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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* HEMANTH SAMPATH,  
VINCENT KNOWLES JONES IV,  
AVNEESH AGRAWAL, and  
SANTOSH PAUL ABRAHAM

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Appeal 2015-005640  
Application 13/494,057<sup>1</sup>  
Technology Center 2400

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Before TERRENCE W. MCMILLIN, KAMRAN JIVANI, and  
JOYCE CRAIG, *Administrative Patent Judges*.

CRAIG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–41. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> According to Appellants, the real party in interest is QUALCOMM Incorporated. App. Br. 4.

## INVENTION

Appellants' invention relates to enhanced discovery in peer-to-peer networks by synchronized discovery wake up. Abstract. Claim 1 is illustrative and reads as follows:

1. (Original) An apparatus for wireless communications, comprising:
  - a first circuit configured to obtain one or more time instants;
  - a second circuit configured to wake up the apparatus to discover one or more other apparatuses for communication, wherein the wake up occurs at the one or more time instants synchronized between the apparatus and the one or more other apparatuses; and
  - a third circuit configured to update the one or more time instants according to location information of the apparatus.

## REJECTIONS

Claims 1–5, 7, 8, 11–18, 20, 21, 24–31, 33, 34, and 37–41 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Wu et al. (US 2010/0172275 A1; published July 8, 2010) (“Wu”) and Evans et al. (US 2006/0248197 A1; published Nov. 2, 2006) (“Evans”). Final Act. 2–8.

Claims 6, 19, and 32 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Wu, Evans, and Lee et al. (US 2010/0315986 A1; published Dec. 16, 2010) (“Lee”). Final Act. 8–9.

Claims 9, 10, 22, 23, 35, and 36 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Wu, Evans, and Chakra et al. (US 2012/0173908 A1; published July 5, 2012). Final Act. 9–15.

Claims 1–5, 7, 8, 11–18, 20, 21, 24–31, 33, 34, and 37–41 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Wu and Ji et al. (US 2010/0220597 A1; published Sept. 2, 2010) (“Ji”).  
Final Act. 10–15.

Claims 6, 19, and 32 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Wu, Ji, and Lee. Final Act. 15–16.

Claims 9, 10, 22, 23, 35, and 36 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Wu, Ji, and Chakra. Final Act. 16–19.

#### ANALYSIS

We have considered Appellants’ arguments, but do not find them persuasive of error. We agree with and adopt as our own the Examiner’s findings of facts and conclusions as set forth in the Answer and in the Action from which this appeal was taken. We provide the following explanation for emphasis.

*Claims 1, 3–14, 16–27, 29–41 – Wu, Evans, and Lee/Chakra*

In rejecting claim 1, the Examiner found that Wu teaches or suggests all of the recited limitations, except “a third circuit configured to update the one or more time instants according to location information of the apparatus,” for which the Examiner relied on Evans. Final Act. 2–3 (citing Wu ¶¶ 7, 28; Evans ¶¶ 25, 26, 28).

Appellants contend the cited portions of Evans do not disclose “a third circuit configured to update the one or more time instants according to location information of the apparatus,” as recited in claim 1. App. Br. 9–10.

Appellants argue that that neither of the cited references teaches or suggests *updating* a time instant based on location information. *Id.* at 9.

Appellants' arguments do not persuade us of Examiner error. The Examiner found that Evans teaches that predetermined global schedules for scheduled receive on-times may be determined by each node based on parameters such as GPS positioning. Ans. 18 (citing Evans ¶ 26). The Examiner further found that Evans teaches a scheduled receiver start time based on location identifiers such as GPS position. *Id.* (citing Evans ¶ 28) The Examiner also found that scheduling (i.e., "time instants") in Evans is adaptive and is updated when there is a change, including a change in topology (i.e., "location information"). *Id.* (citing Evans ¶ 25). Appellants argue that Evans does not teach updating a time instant based on location information (App. Br. 9; Reply Br. 6), but present no persuasive explanation or evidence to rebut the Examiner's findings. Rule 41.37 "require[s] more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art." *In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011).

Appellants argue for the first time in the Reply Brief, without a showing of good cause, that the Examiner erred in finding Evans's teaching of predetermined global scheduling that "automatically adapts to load and topology changes" teaches or suggests the disputed limitation. Reply Br. 2 (citing Evans ¶ 25). Appellants, however, did not raise this issue in the Appeal Brief despite the Examiner having made the finding in the Final Action. *See* Final Act. 3; App. Br. 9. Thus, Appellants waived this argument. *See* 37 C.F.R. § 41.41(b)(2) (2012).

Appellants further contend that “one of ordinary skill in the art would not think to combine the teachings of Wu with the teachings of Evans, as asserted by the Examiner.” App. Br. 9. In particular, Appellants argue that paragraph 21 of Wu teaches away from the Examiner’s proposed combination because, in Wu, there is no need to adjust the times that devices wake up because discovery by each mobile device occurs at a time that is *guaranteed* to overlap with another device’s discovery time, even when the two time clocks are not exactly synchronized. *Id.* at 9–10; Reply 2.

We are not persuaded the Examiner erred. A teaching away requires a reference to actually criticize, discredit, or otherwise discourage the claimed solution. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). We find that paragraph 21 of Wu does not actually criticize, discredit, or otherwise discourage from adjusting the times that devices wake up.

Appellants next contend an artisan of ordinary skill would not have combined the teachings of Wu and Evans in the manner proposed by the Examiner because “the time slots of Evans are used for transmitting and receiving unicast and multicast transmissions and not discovery of other devices, as in Wu.” App. Br. 10.

Appellants’ argument is unpersuasive. We agree with the Examiner that Evans teaches that information is sent/received in time slots, and that the type of information sent/received does not teach away from updating the pattern for sending/receiving, or otherwise preclude combining the teachings of Wu and Evans. *See Ans.* 21.

Appellants further contend that the Examiner “is merely selectively picking and choosing a variety of features from disparate references in an attempt to provide the features recited in the pending claims,” and “has

failed to provide an ‘articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’” App. Br. 10. We disagree. The Examiner has articulated (Final Act. 3 (citing Evans ¶¶ 33, 46), Ans. 22) how the claimed features are met by the reference teachings with some rational underpinning to combine Wu’s teachings with Evans. *KSR*, 550 U.S. at 418.

Appellants argue for the first time in the Reply Brief, without a showing of good cause, that the Examiner’s proffered rationale for combining the references—“to implement a reuse scheme and to reduce collisions” (Final Act. 3)—is “inapplicable in the context of a wakeup pattern as taught by Wu.” Reply Br. 4–5. Appellants did not raise this issue in the Appeal Brief. Thus, Appellants waived that argument. *See* 37 C.F.R. § 41.41(b)(2) (2012).

For these reasons, we are not persuaded that the Examiner erred in combining the cited teachings of Wu and Evans, or in finding that the combination of Wu and Evans teaches or suggests the disputed limitation of claim 1.

Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of independent claim 1 over Wu and Evans, as well as the 35 U.S.C. § 103(a) rejection of independent claims 14, 27, 40, and 41, which Appellants argue are patentable for similar reasons. App. Br. 11. We also sustain the Examiner’s rejection of dependent claims 3–5, 7, 8, 11–13, 16–18, 20, 21, 24–26, 29–31, 33, 34 and 37–39 over Wu and Evans, not argued separately. *Id.* We also sustain the Examiner’s rejections of dependent claims 6, 9, 10, 19, 22, 23, 32, 35, and 36 over Wu, Evans, and other prior art, for which

Appellants make no persuasive arguments directed to the Examiner's findings. *See id.* at 11–12.

*Claims 2, 15, and 28 – Wu and Evans*

Appellants contend the Examiner erred in finding that the combination of Wu and Evans teaches or suggests “receiving information *about* the one or more time instances (e.g., duration of the instants) from a GPS based time source,” as claims, 2, 15, and 28 require. App. Br. 11.

We are not persuaded of Examiner error. The Examiner found that Wu teaches that the time received from the GPS system is used for the wakeup pattern and therefore teaches or suggests the recited limitation “receive information about the one or more time instants.” Ans. 23.

Appellants present no persuasive explanation or evidence that the Examiner's interpretation of the disputed limitation is overly broad or inconsistent with Appellants' Specification. *See* Reply Br. 5.

Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of claims 2, 15, and 28 over Wu and Evans.

*Rejections of Claims 1, 3–14, 16–27, 29–41 – Wu, Ji, and Lee/Chakra*

In rejecting claim 1, the Examiner found that Wu teaches or suggests all of the recited limitations, except “a third circuit configured to update the one or more time instants according to location information of the apparatus,” for which the Examiner relied on Ji. Final Act. 10–11 (citing Wu ¶¶ 7, 28; Ji ¶¶ 69, 70).

Appellants contend the cited portions of Ji do not disclose “a third circuit configured to update the one or more time instants according to location information of the apparatus,” as recited in claim 1. App. Br. 14.

Appellants argue that that neither of the cited references teaches or suggests *updating* a time instant based on location information. *Id.*

Appellants' arguments do not persuade us of Examiner error. The Examiner made specific findings that Ji in combination with Wu teaches the disputed limitation. *See* Final Act. 11; Ans. 23–24. Appellants present no persuasive explanation or evidence to rebut the Examiner's findings. Rule 41.37 “require[s] more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art.” *In re Lovin*, 652 F.3d at 1357.

In the Reply Brief, Appellants for the first time present substantive arguments directed to the Examiner's findings based on paragraphs 69–70 of Ji (Final Act. 11), without a showing of good cause. Reply Br. 7. Appellants did not present those arguments in the Appeal Brief. *See* App. Br. 14. Thus, Appellants waived those arguments. *See* 37 C.F.R. § 41.41(b)(2) (2012).

Appellants further contend the Examiner erred in combining the teachings of Wu and Ji. App. Br. 14–15. Appellants again argue that paragraph 21 of Wu teaches away from the Examiner's proposed combination. *Id.* at 15. For the reasons discussed above with regard to the combination of Wu and Evans, we disagree. Moreover, contrary to Appellants' assertions (App. Br. 15), we find the Examiner has articulated (Final Act. 11 (citing Ji ¶ 3; Ans. 27)) how the claimed features are met by the reference teachings with some rational underpinning to combine Wu's teachings with Ji. *KSR*, 550 U.S. at 418.

Moreover, Appellants argue for the first time in the Reply Brief, without a showing of good cause, that the Examiner's proffered rationale for

combining the cited teachings of Wu and Ji—“to establish synchronization and mitigate interference” (Final Act. 11)—is insufficient. *See* Reply Br. 8. Appellants also argue for the first time that Ji teaches away from “the combination the Examiner advances.” *See id.* Appellants did not raise those issues in the Appeal Brief. *See* Final Act. 11. Thus, Appellants waived those arguments. *See* 37 C.F.R. § 41.41(b)(2) (2012).

Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of independent claim 1 over Wu and Ji, as well as the 35 U.S.C. § 103(a) rejection of independent claims 14, 27, 40, and 41, which Appellants argue are patentable for similar reasons. App. Br. 11. We also sustain the Examiner’s rejection of dependent claims 3–5, 7, 8, 11–13, 16–18, 20, 21, 24–26, 29–31, 33, 34 and 37–39 over Wu and Ji, not argued separately. *Id.* We also sustain the Examiner’s rejections of dependent claims 6, 9, 10, 19, 22, 23, 32, 35, and 36 over Wu, Ji, and other prior art, for which Appellants make no persuasive arguments directed to the Examiner’s findings. *See id.* at 11–12.

*Claims 2, 15, and 28 – Wu and Ji*

Appellants contend the Examiner erred in finding erred in finding the combination of Wu and Ji teaches or suggests “receiving information *about* the one or more time instances (e.g., duration of the instants) from a GPS based time source,” as claims, 2, 15, and 28 require. App. Br. 11. For the reasons discussed above with regard to the combination of Wu and Evans, we are not persuaded the Examiner erred.

Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of claims 2, 15, and 28.

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DECISION

We affirm the decision of the Examiner rejecting claims 1–41.

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).

AFFIRMED