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Murphy, Bilak & Homiller/Ericsson 1255 Crescent Green Suite 200 Cary, NC 27518			PATEL, HARDIKKUMAR D	
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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* PONTUS WALLENTIN, ERIK ERIKSSON,  
and PÅL FRENGER

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Appeal 2019-001070  
Application 14/130,820  
Technology Center 2400

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Before KRISTEN L. DROESCH, BETH Z. SHAW, and  
JENNIFER L. McKeown, *Administrative Patent Judges*.

McKEOWN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 33–54. We have jurisdiction 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(a). Appellant identifies the real party in interest as Telefonaktiebolaget LM Ericsson (publ). Appeal Br. 2.

### CLAIMED SUBJECT MATTER

The claims are directed to “handover, and in particular to handover related signaling.” Spec. p.1, ll. 5–6.

Claim 33, reproduced below, is illustrative of the claimed subject matter:

33. A method performed by a first node in a communication system, the method comprising:

receiving first measurement information from a User Equipment (UE) being served via a first transceiver in the communication system, the first measurement information indicating measurements made by the UE on a first broadcast signal transmitted by the first transceiver and on a second broadcast signal transmitted by a neighboring, second transceiver in the communication system;

initiating transmission of a directional signal between the UE and the second transceiver, responsive at least to determining from the first measurement information that the second transceiver is a candidate for serving the UE;

receiving second measurement information from the UE or the second transceiver, the second measurement information indicating measurements made on the directional signal; and

controlling handover of the UE from the first transceiver to the second transceiver in dependence on the second measurement information.

### REFERENCES

The prior art relied upon by the Examiner is:

<b>Name</b>	<b>Reference</b>	<b>Date</b>
Tigerstedt	US 6,615,044 B2	Sept. 2, 2003
Chang	US 2007/0032237 A1	Feb. 8, 2007
Johnson	US 2009/0111381 A1	Apr. 30, 2009

## REJECTIONS

The Examiner rejected claims 33–35, 40, 42, 44–46, 51, and 53 under 35 U.S.C. § 103 as unpatentable over Chang and Tigerstedt. Final Act. 3–6.

The Examiner rejected claims 36–39, 41, 43, 47–50, 52, and 54 under 35 U.S.C. § 103 as unpatentable over Chang, Tigerstedt, and Johnson. Final Act. 6–11.

## ANALYSIS

### THE 35 U.S.C. § 103 REJECTION BASED ON CHANG AND TIGERSTEDT

#### *Claims 33–35, 40, 42, 44–46, 51, and 53*

The Examiner finds that Tigerstedt teaches or suggests “initiating transmission of a directional signal between the [user equipment UE] and the second transceiver. . . responsive at least to determining from the first measurement information that the second transceiver is a candidate for serving the UE . . . ; receiving second measurement information from the UE or the second transceiver, the second measurement information indicating measurements made on the directional signal. . . ,” as recited in independent claim 33 and recited similarly in independent claim 44. Final Act. 4. In particular, the Examiner construes the claimed “directional signal” as “any specific signal that is sent by the base station to the intended/directed UE.” Ans. 12. As such, since Tigerstedt’s base station “sends [a] signal [to the] mobile terminal to perform signal strength/quality measurement. . . ,” Tigerstedt initiates transmission of a directional signal between the UE and the base station. Ans. 12. According to the Examiner, Appellant’s definition “of directional signal as beamformed transmission is not defined in the claims.” Ans. 13.

Appellant, on the other hand, contends the Examiner's construction is unreasonably broad, as any signal sent by one node for reception by another node is a directional signal. *See, e.g.*, Reply Br. 3 (arguing that under the Examiner's construction, "any transmitted signal that has an intended recipient is a directional signal" and, therefore, "a signal transmitted with uniform radiating energy—i.e., an omnidirectional signal—is nonetheless a directional signal according to the Examiner's claim construction."). Appellant contends that the Examiner's interpretation of directional signal is inconsistent with the claims and the Specification. For example, Appellant points out that claims 33 and 44, as well as Figures 1 and 2, distinguish between broadcast signals and "beamformed signals having narrower, defined directions of transmission." Appeal Br. 10. Appellant also argues that the Specification describes beamformed signals as an example of directional signal transmissions. Appeal Br. 10.

Based on the record before us, we are persuaded of error. Namely, we agree that the Examiner's construction is unreasonably broad. As Appellant points out, the claims and Specification distinguish between broadcast and directional signals and the Examiner's definition is so broad that it includes broadcast signals. *See, e.g.*, Appeal Br. 10; Reply Br. 3–4. Additionally, the Examiner's claim construction analysis fails to consider the Specification. For example, the Specification discloses "some of these downlink pilot signals can be beam-formed [that is] concentrated in a given direction, e.g., to a particular user equipment." Appeal Br. 10 (citing Spec., p. 14, ll. 30–33); *see also* Ans. 13 (discussing generally claim construction case law, but failing to cite or consider any portion of the Specification or Appellant's arguments). As such, we agree that the Examiner's construction of the

claimed directional signal as “any specific signal that is sent by the base station to the intended/directed UE” is unreasonably broad. Consequently, we are constrained by the record to find that the Examiner erred in concluding that Tigerstedt teaches the claimed directional signal.

Accordingly, based on the record before us, we reverse the rejection of claims 33–35, 40, 42, 44–46, 51, and 53.

THE 35 U.S.C. § 103 REJECTION BASED ON CHANG, TIGERSTEDT,  
AND JOHNSON

*Claims 36-39, 41, 43, 47–50, 52, and 54*

Based on the record before us, we are persuaded that the Examiner erred in concluding that claims 36–39, 41, 43, 47–50, 52, and 54 are unpatentable over Chang, Tigerstedt, and Johnson. As discussed above, we determine that the Examiner erred in rejecting claims 33 and 44 as unpatentable over Chang and Tigerstedt. Johnson fails to cure the deficiencies of this combination. Accordingly, we also are persuaded that the Examiner erred in rejecting claims 36–39, 41, 43, 47–50, 52, and 54, which depend from 33 or 44, as unpatentable over Chang, Tigerstedt, and Johnson, and reverse the rejection.

CONCLUSION

The Examiner’s rejections of claims 33–54 are reversed.

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
33–35, 40, 42, 44–46, 51, 53	103	Chang, Tigerstedt		33–35, 40, 42, 44–46, 51, 53
36–39, 41, 43, 47–50, 52, 54	103	Chang, Tigerstedt, Johnson		36–39, 41, 43, 47–50, 52, 54
<b>Overall Outcome</b>				33–54

REVERSED