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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KRISHNAN RAJAMANI
and VINCENT KNOWLES JONES

Appeal 2016-000804
Application 13/239,823
Technology Center 2400

Before CAROLYN D. THOMAS, JOHN R. KENNY, and
AARON W. MOORE, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1, 3–9, 11–17, 19–25, and 27–32, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

THE INVENTION

The application is directed to “methods for processing display data in a pipelined manner,” where “[a]ccording to certain aspects, a slice size may be selected in a manner that allows for efficient pipelining, which may help achieve acceptable medium access control (MAC) efficiency and reduced latency.” (Abstract.) Claim 1, reproduced below, is illustrative:

1. A method for wireless communications, comprising:

selecting a slice dimension for dividing a video frame into slices, wherein the slice dimension is selected based at least on one of a Medium Access Control (MAC) efficiency goal or a latency goal;

configuring a processing pipeline, based on the selected slice dimension; and

encoding a first slice of the video frame in a first stage of the processing pipeline while transmitting a second, previously encoded, slice of the video frame from a second stage of the processing pipeline.

¹ Appellants identify Qualcomm Incorporated as the real party in interest. (See App. Br. 3.)

THE REFERENCES

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

Watanabe	US 2004/0190609 A1	Sept. 30, 2004
Garudadri et al.	US 2005/0259613 A1	Nov. 24, 2005
Pallister	US 2006/0072831 A1	Apr. 6, 2006

Pierre Ferré et al., *Robust Video Transmission Over Wireless LANs*, IEEE Transactions on Vehicular Technology, Vol. 57, No. 4, pp. 2596–2602 (July 2008)

Lin X. Cai et al., *Supporting voice and video applications over IEEE 802.11n WLANs*, Wireless Networks, Vol. 15, No. 4, pp. 443–454 (2009)

THE REJECTIONS

1. Claims 1, 4–8, 9, 12–16, 17, 20–24, 25, and 28–32 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Pallister, Ferré, and Cai. (*See* Final Act. 3–12.)
2. Claims 1, 9, 17, and 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Pallister, Ferré, and Garudadri. (*See* Final Act. 12–16.)
3. Claims 1, 9, 17, and 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Pallister, Ferré, and Watanabe. (*See* Final Act. 16–21.)

ANALYSIS

In the first of the three rejections, the Examiner relies on Cai as providing a teaching or suggesting that “the slice dimension [be] selected based at least on one of a Medium Access Control (MAC) efficiency goal or a latency goal.” The Examiner explains that “it is obvious the efficiency of one of the transmission layer, MAC layer, would depend on the optimum

fragmentation size for the efficient transmission of the video over the network, e.g., optimum slice size can help to improve the overall performance of the transmission.” (Final Act. 2–3.)

Appellants acknowledge “*Cai* discloses that the slice of a size [sic] is based on the maximum data carrying capacity of a packet for a given protocol, and that the slice of a size [sic] must be less than the maximum data carrying capacity of the packet.” (App. Br. 9.) They argue, however, that

Cai is silent as to selecting a slice dimension based on at least one of a *MAC efficiency goal* (e.g., a goal set “to ensure the amount of display data sent to the sink device is sufficiently large compared to the messaging overhead;” *see, e.g.*, paragraph [0051] of the present application) or a *latency goal* (e.g., a goal set “to ensure latency does not exceed a tolerable amount;” *see, e.g.*, paragraph [0051] of the present application).

(App. Br. 9.)

We find that the Specification does not define or limit “MAC efficiency goal” or “latency goal” to any particular parameter, but rather describes these terms somewhat broadly, generally, and in permissive and exemplary terms, i.e., “may be.” As such, we conclude that the broadest reasonable construction of those terms encompasses any desired MAC-related efficiency or any desired latency, including any preferred or optimal efficiency or latency (*see* Spec. ¶ 49). We further agree with the Examiner that, in light of *Cai*’s teaching regarding selectable slice dimensions, it would have been obvious to select a slice dimension with a particular MAC efficiency or latency in mind. For example, it would have been obvious to select a slice dimension that results in minimal latency. Obviousness turns not on the precise language of the references but, instead, on what the

references, when considered together, “would have suggested to one of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417–19 (2007).

For these reasons, we sustain the rejection of claims 1, 3–9, 11–17, 19–25, and 27–32 as obvious over Pallister, Ferré, and Cai.

Because our resolution of the first rejection is dispositive as to all claims on appeal, it is not necessary to address the other grounds of rejection entered by the Examiner. *See In re Hyon*, 679 F.3d 1363, 1367 (Fed. Cir. 2012) (affirmance of rejection of all claims under Section 103(a) made it unnecessary to reach other grounds of rejection); *Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (having decided a single dispositive issue, the ITC was not required to review other matters decided by the presiding officer). Therefore, we do not reach the rejections based on Garudadri and Watanabe.

DECISION

The rejections of claims 1, 3–9, 11–17, 19–25, and 27–32 are affirmed.

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