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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEFANO SORRENTINO

Appeal 2018-006461
Application 14/536,835
Technology Center 2600

Before MAHSHID D. SAADAT, BETH Z. SHAW, and
MATTHEW J. McNEILL, *Administrative Patent Judges*.

SHAW, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant¹ appeals under 35 U.S.C. § 134 from a rejection of claims 1–42. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a triggering of direct discovery signals. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of operation of a wireless device to enable Device-to-Device, D2D, discovery, comprising:

receiving, from a controlling node of the wireless device in a cellular communications network, the controlling node being different from the wireless device, at least one trigger for starting D2D discovery; and

transmitting multiple transmission instances of a discovery signal of the wireless device for a D2D discovery event in response to the at least one trigger using resources selected from a group consisting of:

different time resources, different frequency resources, different code resources, different time and frequency resources, different time and code resources, different frequency and code resources, and different time, frequency, and code resources.

REJECTIONS

The Examiner made the following rejections:

Claims 1–16, 18–36, and 38–42 are rejected under 35 U.S.C. § 103 as being unpatentable over Hakola et al. (US 2013/0013926 A1, pub. Jan. 10, 2013) (“Hakola”) in view of Park et al. (US 2009/0327395 A1, pub. Dec. 31, 2009) (“Park”).

¹ Appellant is the Applicant, Telefonaktiebolaget L M Ericsson (publ), the real party in interest. App. Br. 1.

Claims 17 and 37 are rejected under 35 U.S.C. § 103 as being unpatentable over Hakola, Park, and Li et al. (US 2009/0016249 A1, pub. Jan. 15, 2009) (“Li”).

CONTENTIONS AND ANALYSIS

Appellant argues Park does not disclose or suggest that a wireless device transmits multiple transmission instances of a discovery signal for a D2D discovery event in response to a trigger. App. Br. 6. In particular, Appellant argues that Park discloses that the discovery signal is repeated at a defined periodicity, but this does not occur in response to a trigger. *Id.* at 7.

We are not persuaded by Appellant’s arguments. The Examiner has provided a comprehensive response to Appellant’s arguments in the Final Rejection and Answer, which we agree with and adopt for the following reasons.

The Examiner finds Park teaches “multiple transmission instances of a discovery signal occur in response to a trigger” because the times (i.e., t_0 , t_1 , t_2) shown in Park’s Figure 6 illustrate various trigger inputs for the time resources, frequency resources, and code resources. Ans. 3. We agree with the Examiner’s findings and conclusions.

Park’s Figure 6 is reproduced below.

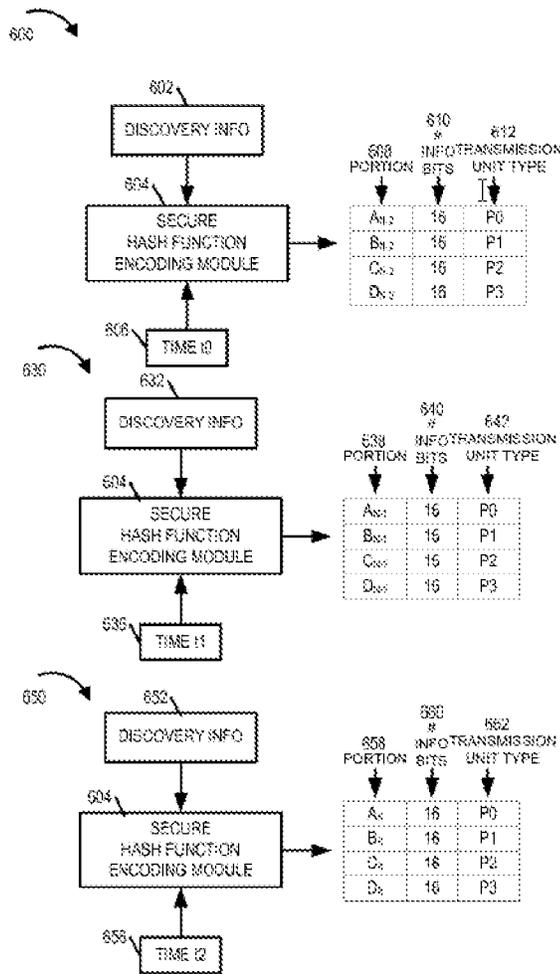


FIGURE 6

Figure 6 of Park “illustrates a securing hash function encoding module 604 processing input discovery information which generates encoded information.” Park ¶ 37. As illustrated in Park’s Figure 6, a time value of t0, t1, or t2 is input into the encoding module to determine the various transmissions portions and “generates a set of output information.” Ans. 6. Thus, the Examiner concludes, and we agree, Park’s time value teaches the claimed “at least one trigger.” *Id.* The Examiner further finds Park explains

that the time value is used in part to generate output information from the ordered transmission portions. *Id.* (citing Park ¶ 38).

Appellant argues for the first time in the Reply Brief that the set of output information is not the same as a transmission instance. Reply Br. 3–4. We are not persuaded by this argument because Park explains that “[t]he output encoded information is mapped to portions, each portion being *communicated via a transmission unit.*” Park ¶ 37 (emphasis added); Fig. 6.

We are also not persuaded by Appellant’s argument in the Reply Brief that “multiple triggers, as opposed to a single trigger, are used to communicate the portions A_{N-2} , B_{N-2} , C_{N-2} , and D_{N-2} .” Reply Br. 4. Claim 1 does not recite a “single” trigger, but rather, recites “at least one trigger,” and thus, this argument is not commensurate in scope with claim 1.

Appellant also argues that Figure 7 of Park does not teach that a wireless device transmits multiple transmission instances of a discovery signal for a D2D discovery event in response to a trigger. Reply Br. 4. However, the Examiner only pointed to Figure 7 to teach *additional* examples of triggers for various transmission of output information. Ans. 3. As explained above, the Examiner has shown how Figure 6 and the corresponding description in Park teach the disputed limitation.

For these reasons, we sustain the Examiner’s rejection of claim 1. Because Appellant has not presented separate patentability arguments or has reiterated substantially the same arguments as those previously discussed for patentability of claim 1 above, claims 2–42 fall therewith. *See* 37 C.F.R. § 41.37(c)(1)(iv).

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Application 14/536,835

DECISION

We affirm Examiner's rejection of claims 1–42.

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) (2009).

AFFIRMED