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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARTIN FEUERSAENGER, JOACHIM LOEHR, CHRISTIAN
WENGERTER, and PRATEEK BASU-MALLICK

Appeal 2018-005322
Application 14/396,713
Technology Center 2400

Before JEAN R. HOMERE, MIRIAM L. QUINN, and AMBER L. HAGY,
Administrative Patent Judges.

QUINN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–6, 8–10, 12–18, 20–22, 25, 27, and 29–31. *See* Final Act. 1. Claims 7, 11, 19, 23, 24, 26, and 28 have been canceled. Claims Appendix. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Panasonic Intellectual Property Corporation of America. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to a coexistence interference reporting mechanism. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method, comprising:

detecting, by a mobile terminal in a communication system including a base station and a wireless communication device, an interference condition between a communication with the base station via a first resource and a communication with the wireless communication device via a second resource;

reporting, by the mobile terminal, on the interference condition to the base station to deactivate the first resource by the base station;

receiving, by the mobile terminal, reconfiguration information indicating a third resource for communication with the base station and reconfiguring the communication with the base station to the third resource;

detecting, by the mobile terminal, whether there is an interference condition between the reconfigured communication with the base station via the third resource and the communication with the wireless communication device via the second resource;

when there is no interference condition detected between the reconfigured communication with the base station via the third resource and the communication with the wireless communication device via the second resource, reporting, by the mobile terminal to the base station, an interference avoidance of the detected interference condition between the communication with the base station via the first resource and the communication with the wireless communication device via the second resource;

detecting, by the mobile terminal, whether the interference condition persists for potential communications

with the base station via the first resource, and, in case the interference condition has been resolved, reporting, by the mobile terminal, on an interference resolution to the base station for communications via the first resource to reactivate the first resource; and

receiving, by the mobile terminal, reconfiguration information indicating the reactivated first resource for communication with the base station and reconfiguring the communication with the base station to the first resource.

Appeal Br. 46–47 (Claim Appendix).

REFERENCE

The Examiner relies on the following prior art:

Name	Reference	Date
Comsa	US 2012/0207040 A1	Aug. 16, 2012

REJECTION

Claims 1–6, 8–10, 12–18, 20–22, 25, 27, and 29–31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Comsa. Ans. 2–10.

OPINION

We review the appealed rejection for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv) (2017).

Claims 1, 13, and 27

Appellant argues that the Examiner's rejection of independent claims 1, 13, and 27 is in error, because Comsa does not disclose one of the recited reporting limitations. Appeal Br. 37–42. Appellant's arguments focus on certain language of claim 1, which Appellant argues is identically recited in claims 13 and 27. *Id.* at 43. We have reviewed Appellant's arguments that the Examiner erred. We are not persuaded by Appellant's arguments for the reasons that follow.

Claim 1 recites three reporting limitations. First, a wireless terminal reports “on the interference condition to the base station to deactivate the first resource by the base station.” *Id.* at 46 (Claim Appendix). Second, the wireless terminal reports “an interference avoidance of the detected interference condition between the communication with the base station via the first resource and the communication with the wireless communication device via the second resource.” *Id.* Third, the wireless terminal reports “on an interference resolution to the base station for communications via the first resource to reactivate the first resource.” *Id.* All three reports are triggered when the wireless terminal determines whether there is interference between resources. *Id.*

The Examiner finds that Comsa discloses the three reports. As to the first report, the Examiner finds that Comsa describes a wireless device that detects or predicts an interference situation and then notifies the network of the interference. Final Act. 3 (citing, for example, Comsa ¶¶ 59, 69); Ans. 10–11. The Examiner also points out that Comsa's network receives the notification and sends to the wireless device a reconfiguration message,

indicating, for example, instruction to handover or deactivate a carrier. Final Act. 3 (citing Comsa ¶ 108).

As to the second report, the Examiner finds that Comsa describes the wireless device's notification to the network includes the indication "that [a] previous interference stopped." *Id.* at 4 (citing Comsa ¶ 83). As to the third report, the Examiner finds that Comsa's wireless device notifies the network that an interference situation exists in the current serving frequency or in another serving frequency. *Id.* (citing Comsa ¶ 83). The Examiner notes that Comsa's wireless device continuously reports or transmits notifications. *Id.* (citing Comsa ¶ 97).

Appellant argues that Comsa does not disclose the second report. Appeal Br. 40. According to Appellant, the disclosures cited by the Examiner in Comsa allude to Comsa's identification of interference with a particular resource, not as to whether any reconfiguration has successfully avoided interference. *Id.*; *see also* Reply 3 ("Comsa is directed to the status of particular resources, without regard to whether any reconfiguration has occurred which has successfully avoided interference."). More particularly, Appellant argues that Comsa's notification that an interference situation may have stopped is not "a reporting of an 'interference avoidance' . . . [because] Comsa appears to be directed to reporting that the original configuration which presented an interference condition no longer presents an interference condition." *Id.* at 41. We are not persuaded by Appellant's arguments.

The claimed second report requires an indication that the wireless device has avoided the previously detected interference, i.e., between the first and second resources. The claim language does not require the wireless device to report that the reconfiguration to the third resource is the solution

to the previously detected interference between the first and second resources. Although the Specification describes the “interference avoidance” (or second) report as indicating that there is no interference condition between the reconfigured communication (using the *third* resource) and the second resource, the claim language focuses on a report indicating avoiding interference that occurred between the *first* and second resources. *See* Spec. 35: 1–8. Thus, Comsa’s report indicating that a previous interference may have stopped discloses reporting the avoidance of a previously detected interference, between the first and second resources, as recited. When Comsa’s wireless device has performed a handover to another resource, according to the reconfiguration message after the first report, Comsa continues to transmit notification messages to the network, including a notification that the previously detected interference may have stopped, because the wireless device is no longer communicating using the first resource. *See e.g.*, Ans. 15 (the Examiner stating that Comsa satisfies the second report limitation because its notification includes the information that the first resource is not being used anymore).

Appellant argues further that the continuous transmission of Comsa does not satisfy the timing required by the claim: that the second report occurs “when there is no interference condition detected.” Appeal Br. 42. We are not persuaded by this argument. As the Examiner explains, and we agree, once Comsa reconfigures the wireless device to use another serving frequency resource, it will continue to send interference reports regarding the new serving frequency resource. Ans. 11 (citing Comsa ¶¶ 59, 68, 83, 97). Then, according to the Examiner, the wireless device measures the potential interference involving the new (third) resource, and sends an

interference report triggered by that detection. *Id.* We agree with the Examiner’s finding because Comsa describes sending a notification report according to proactive triggers (¶ 69), which include that the device is about to activate a new resource (¶ 72). Thus, Comsa satisfies the timing of the claimed second report because the reconfiguration to the third resource is a proactive trigger to detect or measure new interferences and notify the network: (a) whether the third resource will cause interference (*see, e.g.*, ¶ 83 (discussing indication that an in-device interference will exist)); and (b) whether a previous interference involving the first resource may have stopped (¶ 83). Accordingly, we are not persuaded by Appellant’s arguments that the Examiner erred in finding that Comsa discloses the second reporting limitation recited in claims 1, 13, and 27.

Other than claim 2 (discussed below), Appellant does not argue any dependent claims separately. Consequently, we find that Appellant has not shown that the Examiner erred in rejecting claims 1, 3–6, 8–10, 12–18, 20–22, 25, 27, and 29–31.

Dependent Claim 2

Claim 2 depends from claim 1 and recites that “detecting whether the interference condition persists for potential communication with the base station via the first resource is performed by the mobile terminal after the reporting, by the mobile terminal, of the indication of interference avoidance.” Appeal Br. 47 (Claim Appendix). Essentially, this claim requires a specific order of steps: the second report occurs before the last recited detection step. First, Appellant argues that because Comsa does not disclose the second report, then Comsa does not disclose the required order. *Id.* at 44. Second, Appellant argues that the Examiner improperly finds that

the same feature of Comsa discloses both the second report and the last detecting step. *Id.* We are not persuaded by either of Appellant's arguments.

As stated above, we agree with the Examiner's finding that Comsa discloses the second report when it describes that the notification includes an indication that a previous interference situation may have stopped. Therefore, we are not persuaded by Appellant's first argument.

As to the second argument, we note that the Examiner rejects claim 2 on the basis that Comsa's notification includes an indication that previous interference exists *or* has stopped. Final Act. 5 (citing Comsa ¶ 83). The Examiner further explains that Comsa discloses transmitting multiple reports, one after the other. Ans. 19. We agree with the Examiner because Comsa discloses continuous transmission of notifications. Comsa ¶ 97. Furthermore, as the Examiner's rejection states, Comsa's notification that the interference may have stopped is a different notification of whether an interference situation exists (such as in the current serving frequency or in another serving frequency) or will exist (such as when a technology may be activated in the future). *Id.* ¶ 83. Thus, as the Examiner finds, and our understanding of Comsa confirms, after the wireless device sends the second report (previous interference situation may have stopped), Comsa's detection and notifications will continue with regard to the first resource, and will result in the notification to the network whether a potential interference with the first resource will occur. *See id.* (explaining that notification provides indication that an in-device interference situation exists or will exist in addition to indicating whether a previous interference may have stopped);

see also id. ¶ 86 (explaining that the wireless device notifications include a list of frequencies that it supports without interference).

In sum, because the notifications of Comsa are continuous, it is reasonable to find, as the Examiner states, that the same report (previous interference situation may have stopped) would be transmitted multiple times: a first instance to indicate that due to inactivation the first resource is no longer interfering; and a second instance to indicate that the first resource, as a future activated resource, would not be interfering. The subsequent report would also include listing the first resource with the notification to indicate that the wireless device supports the first resource without interference as Comsa describes. Accordingly, we find that the Examiner has not erred in rejecting claim 2 as anticipated by Comsa.

CONCLUSION

The Examiner's rejection is sustained.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-6, 8-10, 12-18, 20-22, 25, 27, and 29-31	102(e)	Comsa	1-6, 8-10, 12-18, 20-22, 25, 27, and 29-31	

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TIME PERIOD FOR RESPONSE

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

AFFIRMED