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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* GIL LAVEAN

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Appeal 2015-005526  
Application 11/130,885<sup>1</sup>  
Technology Center 2400

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Before LINZY T. McCARTNEY, JAMES W. DEJMEK, and  
MATTHEW J. McNEILL, *Administrative Patent Judges*.

McNEILL, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 11, 12, 14, 16, and 17, which are all the claims pending in this application.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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<sup>1</sup> According to Appellant, the real party in interest is InterDigital Technology Corporation. App. Br. 3.

<sup>2</sup> Claims 1–10, 13, and 15 have been canceled. App. Br. 3.

## STATEMENT OF THE CASE

### *Introduction*

Appellant's application relates to a system and method of using orthogonal codes and knowledge of the distance between a mobile terminal and a base station to adjust and align the phase of an information channel to achieve orthogonality at the base station. Spec. ¶ 5. Claim 11 is illustrative of the subject matter on appeal and reads as follows:

11. A mobile station comprising:
  - circuitry configured to transmit a sequence;
  - the circuitry further configured, in response to the transmitted sequence, to receive a timing adjustment; and
  - the circuitry further configured to transmit a first signal and a second signal;wherein the first signal has a transmission timing adjusted in response to the received timing adjustment; wherein the second signal includes a pilot signal and does not have a transmission timing adjusted in response to the received timing adjustment.

### *The Examiner's Rejections*

Claims 11, 12, 14, 16, 17 stand rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. Ans. 2–3.

Claims 11, 12, 14, 16, 17 stand rejected under 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Ans. 3.

Claims 11, 12, 14, 16, 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Schilling (US 5,365,544; Nov. 15, 1994), Gilhousen et al.

(US 5,309,474; May 3, 1994), and Davidovici (US 5,627,855; May 6, 1997). Ans. 3–5.

Claims 11, 12, 14, 16, 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gilhousen and Odenwalder et al. (US 5,930,230; July 27, 1999). Ans. 5.

### ANALYSIS

We have reviewed the Examiner’s rejections in consideration of Appellant’s contentions and the evidence of record. Appellant persuades us the Examiner fails to establish the claims are unpatentable.

#### *Written Description*

The Examiner finds the limitation “the second signal includes a pilot signal and does not have a transmission timing adjusted in response to the received timing adjustment” is not described in the Specification and, therefore, constitutes new matter. Ans. 6; Final Act. 2. Appellant argues the Examiner erred because the Specification teaches a second signal, such as a user pilot, that is not adjusted by the receiving timing adjustment. App. Br. 6 (citing Spec. ¶¶ 165, 178, 180). In particular, the Specification teaches a user pilot slaved to the base station pilot, which indicates that there is no timing adjustment for the user pilot. *Id.* (citing Spec. ¶ 180). The Examiner responds by reiterating the rejection without explaining how or why the cited portions of the Specification fail to teach the “second signal” limitation. Ans. 6.

Appellant has persuaded us of Examiner error. The Examiner has failed to establish that the “second signal” limitation is not taught by the

Specification because the Specification teaches a user pilot (the claimed “second signal”) that does not receive a timing adjustment. Accordingly, we do not sustain the rejection of claim 11 under 35 U.S.C. § 112 (pre-AIA), first paragraph, for failing to comply with the written description requirement. We also do not sustain the written description rejection of claims 12, 14, 16, and 17, which contain similar limitations and were rejected for the same reasons. *See* Final Act. 2.

#### *Indefiniteness*

The Examiner finds the limitation “a sequence” is indefinite because “it is unclear what it is constituted for.” Final Act. 3. The Examiner explains in the Answer that the Specification discloses the mobile unit transmits two sequences, such as a random sequence and a synchronization sequence, and therefore the limitation “a sequence” is indefinite. Ans. 6 (citing Spec. ¶ 20, Abstract).

Appellant argues the Examiner erred in finding “a sequence” as recited in claim 11 is indefinite because an ordinarily skilled artisan would understand the meaning of the claimed “sequence,” and the Specification teaches examples of a sequence, including a random sequence, a pseudo-noise sequence, and a pseudo-random sequence. App. Br. 7 (citing Spec. ¶¶ 39, 48).

Appellant has persuaded us of Examiner error. The Examiner finds “a sequence” is indefinite because the Specification provides multiple examples of potential sequences. Ans. 6. However, the Examiner has failed to establish that an ordinarily skilled artisan would fail to understand the scope of the claimed “sequence.” We agree with Appellant that an ordinarily

skilled artisan would understand the plain meaning of the term and the Specification provides examples of the claimed “sequence.” Accordingly, we do not sustain the indefiniteness rejection of claim 11 or claims 12, 14, 16, and 17, which contain similar limitations and were rejected for the same reasons. *See* Final Act. 3.

### *Obviousness*

Appellant argues the Examiner erred in rejecting claim 11 as unpatentable over Schilling, Gilhousen, and Davidovici because an ordinarily skilled artisan would not have been motivated to combine Gilhousen with Schilling or Davidovici and, even if the combination were made, the result would not satisfy the “wherein the second signal includes a pilot signal and does not have a transmission timing adjusted in response to the received timing adjustment” limitation. App. Br. 8–10; Reply Br. 6–8. Appellant argues an ordinarily skilled artisan would not have looked to Gilhousen to modify the teachings of Schilling because Schilling teaches data and pilot signals that are synchronized or, in other words, time aligned. App. Br. 8. Gilhousen, on the other hand, teaches transmitting a voice signal without the use of a pilot signal, stating “[i]f a pilot were used, it would require significantly more power than the voice carrier.” Gilhousen 27:28–36. Gilhousen explains, “[t]his situation is clearly not desirable since overall system capacity would be greatly reduced . . . .” *Id.* Gilhousen states unequivocally that “a modulation capable of efficient demodulation without a pilot signal must be used.” *Id.*

Appellant has persuaded us the Examiner erred in finding an ordinarily skilled artisan would have been motivated to combine Gilhousen

with the teachings of Schilling and Davidovici. As argued by Appellant, Gilhousen teaches transmitting a pilot signal and voice signal is “clearly not desirable” and a modulation without a pilot signal “must be used.” *Id.* The Examiner relies on this particular embodiment of Gilhousen for the teaching of a timing adjustment on a voice signal. *See* Ans. 7 (citing Gilhousen 29:4–33).

Moreover, the Examiner finds Gilhousen teaches “a method and system for reducing interference in the uplink when the mobile transmits *an uplink pilot* by adjusting timing error between the mobile and base station.” Ans. 7 (citing Gilhousen 29:4–33) (emphasis added). As noted above, Gilhousen teaches an uplink pilot should not be used and, therefore, the Examiner’s finding that Gilhousen teaches transmitting an uplink pilot is erroneous.

Accordingly, on this record, we are constrained to reverse the Examiner’s rejection of claim 11 as unpatentable over Schilling, Gilhousen, and Davidovici. We are also constrained to reverse the rejection of claims 12, 14, 16, and 17, which contain similar limitations and were rejected for the same reasons. *See* Final Act. 3–4.

We also do not sustain the rejection of claims 11, 12, 14, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Gilhousen and Odenwalder because, like Schilling, Odenwalder teaches transmitting time-aligned data and pilot signals and, therefore, an ordinarily skilled artisan would not have been motivated to combine Gilhousen and Odenwalder for the same reasons discussed above.

#### DECISION

We reverse the decision of the Examiner to reject claims 11, 12, 14,

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16, and 17 under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement.

We reverse the decision of the Examiner to reject claims 11, 12, 14, 16, and 17 under 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

We reverse the decision of the Examiner to reject claims 11, 12, 14, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Schilling, Gilhousen, and Davidovici. Ans. 3–5.

We reverse the decision of the Examiner to reject claims 11, 12, 14, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Gilhousen and Odenwalder.

REVERSED