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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OLOF LIBERG, JOHN WALTER DIACHINA, STEFAN ERIKSSON LÖWENMARK, and MARTEN SUNDBERG

Appeal 2019-004960
Application 15/528,005
Technology Center 2400

Before DENISE M. POTHIER, JASON J. CHUNG, and STEPHEN E. BELISLE, *Administrative Patent Judges*.

CHUNG, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals the Final Rejection of claims 36–68.[2] Appeal Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

INVENTION

The invention relates to managing information about signal quality and/or signal strength received by a wireless device in a downlink. Spec. 1:7–8. Claim 36 is illustrative of the invention and is reproduced below:

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. According to Appellant, Telefonaktiebolaget LM Ericsson is the real party in interest. Appeal Br. 2.

[2] Claims 1–35 are cancelled. Appeal Br. 2.

> 36. A method, performed by a wireless device operative in a wireless communication network, for managing downlink signal information, the downlink signal information being information about signal quality and/or signal strength received by the wireless device in a downlink, wherein the method comprises:
>
> obtaining the downlink signal information;
>
> sending, to the wireless communication network, a message *indicating said obtained downlink signal information* and which message is associated with the wireless device requesting access to the wireless communication network, *the obtained downlink information being indicated in the message by a range that indicates how much the obtained downlink signal information exceeds a certain threshold, wherein the range is determined based on a certain factor, the wireless device having received information about said certain factor from the wireless communication network.*

Appeal Br. 22 (Claims Appendix) (emphases added).

REJECTIONS

The Examiner rejects claims 36–68 under 35 U.S.C. § 112(b) as being indefinite. Final Act. 2.

The Examiner rejects claims 36, 37, 40, 42–46, 49, 51–55, 58, 60–63, 66, and 68 under 35 U.S.C. § 102(a)(1–2) as being anticipated by DiGirolamo (US 2008/0095185 A1; published Apr. 24, 2008).[3] Final Act. 7–12.

[3] Although the Examiner does not provide a separate paragraph for claim 58's analysis, the Examiner includes claim 58 in the rejection heading (Final Act. 7) and the Examiner groups claim 58 with claim 40 (*id.* at 12 ("**Regarding claims 49 & 66**. (New) **Claims 46 & 63 are rejected with the same reasons as set forth in claims 40 & 58.**")), which recites similar

WITHDRAWN REJECTIONS

The rejection of claims 36–44, 46–61, and 63–68 under 35 U.S.C. § 101 is withdrawn. Ans. 3.

The rejection of claims 38, 39, 47, 48, 56, 57, 64, 65, and 67 under 35 U.S.C. § 103 is withdrawn. Ans. 3, 6 (page 6 of the Answer states the § 103 rejection for claim 67 is withdrawn); *see also* Reply Br. 2–3 (we interpret the Examiner's withdrawn rejections statement as intending to include claims 47 and 48 in the withdrawn § 103 rejections).[4]

ANALYSIS

I. Claims 36–68 Rejected Under 35 U.S.C. § 112(b)

A. The Examiner's Findings and Appellant's Arguments

The Examiner concludes the limitation "a certain factor" is indefinite because although the range may be "less than X dB" or "between X and 2X dB," where "X" is the certain factor, the boundaries of "X" is unclear. Final Act. 2; Ans. 3–4.

Appellant argues "X" is the certain factor such that the range is "less than X dB" or "between X and 2X dB." Appeal Br. 8–9; Reply Br. 3–5 (citing Spec. 13–14). We find Appellant's argument unpersuasive.

Pages 13 and 14 of the Specification states:

> The margin may be indicated in the form of a range or interval and/or be indicated relative to a certain factor. The factor *may be* named "X" elsewhere in the present disclosure. *For*

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features. We, therefore, interpret claim 58 as rejected for the same reasons provided for claim 40's rejection.

[4] Although the Examiner includes claim 61 under withdrawn rejections, claim 61 was rejected by the Examiner under 35 U.S.C. § 102, not 35 U.S.C. § 103. We, therefore, interpret the Examiner's statement including claim 61 under withdrawn rejections as an inadvertent inclusion.

> *example*, the margin may be indicated as "less than X dB", "between X and 2X dB" etc. The factor X *may by* predetermined *and/or* predefined in *e.g.* a technical specification, *and/or* be configurable by the wireless communication network *and/or* an operator thereof. For example, said factor *may* represent a margin between said certain threshold, *e.g.* a DL CC1 threshold, and the received signal quality *and/or* signal strength. The factor X *may* have been *e.g.* broadcasted over an Extended Coverage BCCH (ECBCCH) *and/or* been received as part of SI from the wireless communication network, such as in Action 201.

Spec. 13:30–14:4 (emphases added). The disparate descriptions of the "certain factor" (or "X") provide no meaningful boundaries to this term. *Id.* For instance, a "certain factor" being "predefined" does not have any metes or bounds. *Id.* Notably, even the claimed "range" (i.e., Appellant argues the range is "less than X dB" or "between X and 2X dB") is problematic because it is determined *based on* a "certain factor," which the Examiner finds (and we agree) is indefinite. Therefore, Appellant has not persuaded us of error in the Examiner's conclusion.

Accordingly, we sustain the Examiner's rejection of: (1) independent claims 36, 44, 54, and 61; and (2) dependent claims 37–43, 45–53, 55–60, and 62–68 under 35 U.S.C. § 112(b).

II. Claims 36, 37, 40, 42–46, 49, 51–55, 58, 60–63, 66, and 68 Rejected Under 35 U.S.C. § 102

A. The Examiner's Findings and Appellant's Arguments

The Examiner finds DiGirolamo discloses a channel quality indication (CQI) exceeding a predetermined value triggering a CQI reporting, which the Examiner maps to the limitation "the obtained downlink information being indicated in the message by a range that indicates how much the obtained downlink signal information exceeds a certain threshold" recited in claim 36. Ans. 5 (citing DiGirolamo ¶¶ 28, 42, 44). The Examiner finds

DiGirolamo discloses hybrid automatic repeat request block error rate (HARQ BLER), which the Examiner maps to the limitation "wherein the range is determined based on a certain factor, the wireless device having received information about said certain factor from the wireless communication network." Ans. 5–6 (citing DiGirolamo ¶ 47).

Appellant argues DiGirolamo fails to disclose the limitation "the obtained downlink information being indicated in the message by a range that indicates how much the obtained downlink signal information exceeds a certain threshold" because DiGirolamo discloses a technique for determining when to send a CQI report to the base station, where this CQI report might be an encoded measurement value (rather than a range) or up/down command. Reply Br. 7–8; Appeal Br. 7. Appellant argues DiGirolamo's HARQ BLER serves as a basis to trigger CQI reporting, which is not a basis for determining the "range of the CQI." Reply Br. 8–9. We find Appellant's arguments unpersuasive. To resolve these issues, we first construe certain limitations in the independent claims.

B. Claim Construction

Claim construction is an issue of law that is left for a court or a tribunal. "[W]hen the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the judge's determination will amount solely to a determination of law." *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). "[T]he ultimate issue of the proper construction of a claim should be treated as a question of law." *Id.* at 326.

We construe claim terms according to their broadest reasonable construction in light of the specification of the patent or application in which

they appear. *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004). Consistent with the broadest reasonable construction, claim terms are generally given their ordinary and customary meaning, as understood by a person of ordinary skill in the art, in the context of the entire specification. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Also, we must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) ("[L]imitations are not to be read into the claims from the specification."). However, a term may be defined in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We note that the italicized portions of claim 36 shown on page 2 of this Decision above recite non-functional descriptive material. The informational content of non-functional descriptive material is not entitled to weight in the patentability analysis. *See Ex parte Nehls*, 88 USPQ2d 1883, 1887–90 (BPAI 2008) (precedential); *Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (informative) (Federal Circuit Appeal No. 2006-1003), *aff'd*, Rule 36 (June 12, 2006)); *Ex parte Mathias*, 84 USPQ2d 1276 (BPAI 2005) (informative), *aff'd*, 191 F. App'x 959 (Fed. Cir. 2006).

As an initial matter, we note that claim 36 does not recite using the "obtained downlink signal information." Nor does claim 36 require the "message" include the "obtained downlink signal information"; rather, claim 36 merely requires the "message" that is sent to the wireless communication network *indicate* the "obtained downlink signal information." Claim 36 does not recite what (if anything) receives the

"obtained downlink signal information" or what is done with the "obtained downlink signal information." Thus, we determine the "obtained downlink signal information" is non-functional descriptive material.

In addition, the "certain factor" appears to be functional when reading "wherein the range is determined based on a certain factor" in a vacuum. However, the "certain factor" is also non-functional descriptive material because it determines the claimed "range" and the "range" indicates how much the "obtained downlink signal information," which is not used by claim 36 as discussed above, exceeds a certain threshold. Stated another way, the "certain factor" is an appendage of the non-functional descriptive limitation "obtained downlink signal information."

Because the emphasized text above are construed as merely descriptive labels that do not impart any functionality to claim 36, we conclude the italicized limitations above amount to non-functional descriptive material. We further note the Specification describes "obtained downlink signal information" in non-limiting nomenclature (*see, e.g.*, Spec. 5:11–18 (describing obtained downlink signal information in the context of a first aspect of embodiments), 6:18–28 (describing obtained downlink signal information in the context of a seventh aspect of embodiments), 13:18–22 (using open-ended non-limiting terminology such as "may" and "e.g.")), rather than specifically defining this phrase.

As a result, we construe the claim 36 limitation:

> sending, to the wireless communication network, a message *indicating said obtained downlink signal information* and which message is associated with the wireless device requesting access to the wireless communication network, *the obtained downlink information being indicated in the message by a range that indicates how much the obtained downlink signal*

> *information exceeds a certain threshold, wherein the range is determined based on a certain factor, the wireless device having received information about said certain factor from the wireless communication network.*

(emphases added) as sending, to the wireless communication network, a message indicating information and which message is associated with the wireless device requesting access to the wireless communication network.

Similarly, we construe the claim 44 limitation:

> receiving, from the wireless device, a message *indicating said downlink signal information* and which message is associated with the wireless device requesting access to the wireless communication network, *the downlink signal information being indicated in the message by a range that indicates how much the downlink signal information exceeds a certain threshold, wherein the range is determined based on a certain factor, the wireless communication network having sent information about said certain factor to the wireless device.*

(emphases added) as receiving, from the wireless device, a message indicating information and which message is associated with the wireless device requesting access to the wireless communication network.

In addition, we construe the claim 54 limitation:

> send, to the wireless communication network, a message *indicating said obtained downlink signal information* and which message is associated with the wireless device requesting access to the wireless communication network, *the obtained downlink information being indicated in the message by a range that indicates how much the obtained downlink signal information exceeds a certain threshold, wherein the range is determined based on a certain factor, the wireless device having received information about said certain factor from the wireless communication network.*

(emphases added) as send, to the wireless communication network, a message indicating information and which message is associated with the wireless device requesting access to the wireless communication network.

Lastly, we construe the claim 61 limitation:

> receive, from the wireless device, a message *indicating said downlink signal information* and which message is associated with the wireless device requesting access to the wireless communication network, *the downlink signal information being indicated in the message by a range that indicates how much the downlink signal information exceeds a certain threshold, wherein the range is determined based on a certain factor, the wireless communication network having sent information about said certain factor to the wireless device*.

(emphases added) as receive, from the wireless device, a message indicating information and which message is associated with the wireless device requesting access to the wireless communication network.

C. Discussion

We need not decide whether DiGirolamo discloses the limitations in dispute discussed above in § II.A. because these limitations related to certain information recite non-functional descriptive material as discussed above in § II.B. Therefore, Appellant has not persuaded us of error in the Examiner's findings, which show DiGirolamo teaches sending, to the wireless communication network, a message indicating information and which message is associated with the wireless device requesting access to the wireless communication network. *See* Final Act. 8–9 (citing DiGirolamo ¶¶ 24–30, 32, 33, 42, 44, 45, 49, 55)

Accordingly, we sustain the Examiner's rejection of: (1) independent claims 36, 44, 54, and 61; and (2) dependent claims 37, 42, 43, 45, 46, 51–53, 55, 60, 62, 63, and 68 under 35 U.S.C. § 102(a)(1–2).

We have only considered those arguments that Appellant actually raised in the Briefs. Arguments Appellant could have made, but chose not to make, in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

D. Dependent claims 40, 49, 58, and 66

The Examiner rejects claims 40, 49, 58, and 66 under 35 U.S.C. § 102(a)(1–2) as being anticipated by DiGirolamo. Final Act. 7–12. However, claims 40, 49, 58, and 66 depend from claims 39, 48, 56, and 65, respectively. The § 103 rejection for claims 39, 48, 56, and 65 is withdrawn. Ans. 3.

Accordingly, we do not sustain the Examiner's rejection for claims 40, 49, 58, and 66 under 35 U.S.C. § 102(a)(1–2).

CONCLUSION

Claim(s) Rejected	**35 U.S.C. §**	**Reference(s)/Basis**	**Affirmed**	**Reversed**
36–68	112(b)	Indefiniteness	36–68	
36, 37, 40, 42–46, 49, 51–55, 58, 60–63, 66, 68	102(a)(1–2)	DiGirolamo	36, 37, 42–46, 51–55, 60–63, 68	40, 49, 58, 66
Overall Outcome			36–68	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED