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14/910,935	02/08/2016	Hideaki Takahashi	17470/539001	1105

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OSHA LIANG L.L.P. TWO HOUSTON CENTER 909 FANNIN, SUITE 3500 HOUSTON, TX 77010	SCHEIBEL, ROBERT C

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte HIDEAKI TAKAHASHI,
WURI ANDARMAWANTI HAPSARI,
TOORU UCHINO, and SADAYUKI ABETA

———

Appeal 2019-005895
Application 14/910,935
Technology Center 2400

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Before ERIC B. CHEN, JEREMY J. CURCURI, and
DAVID J. CUTITTA, II, *Administrative Patent Judges.*

CURCURI, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claim 2. We have jurisdiction under
35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word Appellant to refer to "applicant" as defined in 37 C.F.R.
§ 1.42(a). Appellant identifies the real party in interest as NTT DOCOMO,
Inc. Appeal Br. 4.

CLAIMED SUBJECT MATTER

The claims are directed to "a mobile station and a radio base station."

Spec. ¶ 1. Claim 2 is the only pending claim, and is reproduced below:

2.   A mobile station configured to communicate with a first radio base station using a first component carrier and a second radio base station using a second component carrier, the mobile station comprising:

a receiver that receives a logical channel identification (LCID) from the first radio base station or the second radio base station;

a memory that stores the LCID in association with a first MAC entity or a second MAC entity;

a processor coupled to the memory, the processor establishing:

the first MAC entity for the first radio base station; and

the second MAC entity for the second radio base station independent from the first MAC entity,

wherein each of the first MAC entity and the second MAC entity is configured to determine whether or not a MAC-PDU received via a physical layer function is addressed to a logical channel managed by the MAC entity itself, based on a LCID included in the MAC-PDU header,

wherein the mobile station performs carrier aggregation communication with the first component carrier under the first radio base station and the second component carrier under the second radio base station, and

wherein the mobile station uses the LCID in the MAC-PDU header to determine an appropriate one of the first MAC entity and the second MAC entity during the carrier aggregation communication based on the stored LCID.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Pelletier	US 2014/0056243 A1	Feb. 27, 2014
Park	US 2015/0181571 A1	Jun. 25, 2015

REJECTION

Claim 2 is rejected under 35 U.S.C. § 103 as obvious over Pelletier and Park. Final Act. 6–10.

OPINION

The Obviousness Rejection of Claim 2 over Pelletier and Park

The Examiner finds Pelletier and Park teach all limitations of claim 2. Final Act. 7–10; *see also* Ans. 4–9.

The Examiner finds Pelletier teaches most limitations of claim 2. Final Act. 7–9. In particular, the Examiner finds "Pelletier discloses throughout that the WTRU (mobile station) determines whether a particular MAC instance handles a given PDU based on the associated logical channel." Final Act. 8 (citing Pelletier ¶¶ 9, 111, 112, 161, 165). However, the Examiner further finds "Pelletier does not explicitly mention that this logical channel is carried in a MAC header." Final Act. 9.

The Examiner finds "Park discloses the use of the LCID in the MAC-PDU header." Final Act. 9 (citing Park ¶ 211).

The Examiner reasons

> it would have been obvious to one of ordinary skill in the art to modify Pelletier to utilize the LCID in the MAC-PDU header to indicate the MAC instance corresponding to a given MAC-PDU. The rationale for doing so would have been to utilize

3

existing header structures and thus to minimize the changes to
the standard required to support multiple MAC instances.

Final Act. 9–10.

Appellant contends Pelletier and Park do not teach "the mobile station uses the LCID in the MAC-PDU header to determine an appropriate one of the first MAC entity and the second MAC entity during the carrier aggregation communication based on the stored LCID," as recited in claim 2. *See* Appeal Br. 11–19; *see also* Reply Br. 2–4.

In support of this contention, Appellant presents numerous arguments. For example, Appellant argues the following:

"Pelletier teaches the use of Information Elements (IEs) provided from a central network controller in order to map the MAC instances." Appeal Br. 11. "With respect to a 'logical channel identity,' paragraphs [0169]–[0171] of Pelletier describe how the logical channel identity can be associated with the MAC instance using the IE." Appeal Br. 13.

> Pelletier does not suggest using the logical channel identity
> instead of an IE. Furthermore, Pelletier does not disclose
> mapping the data from the eNBs to the appropriate MAC
> instance *based on* the logical channel. Pelletier merely discloses
> that one or more logical channels may be associated with MAC
> instances based on the IE.

Appeal Br. 13.

"In Park, multiple MAC instances are not disclosed, and the MAC layer merely conventionally maps the logical channels and transport channels." Appeal Br. 14.

> Pelletier teaches the use of IEs, *not existing header structures*,
> and Park merely discloses conventional header structures in a
> less evolved (*i.e.*, single base station) system. Therefore, neither

> Pelletier nor Park disclose or suggest using existing header structures in a multiple base station environment as claimed. Furthermore, neither Pelletier nor Park mention minimizing changes to support multiple MAC instances.

Appeal Br. 17.

"[M]odifying Pelletier in the manner postulated by the Examiner would destroy the primary references objectives (i.e., the use of IEs), and thereby change its principle of operation." Appeal Br. 18.

We do not see any error in the Examiner's contested findings. We concur with the Examiner's conclusion of obviousness.

Pelletier discloses "[w]hen a segregated UL transmission scheme is utilized, a given radio bearer may be mapped to *a given logical channel that is associated with one of the MAC instances*." Pelletier ¶ 161 (emphasis added). Thus, we determine Pelletier teaches the *association* of logical channels to MAC entities. However, we do not see an explicit teaching of the logical channel identification in the MAC-PDU header.

Park discloses "[t]he MAC header is of variable size and consists of the following fields: LCID field: The Logical Channel ID field identifies the logical channel instance of the corresponding MAC SDU or the type of the corresponding MAC control element or padding for the DL-SCH, UL-SCH and MCH respectively." Park ¶ 210–211. Thus, we determine Park teaches the logical channel identification in the MAC-PDU header.

Thus, the collective teachings of Pelletier and Park teach "the mobile station uses the LCID in the MAC-PDU header" (*see* Park ¶¶ 210–211 (disclosing logical channel identification in the MAC-PDU header)) "to determine an appropriate one of the first MAC entity and the second MAC entity during the carrier aggregation communication based on the stored

LCID" (*see* Pelletier ¶ 161 (disclosing association of logical channels to MAC entities)) as recited in claim 2.

The majority of Appellant's arguments focus on the individual teachings of Pelletier and Park. These arguments are unpersuasive of any error because the rejection is based on the combined teachings of the references.

Further, the Examiner has articulated a reason to combine the references that is rational. *See* Final Act. 9–10 ("to utilize existing header structures and thus to minimize the changes to the standard required to support multiple MAC instances"). We do not agree with Appellant that the principle of operation in Pelletier is destroyed by the proposed combination. *See* Appeal Br. 18.

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* [*v. Ag Pro, Inc.*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock*[*, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969)] are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 417 (2007).

Park's logical channel identification in the MAC-PDU header is readily-applicable to Pelletier's system because Pelletier discloses association of logical channels to MAC entities. In short, using the LCID in the MAC-PDU header would have been a predictable use of prior art

elements according to their established functions—an obvious improvement. *See KSR*, 550 U.S. at 417.

Because Appellant has not demonstrated that the Examiner's proffered combination would have been "uniquely challenging or difficult for one of ordinary skill in the art," we agree with the Examiner that the proposed modification would have been within the purview of the ordinarily skilled artisan. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418).

We, therefore, sustain the Examiner's rejection of claim 2.

CONCLUSION

The Examiner's decision to reject claim 2 is affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
2	103	Pelletier, Park	2	

AFFIRMED