

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TAO YANG and SEAU SIAN LIM¹

Appeal 2018-004505
Application 14/009,913
Technology Center 2400

Before CAROLYN D. THOMAS, JON M. JURGOVAN, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant seeks review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3–9, 11, 13, 20, and 30², constituting the only claims on appeal before us. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.³

¹ The Appeal Brief indicates the real party in interest is ALCATEL LUCENT. Appeal Brief 1.

² Claims 2, 12, 14–19, 21–29, and 31–38 were canceled by Amendment dated November 14, 2016. Claim 10 was objected to as dependent on a rejected base claim, but was noted as allowable if rewritten in independent form. Final Office Action 2.

³ Our Decision refers to the Specification (“Spec.”) filed October 4, 2013, the Final Office Action (“Final Act.”) mailed February 27, 2017, the Appeal Brief (“App. Br.”) filed November 9, 2017, the Examiner’s Answer (“Ans.”)

CLAIMED INVENTION

Long-Term Evolution (LTE) Release 10 and Release 11 provide for carrier aggregation to support higher bandwidth between a user equipment (UE) and base station (e.g., eNodeB) by integrating a number of discrete frequency bands. Spec. ¶¶ 1, 2, 22. In carrier aggregation, a primary cell corresponding to a particular frequency band serves a radio resource control (RRC) connection between the UE and base station, and one or more secondary cells of other bands are added or removed as required to modify the bandwidth. <http://www.3gpp.org/technologies/keywords-acronyms/101-carrier-aggregation-explained> (last viewed 1/15/19).

In some deployment scenarios of Release 11, such as uncoordinated, non-collocated site, and frequency repeater scenarios, an initial timing alignment for the secondary cell needs to be performed after a secondary cell is configured. Spec. ¶ 3. The invention uses Packet Data Control CHannel (PDCCH) order signaling to control the UE to perform uplink synchronization between the UE and base station on the secondary cell. Spec. ¶¶ 4, 6.

Claim 1, shown below, is illustrative of the claimed invention:

1. A method for initializing a secondary cell in a cellular communication system, comprising:
 - receiving at a user equipment from a base station a Radio Resource Control RRC configuration request for the secondary cell to perform the RRC configuration; and
 - performing, in response to receiving the RRC configuration request, uplink synchronization with the base station in the secondary cell;

mailed January 26, 2018, and the Reply Brief (“Reply Br.”) filed March 26, 2018.

wherein the performing, in response to receiving the RRC configuration request, uplink synchronization with the base station in the secondary cell comprises:

receiving a Physical Downlink Control Channel PDCCH order signaling from the base station; and

performing uplink synchronization with the base station in the secondary cell based on the PDCCH order signaling, including identifying a field of Carrier Indicator Field CIF in the PDCCH order signaling to determine the secondary cells for uplink synchronization.

App. Br. 11 (Claims App'x).

REJECTIONS

Claims 1, 6, 7, 11, 20, and 30 stand rejected under 35 U.S.C. § 103(a) based on Chin (US 2012/0176891 A1, July 12, 2012) and Pelletier (US 2011/0134774 A1, June 9, 2011). Final Act. 4–12.

Claims 3 and 13 stand rejected under 35 U.S.C. § 103(a) based on Chin, Pelletier, and Feuersanger (US 2013/0058315 A1, March 7, 2013). Final Act. 12–14.

Claims 4, 5, and 8 stand rejected under 35 U.S.C. § 103(a) based on Chin, Pelletier, and Westberg (US 2012/0218970 A1, August 30, 2012). Final Act. 14–17.

Claim 9 stands rejected under 35 U.S.C. § 103(a) based on Chin, Pelletier, and Kuo (US 2011/0103332 A1, May 5, 2011). Final Act. 17–19.

ANALYSIS

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (“*KSR*”). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Independent Claims 1, 11, 20, and 30

Appellants note that claims 1, 20, and 30 recite identifying a field of a Carrier Indicator Field (CIF) in the PDCCH order signaling to determine the secondary cells for uplink synchronization. App. Br. 6. Claim 11 recites setting a field of the CIF in the PDCCH order signaling to identify the secondary cells for uplink synchronization. *Id.*

Appellants argue for patentability of the independent claims over Pelletier, the reference the Examiner relied on to teach these particular claimed features, as follows:

Pelletier information messages are used for scheduling uplink and downlink resources. The present application describes performing uplink synchronization with the base station in the secondary cell based on the PDCCH order signaling, including identifying (or setting) a field of Carrier Indicator Field CIF in the PDCCH order signaling to determine (or identify) the secondary cells for uplink synchronization. Pelletier simply

describes having explicit instructions that include the CCIF that corresponds to the SCell. There is no determining the CIF which is used to determine SCells.

App. Br. 7; *see also* Reply Br. 4.

To the extent Appellants are arguing that Pelletier is limited to teaching scheduling uplink and downlink resources, and not uplink synchronization, we agree with the Examiner that Pelletier teaches uplink synchronization. Final Act. 3–4 citing Pelletier ¶¶ 3, 55, 60, 161, 162. Specifically, Pelletier teaches that its base station (or “NodeB” or “eNodeB”—Pelletier ¶ 16) generates and transmits a PDCCH order with a carrier indicator field (CIF) set to identify secondary cells for which the UE (Pelletier’s “wireless transmit/receive unit” (WTRU)) is to carry out random access (RA) for timing alignment to achieve uplink synchronization. Pelletier ¶ 161. Accordingly, we do not agree that Pelletier is limited to only teaching scheduling uplink and downlink resources, for it also teaches uplink synchronization of the UE and base station on the secondary cells.

We also find unpersuasive Appellants’ argument that Pelletier does not teach “determining the CIF which is used to determine the SCells.” App. Br. 7. Pelletier states the component carrier indicator field (CCIF) may be set by the base station to identify a secondary cell (SCell) or a plurality of SCells. Pelletier ¶¶ 42, 43, 60. A person of ordinary skill in the art would have understood that, in order to determine or set the CIF with the identities of the secondary cell or cells affected by the PDCCH order, the base station must identify the CIF field and set its value accordingly. The UE receiving this PDCCH order from the base station also must identify the CIF field in

order to determine the secondary cells on which RA, including timing alignment for uplink synchronization, is to be performed.

Accordingly, we are not persuaded the Examiner erred in the rejection of claims 1, 11, 20, and 30 under 35 U.S.C. § 103 based on Chin and Pelletier.

Claims 3 and 13

Appellants argue “[t]he [Examiner’s] reliance on Feuersanger does not disclose the missing elements of Pelletier.” App. Br. 7–8. Appellants also argue “while Feuersanger discusses a RACH preamble, there is no specific mention of a Carrier Indicator Field CIF in the PDCCH order signaling.” Reply Br. 5–6.

For reasons explained *supra* with respect to claims 1 and 11, we do not agree Pelletier is missing elements that required Feuersanger to support the Examiner’s rejection. Pelletier teaches a Carrier Indicator Field (CCIF) in a PDCCH order. *See, e.g.*, Pelletier ¶¶ 60, 161–162. Thus, we are not persuaded by Appellants’ argument and sustain the rejection of these claims.

Claims 4, 5, and 8

Appellants argue Westberg does not disclose the missing elements of Pelletier. App. Br. 8. As noted *supra*, we are not persuaded that the combination of Chin and Pelletier used in the Examiner’s rejection of independent claim 1, from which these claims depend, was missing elements. Accordingly, the Examiner had no need to rely on Westberg to disclose any alleged missing limitation.

Furthermore, Appellants’ argument merely summarizes what Westberg teaches and states various claim limitations without explaining why Westberg does not teach them. This form of argument is not persuasive

to show Examiner error. 37 C.F.R. § 41.37(c)(1)(iv) (“The arguments shall explain why the examiner erred as to each ground of rejection contested by appellant.”) (emphasis added); (“A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.”). Thus, we find Appellants’ argument unpersuasive for these additional reasons.

Claim 9

Appellants argue Kuo does not disclose the missing elements of Pelletier. App. Br. 8–9. Again, we do not agree Pelletier had deficiencies that the Examiner needed Kuo to provide in order to support the rejection of claim 1, from which claim 9 depends.

In the Reply Brief, Appellants argue for the first time that in Kuo “there is no specific mention of performing random access processes simultaneously or one by one for each of the plurality of secondary cells if the same TA [timing advance] information is used for the plurality of secondary cells.” Reply Br. 7. This argument was not submitted in the Appeal Brief (*see* App. Br. 8–9), Appellants do not contend that it is responsive to an argument raised in the Examiner’s answer, and no showing of good cause for its late submission has been presented. Accordingly, we do not consider the argument at this late stage of the appeal as the Examiner has not had an opportunity to consider and respond to it. 37 C.F.R. § 41.41(b)(2) (“Any argument raised in the reply brief which was not raised in the appeal brief, or is not responsive to an argument raised in the examiner’s answer, including any designated new ground of rejection, will not be considered by the Board for purposes of the present appeal, unless good cause is shown.”).

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Claims 6 and 7

For the reasons explained with respect to claim 1, we sustain the rejections of the remaining dependent claims 6 and 7 for which no separate arguments are submitted. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

We affirm the rejection of claims 1, 3–9, 11, 13, 20, and 30 under 35 U.S.C. § 103.

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