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Patrick L. Mixon 3407 W. Country Club Dr # 2021 Irving, TX 75038			AHN, SUNG S	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN DAVID TERRY

Appeal 2017-003897
Application 13/190,478
Technology Center 2600

Before JOHN P. PINKERTON, JON M. JURGOVAN, and
NABEEL U. KHAN, *Administrative Patent Judges*.

KHAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–7 and 20–22. An oral hearing was held on November 7, 2018. A transcript of the hearing will be made of record in due course. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ According to the Appeal Brief, the real party in interest is inventor Dr. John Terry. App. Br. 4.

BACKGROUND

THE INVENTION

According to Appellant, the invention relates to “embedding digital signals and digital information within digital chaos waveforms.” Spec. ¶ 1.

Exemplary independent claim 1 is reproduced below.

1. A method of embedding a data signal in a wireless transmission using a digital chaos sequenced spreading code, comprising:

a. recording a featureless communication waveform having nonlinear dynamics;

b. buffering said featureless communication waveform into distinct segments;

c. sampling said distinct segments to ensure low cross-correlation amongst said samples of distinct segments;

d. grouping samples of said distinct segments at a predefined length and variable quantity;

e. processing at least one group of said group of sampled distinct segments using Gram-Schmidt processing;

f. storing said Gram-Schmidt processed group in a first non-transitory computer readable storage medium;

h. reading out said stored Gram-Schmidt processed group from said first non-transitory computer readable storage medium;

i. spreading said data signal using said read out Gram-Schmidt processed group as a spreading code to create a spreaded data signal;

j. modulating said spreaded data signal; and

k. and transmitting said modulated spreaded data signal.

REFERENCES AND REJECTIONS

1. Claims 4 and 5 stand rejected under 35 U.S.C. § 112 (pre-AIA) as indefinite. Final Act. 4–5.

2. Claims 1–3, 5, 6, 20, and 21 stand rejected under 35 U.S.C. § 103(a) over Karabinis (US 2009/0003418 A1, Jan. 1, 2009) and Reisinger (US 2002/0070845 A1, June 13, 2002). Final Act. 5–13.

3. Claims 4, 7, and 22 stand rejected under 35 U.S.C. § 103(a) over Karabinis, Reisinger, and Agulnik (US 2010/0248680 A1, Sept. 30, 2010). Final Act. 13–14.

DISCUSSION

REJECTION UNDER 35 U.S.C. § 112

The Examiner rejects claims 4 and 5 as indefinite. *See* Final Act. 4–5. Appellant does not address this rejection. Accordingly, we summarily sustain the Examiner’s rejection of these claims.

REJECTIONS UNDER 35 U.S.C. § 103(A)

Claim 1 recites “recording a featureless communication waveform having nonlinear dynamics.” Appellant argues “since the ‘seed’ waveforms of Karabinis must conform to a ‘time-bandwidth constraint,’ then underlying dynamics follow a linear relationship due to the fact that an increase in time must result in identical decrease bandwidth to meet the time-bandwidth constraint.” App. Br. 8. Therefore, according to Appellant, “Karabinis teaches a waveform having linear dynamics and not a featureless waveform having nonlinear dynamics.” App. Br. 8.

The Examiner responds that, according to U.S. Patent No. 6,882,689, cited in the Background section of Appellant's Specification, a non-repeating pseudo random code teaches a chaotic code. Ans. 3–4. The Examiner concludes that “[t]herefore, the pseudo-random waveform (featureless waveform) generator disclosed by Karabinis disclose[s] the featureless waveform having nonlinear dynamics.” Ans. 4. Although the Examiner concludes that Karabinis teaches a waveform having nonlinear dynamics because it teaches a pseudo-random waveform, we find the Examiner does not sufficiently connect these two concepts. In other words, the Examiner does not sufficiently explain why a pseudo-random waveform necessarily teaches a waveform having nonlinear dynamics.

Constrained by the record before us, for the aforementioned reason, we do not sustain the Examiner's rejection of independent claim 1 nor of independent claims 5 and 20, which contain similar limitations. The pending dependent claims stand with their respective independent claims.

DECISION

The Examiner's rejection of claims 4 and 5 under 35 U.S.C. § 112 is affirmed.

The Examiner's rejections of claims 1–7 and 20–22 under 35 U.S.C. § 103(a) is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended. *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART