, 1379 (Fed. Cir. 2007); *see also In re Morris,* 127 F.3d 1048, 1054 (Fed. Cir. 1997). Although Appellants argue the Examiner's interpretation of the term "video renderer" encompassing a decoder is inconsistent with the ordinary and customary meaning of the term, Appellants fail to provide any persuasive evidence regarding the ordinary and customary meaning of "video renderer." Mere attorney arguments and conclusory statements that are unsupported by factual evidence are entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997).

Similarly, despite also arguing that the Examiner's interpretation of the term "video renderer" is inconsistent with how one of ordinary skill in the art would interpret the term, Appellants also fail to provide any persuasive evidence regarding how one of ordinary skill in the art would interpret the term. Even further, despite also arguing the Examiner's interpretation of the term "video renderer" is inconsistent with the use of the term in Appellants' Specification, Appellants do not identify any portion of

Appellants' Specification that expressly defines "video renderer" in a manner that is necessarily separate and distinct from a decoder, or otherwise disclaims the scope of the term "video renderer" as excluding a decoder. Thus, Appellants have not persuasively established that the Examiner's interpretation of "video renderer" is erroneous.

Accordingly, we sustain the Examiner's rejection of claims 1 and 12 for obviousness under 35 U.S.C. § 103(a). We also sustain the Examiner's rejection of claims 2–11 and 14–17, which depend from one of claims 1 and 12, and which are not argued separately.

DECISION

We affirm the Examiner's rejection of claims 1–12 and 14–17 under 35 U.S.C. § 103(a).

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).

AFFIRMED