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26294	7590	03/02/2020	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 1300 EAST NINTH STREET, SUITE 1700 CLEVELAND, OH 44114			BILODEAU, DAVID	
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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* DAVID L. JUZSWIK

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Appeal 2018-003491  
Application 14/295,824  
Technology Center 2600

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Before ST. JOHN COURTENAY III, JENNIFER L. MCKEOWN, and  
NORMAN H. BEAMER, *Administrative Patent Judges*.

BEAMER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–25, which constitute all the claims pending in this application. We have jurisdiction over the pending rejected claims under 35 U.S.C. § 6(b).

We reverse.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant states that it believes the real party in interest is TRW Automotive U.S. LLC. (Appeal Br. 2.)

### CLAIMED SUBJECT MATTER

Appellant's disclosed and claimed invention is directed to a measuring circuit for measuring the strength of a low frequency electromagnetic signal received by an antenna which is corrected in accordance with a representation, stored in memory, of noise in the output of the measurement circuit. (Abstr.) Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

1. Apparatus comprising:

at least one antenna for receiving a low frequency electromagnetic field,

a measuring circuit connected to said at least one antenna for measuring strength of a low frequency electromagnetic signal received by said antenna,

a memory for storing a correction factor representative of noise that is inherent to the measuring circuit, and

a corrector for correcting a measurement provided by the measuring circuit in accordance with said correction factor to remove from the measurement the noise inherent to the measuring circuit.

(Appeal Br. 18 (Appendix A).)

### REJECTIONS

The Examiner rejected claims 1, 4, 8–9, 10, and 13–17 under 35 U.S.C. § 102(a)(2) as anticipated by Nakajima et al. (US 2010/0201483 A1, pub. Aug. 12, 2010). (Final Act. 5–6.)

The Examiner rejected claims 2–3, 5–7, 11–12, and 18–25 under 35 U.S.C. § 103 as being unpatentable over Nakajima and Juzswik (US 2010/0191392 A1, pub. July 29, 2010). (Final Act. 6–8.)

The Examiner rejected claims 1, 4, 8, 9, and 13–25 under 35 U.S.C. § 103 as being unpatentable over Park (US 2014/0320262 A1, pub. Oct. 30, 2014) and Lickfelt (US 2013/0069760 A1, pub. Mar. 21, 2013). (Final Act. 9–10.)

### ISSUES ON APPEAL

Appellant’s arguments present the following issues:<sup>2</sup>

*Issue One:* Whether the Examiner erred in finding Nakajima disclosed the independent claims 1, 4, 8, and 9 requirements of “noise that is inherent to the measuring circuit.” (Appeal Br. 4–9.)

*Issue Two:* Whether the Examiner erred in finding the combination of Park and Lickfelt taught or suggested the limitations in independent claims 1, 4, 8, and 9 requirements of “noise that is inherent to the measuring circuit.” (Appeal Br. 11–15.)

### ANALYSIS

#### *Issue One*

For the claim requirement at issue, the Examiner relies on the disclosure in Nakajima of a measurement of the signal strength of a signal that is received at a mobile-device control unit when the transmitting antennas of the vehicle are not transmitting output signals, which measurement corresponds “to only a noise element.” (Final Act. 5; Nakajima Fig. 3, ¶¶ 22, 30.)

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<sup>2</sup> Rather than reiterate the arguments of Appellant and the findings of the Examiner, we refer to the Appeal Brief (filed Sept. 13, 2017) (“Appeal Br.”); the Reply Brief (filed Feb. 14, 2018) (“Reply Br.”); the Final Office Action (mailed May 5, 2017) (“Final Act.”); and the Examiner’s Answer (mailed Dec. 15, 2017) (“Ans.”) for the respective details.

Appellant argues the noise measurement of Nakajima is a measurement of ambient noise, not “noise that is inherent to the measuring circuit,” as required by the claims. (Appeal Br. 6.)

The Examiner argues that “inherent” in the claims is not defined, and that the stored noise measurement of Nakajima is within the scope of the claims. (Ans. 3–4.) However, as Appellant argues, the claims explicitly require that the noise is “inherent *to the measuring circuit.*” (Reply Br. 2.) The Specification confirms, “[a] memory stores a representation of the inherent noise in the output of the measurement circuit.” (Spec. 2:27–28.) The Specification explains that the compensation factor based on this inherent noise is “calculated once, during the fob manufacturing process.” (*Id.* at 8:6–7.)

We find a preponderance of the evidence supports Appellant’s contention that Nakajima does not disclose the claim requirement at issue. *See* Appeal Br. 6. Turning to the evidence cited by the Examiner, we find Nakajima does not disclose storing a correction factor representative of noise that is *inherent to the measuring circuit*, or correcting measurement based on that factor. *See* Nakajima ¶¶ 22, 30. Rather, we find Nakajima uses measured *ambient noise* as a correction factor:

The mobile-device control unit 22 is periodically activated. The mobile-device control unit 22 measures the signal strength of a signal that is received in a state in which the transmitting antennas ANT1 to ANT3 of the vehicle 1 do not output transmission signals, and acquires received signal strength indicator (RSSI) values corresponding to only a *noise element*.

Nakajima ¶ 22 (emphasis added).

As illustrated in FIG. 3, each of the RSSI values that are calculated using the signal strengths of the received transmission signals for measuring RSSI values includes the noise element, and the amount of *noise in the noise element depends on the surrounding environment*. In the present embodiment, the noise element measured in advance is read from the memory 24, *correction in which the noise element is removed from the individual RSSI values* is added, and the distances to the individual transmitting antennas ANT1 to ANT3 are calculated.

Nakajima ¶ 30 (emphasis added).

Accordingly, we do not sustain the Examiner's anticipation rejection of independent claims 1, 4, 8, and 9. We also do not sustain the Examiner's anticipation rejections of claims 10 and 13–17, and the obviousness rejections of claims 2–3, 5–7, 11–12, and 18–25 over Nakajima and Juzswik, which claims depend, directly or indirectly, from claims 1, 4, 8, or 9, because the Examiner has not shown on this record that Juzswik overcomes the aforementioned deficiencies found in Nakajima.

#### *Issue Two*

In finding the Park and Lickfelt taught or suggested the claim requirements, “noise that is inherent to the measuring circuit,” the Examiner solely relies on the disclosure in Park of comparing a measurement of noise detected in a “zone having strong RF noise” with a threshold value to determine whether a key fob is correctly detected. (Final Act. 9; Park Abstr., Fig. 4A, ¶¶ 8, 51–52.)

As argued by Appellant, “Park therefore suffers from the same deficiency as Nakajima in that Park also detects the environmental noise in the RF signals received by the fob . . . not noise inherent to any measuring circuit of Park.” (Appeal Br. 12.) We agree with Appellant for the same

reasons as discussed above. Park measures “intensity of RF noise, which is detected in a zone having strong RF noise,” not “noise that is inherent to the measuring circuit,” as required by the claims. (Park ¶ 8.) Accordingly, we do not sustain the Examiner’s obviousness rejections of claims 1, 4, 8, 9, and 13–25 over Park and Lickfelt.

### CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 4, 8–9, 10, 13–17	102(a)(2)	Nakajima		1, 4, 8–9, 10, 13–17
2–3, 5–7, 11–12, 18–25	103	Nakajima, Juzswik		2–3, 5–7, 11–12, 18–25
1, 4, 8, 9, 13–25	103	Park, Lickfelt		1, 4, 8, 9, 13–25
<b>Overall Outcome</b>				1–25

REVERSED