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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TECK HU, MATTHEW BAKER, and FANG-CHEN CHENG

Appeal 2015-002399
Application 13/042,797
Technology Center 2400

Before ERIC S. FRAHM, JOHN A. EVANS, and JOHN D. HAMANN,
Administrative Patent Judges.

EVANS, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants¹ seek our review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of Claims 1–3, 5–10, 12–15, 17–19, and 21–24. App. Br. 9. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.²

¹ The Appeal Brief identifies Alcatel-Lucent, USA, Inc., as the real party in interest. App. Br. 3.

² Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed Oct. 23, 2014, "App. Br."), the Reply Brief (filed Dec. 10, 2014, "Reply Br."), the Examiner's Answer (mailed Nov. 19, 2014, "Ans."), the Final Action (mailed June 13, 2014, "Final Act."), and the Specification (filed Mar. 8, 2011, "Spec.") for their respective details.

STATEMENT OF THE CASE³

The claims relate to a method for uplink control channel allocation for a relay backhaul link. *See* Abstract.

Invention

Claims 1, 9, 14, and 19 are independent. An understanding of the invention can be derived from a reading of exemplary Claim 1, which is reproduced below with some formatting and emphasis added:

1. A method, comprising:

allocating, at an access node, resource blocks in a subframe for a backhaul downlink control channel between the access node and a relay station,

wherein the resource blocks are allocated from a first portion of the subframe that is time-division-multiplexed with a second portion of the subframe allocated to a downlink control channel between the relay station and at least one access terminal, and

wherein the backhaul downlink control channel is frequency-division-multiplexed with a downlink shared channel; and

transmitting control information from the access node in the resource blocks.

Reference and Rejection

Claims 1–3, 5–10, 12–15, 17–19, and 21–24 stand rejected under 35 U.S.C. § 102(e) as anticipated by Palanki, *et al.*, (US 2010/0080139 A1, filed Sept. 28, 2009).⁴ Final Act. 2–10.

³ Because we write for the Real Party, familiarity with the background of this case is assumed and presented herein only to the extent necessary to provide context for the analysis that follows. *See U.S. Ethernet Innovations, LLC v. Acer, Inc.*, 2015-1640, 2015-1641, 2016 WL 1622309, at *1 n.1 (Fed. Cir. Apr. 25, 2016).

⁴ Palanki claims priority from a series of provisional applications filed in

ANALYSIS

We have reviewed the rejections of Claims 1–3, 5–10, 12–15, 17–19, and 21–24 in light of Appellants’ arguments that the Examiner erred

We consider Appellants’ arguments *seriatim*, as they are presented in the Appeal Brief, pages 5–9.

ANTICIPATION

Appellants argue these claims as a group and contend they are each patentable in view of the limitations of Claim 1. App. Br. 9.

A backhaul downlink control channel is frequency-division-multiplexed with a downlink shared channel.

Independent Claim 1 recites, *inter alia*, “wherein the backhaul downlink control channel is frequency-division-multiplexed with a downlink shared channel.” Independent Claims 9, 14, and 19 recite commensurate limitations. The Examiner finds Palanki discloses this limitation in Figure 10 and paragraphs 86 and 87. Final Act. 2–3.

Appellants contend Palanki does not disclose these limitations. App. Br. 6. Appellants read Palanki as disclosing that control and data symbols are segregated such that the eNB “may or may not transmit TDM control symbols in the first M symbol periods” and “may transmit new control channels as well as data in the remaining symbol periods.” *Id.* (citing Palanki, ¶ 87).

The Examiner finds that Palanki “does not explicitly disclose that frequency-division multiplexing is the type of multiplexing that is used.”

2008. Palanki (¶ 1).

Ans. 13. However, the Examiner finds Palanki discloses that an eNB transmits Reference Signals frequency-division multiplexed with downlink shared data channels in the “Data Portions” of the subframes. *Id.* In view thereof, the Examiner finds a person of ordinary skill in the art “would have understood” that the combined transmission of the backhaul downlink control channels together with the downlink shared channels and reference signals during the data portion of the subframe “could be accomplished by using frequency-division multiplexing.” *Id.*

Appellants contend the Examiner does not provide any evidentiary support for the conclusory finding that one “could” transmit the control channels, the shared downlink channels, and the reference signals during the data portion of a subframe. Reply Br. 2. Appellants argue Palanki explicitly distinguishes between control symbols, data symbols, and reference symbols. Appellants further argue it is erroneous to conclude the disclosure of multiplexing techniques for reference symbols implies the same multiplexing techniques may be used for control symbols. *Id.* at 2–3.

Appellants contend the Examiner is impermissibly engaging in hindsight reasoning in order to modify Palanki to conform to the disclosure of the claims. *Id.* at 3. We agree.

The Examiner finds Palanki “does not explicitly disclose that frequency-division multiplexing is the type of multiplexing that is used.”

Ans. 13. To supply the limitation found to be missing, the Examiner finds a person of ordinary skill in the art “would have understood” that the Palanki reference might be modified such that the combined transmission of the backhaul downlink control channels together with the downlink shared channels and reference signals during the data portion of the subframe

“could be accomplished by using frequency-division multiplexing.” *Id.* However, articulating a “teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference . . . to arrive at the claimed invention” is a standard for a conclusion of obviousness under 35 U.S.C. § 103. *See* MPEP § 2143(G). A finding of obviousness is inappropriate to the present anticipation rejection under 35 U.S.C. § 102.

“It is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it. Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates.” *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002) (citations and internal quotation marks omitted). The Examiner’s “could be accomplished” finding sounds in inherent anticipation. Where the Examiner finds a reference inherently discloses a claim element, the Examiner bears the burden of providing reasonable proof that a claim limitation is an inherent characteristic of the prior art. *In re Best*, 562 F.2d 1252, 1254–55 (CCPA 1977); *see also Crown Operations Int’l, LTD v. Solutia Inc.*, 289 F.3d 1367, 1377 (Fed. Cir. 2002). In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990). The Examiner has not addressed the required proof.

Appeal 2015-002399
Application 13/042,797

DECISION

The rejection of Claims 1–3, 5–10, 12–15, 17–19, and 21–24 under 35 U.S.C. § 103 is REVERSED.

REVERSED