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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte AJAY K. VENKATSURESH and SURESH SANKA¹

Appeal 2015-007518
Application 13/151,218
Technology Center 2100

Before ALLEN R. MacDONALD, DANIEL N. FISHMAN, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1–3, 5–12, 14–21, 23–30, and 32–36, all pending claims of the application.² We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

¹ According to Appellants, the real party in interest is Qualcomm Incorporated. *See* Appeal Brief 2.

² Claims 1, 3, 10, 12, 19, 21, 28, and 30 are independent and claims 4, 13, 22, and 31 are cancelled.

BACKGROUND

The claimed invention relates to reducing lost data due to a parameter mismatch condition in a ciphered data stream. Spec. ¶¶ 1 and 7.³ Claim 1 is reproduced below with disputed limitation emphasized:

1. A method for determining mismatch of ciphering parameters in a wireless device, the method comprising:

examining a predefined ciphered field in one or more received Radio Link Control (RLC) layers in Protocol Data Units (PDUs) including examining if data in the predefined ciphered field of the PDU points to invalid positions lying beyond an end of the PDU to determine if the field is invalid;

determining when the predefined ciphered field is invalid over a predetermined sample number of PDUs;

determining a parameter mismatch of ciphering parameters when a predetermined number of samples of the predefined ciphered field that are determined as invalid exceed a predetermined threshold; and

buffering the one or more received RLC PDUs whenever the field is determined to be invalid during sampling over the predetermined sample number of PDUs.

REFERENCES

The art relied upon by the Examiner in rejecting the claims on appeal:

Jiang et al. (“Jiang ‘048”) US 2003/0091048 A1 May 15, 2003

³ Throughout this Opinion, we refer to: (1) Appellants’ Specification filed June 1, 2011 (“Spec.”); (2) the Final Office Action (“Final Act.”) mailed Aug. 27, 2014; (3) the Appeal Brief (“Appeal Br.”) filed Feb. 23, 2015; (4) the Examiner’s Answer (“Ans.”) mailed June 19, 2015; and (5) the Reply Brief (“Reply Br.”) filed Aug. 10, 2015.

Jiang et al. (“Jiang ’679”)	US 2006/0050679 A1	Mar. 9, 2006
Yi	US 7,760,634 B2	July 20, 2010
Guo et al. (“Guo”)	US 2011/0028171 A1	Feb. 3, 2011

REJECTIONS

Claims 1–3, 10–12, 19–21, and 28–30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jiang ’048 and Jiang ’679. Final Act. 4–14.

Claims 5–8, 14–17, 23–26, and 32–35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jiang ’048, Jiang ’679, and Yi⁴. Final Act. 14–20.

Claims 9, 18, 27, and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jiang ’048, Jiang ’679, and Guo. Final Act. 20–21.

Our review in this appeal is limited only to the above rejections and issues raised by Appellants. We have not considered other possible issues that have not been raised by Appellants and which are, therefore, not before us. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2014).

ISSUES

1. Whether the Examiner errs in finding the combination of Jiang ’048 and Jiang ’679 teaches or suggests “buffering the one or more received RLC PDUs whenever the field is determined to be invalid during sampling over the predetermined sample number of PDUs,” as recited in claim 1?

⁴ The Examiner’s rejection of claims 6 and 7 do not rely upon Yi as indicated at page 14 of the Final Office Action but instead rely upon Jiang ’048 and Jiang ’679. We find this to be harmless error.

2. Whether the Examiner errs in finding the combination of Jiang '048 and Jiang '679 teaches or suggests “recovering the buffered one or more PDUs after determining mismatch of the ciphering parameter,” as recited in claim 6?

3. Whether the Examiner errs in finding the combination of Jiang '048 and Jiang '679 teaches or suggests “scanning Hyper-Frame numbers (HFNs) over a window of HFNs for the buffered one or more received PDUs when the parameter mismatch is determined,” as recited in claim 7?

DISCUSSION

Claim 1

We have reviewed the Examiner’s rejections and the evidence of record in light of Appellants’ arguments that the Examiner has erred. We disagree with Appellants’ arguments and conclusions. We adopt as our own, (1) the findings and reasons set forth by the Examiner in the Office Action from which this appeal is taken and (2) the findings and reasons set forth in the Examiner’s Answer. We concur with the conclusions reached by the Examiner and further highlight specific findings and argument for emphasis as follows.

The Examiner relies on Jiang '679 to teach or suggest “buffering the one or more received RLC PDUs,” as recited in claim 1. Final Act. 8–9 (citing Jiang '679 ¶¶ 58–63 and 73 and Fig. 8). In particular, the Examiner finds that Jiang '679 implicitly describes buffering one or more received RLC PDUs whenever the field is determined to be invalid because a PDU that is being operated upon must be buffered as it must be resident in some computer memory for a computer-implemented process to be able to evaluate it. Ans. 4 (citing Jiang '679 ¶¶ 58–63 and 73 and Fig. 9).

Appellants contend the Examiner errs because Jiang '679 “is teaching discarding PDU’s that have parameter mismatch, not a buffering or storage of them.” Appeal Br. 11.

We find Appellants’ arguments unpersuasive. We agree with the Examiner’s finding that Jiang '679 teaches the claimed buffering of PDUs. Appellants in essence argue that the Examiner’s interpretation of the term “buffering” as recited in claim 1 is unreasonably broad. Appellants, however, fail to establish the Examiner’s interpretation is *not* the broadest reasonable interpretation consistent with Appellants’ Specification. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under a broadest reasonable interpretation, the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372 (Fed. Cir. 2004). The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1259-60 (Fed. Cir. 2010). The presumption that a term is given its ordinary and customary meaning may be rebutted by Appellants clearly setting forth a different definition of the term in the specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). Here, Appellants fail to demonstrate that “buffering” has been explicitly defined in Appellants’ Specification in a way that is inconsistent with the Examiner’s interpretation.

Accordingly, we determine that the Examiner’s interpretation of the term “buffering” is not inconsistent with Appellants’ Specification and is therefore, not shown to be erroneous. In light of this interpretation, we agree

with the Examiner's finding that the claimed "buffering," given a reasonable interpretation in light of the Specification, encompasses the storing of PDUs for the purpose of recovering the PDUs, as discussed in Jiang '679. Ans. 4–7 (citing Jiang '679 ¶¶ 26 and 41–73 and Figs. 8–9).

Appellants contend Jiang '679 cannot suggest "buffering the one or more received RLC PDUs . . . during sampling over the predetermined sample number of PDUs," as claimed, because Jiang '679 looks at each PDU individually for HFN adjustment. Appeal Br. 10–11. Appellants disagree with the Examiner's finding that *one or more* PDUs can be interpreted as a predetermined sample size of *a single PDU*. Reply Br. 5. Specifically, Appellants state:

[It] appears that the Examiner is advancing an understanding of claim construction that the meaning of "one or more" is either "one" or "two or more," and that the Office is free to bifurcate the term and choose what words to consider so as to simply and expediently dismiss consideration of the totality of the words "one or more." This is believed to be contradictory to the established case law.

Reply Br. 7.

Appellants' argument is unpersuasive because the Examiner's interpretation of "one or more," as recited in claim 1, is consistent with the broadest reasonable interpretation of the term. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 at 1364. We agree with the Examiner that use of the disjunctive in the phrase, based on its plain meaning, means that "one or more" may be alternatively interpreted as either "one" or "two or more." When a claim covers alternatives, the claim may be unpatentable if any of the alternatives within the scope of the claim are taught by the prior art. See *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001). Claim 1 is unpatentable, therefore, if

the prior art discloses sampling over the “one” PDU alternative or the “two or more” PDUs alternative. Appellants provide no definition from the Specification that would support Appellants’ proffered interpretation of “one or more” to mean exclusively “two or more.” *In re Morris*, 127 at 1048. We, therefore, agree with the Examiner’s finding that Jiang ’679 teaches or suggests a sample size of at least a single PDU. Ans. 7.

We, therefore, sustain the Examiner’s 35 U.S.C. § 103(a) rejection of claim 1. We also sustain the Examiner’s 35 U.S.C. § 103(a) rejection of independent claims 3, 10, 12, 19, 21, 28, and 30, which Appellants argue are patentable for similarly unpersuasive reasons. Appeal Br. 13. Dependent claims 2, 5, 8, 9, 12, 14, 17, 18, 20, 21, 23, 26, 27, 29, 30, 32, 35, and 36 are not separately argued. *See* Appeal Br. 13–14. Therefore, we likewise sustain the rejections of these claims under 35 U.S.C. § 103(a).

Claim 6

We have reviewed the Examiner’s rejections and the evidence of record in light of Appellants’ arguments that the Examiner has erred. We disagree with Appellants’ arguments and conclusions. We adopt as our own, (1) the findings and reasons set forth by the Examiner in the Office Action from which this appeal is taken and (2) the findings and reasons set forth in the Examiner’s Answer. We concur with the conclusions reached by the Examiner and further highlight specific findings and argument for emphasis as follows.

Appellants contend that Jiang ’679 does not teach or suggest “recovering the buffered one or more PDUs after determining mismatch of the ciphering parameter,” as recited in claim 6. Appeal Br. 14. Specifically,

Appellants state “re-deciphering a PDU with an adjusted HFN value in Jiang is not ‘recovery’ of buffered PDUs, but simply is a re-deciphering of a PDU current when the HFN value is adjusted and then subsequently deciphering all subsequently received PDUs with the adjusted HFN value.” Appeal Br. 14 (citing Jiang ’679 ¶ 73).

We find Appellants’ arguments unpersuasive. We agree with the Examiner’s finding that after length indicators are used to detect HFN unsynchronicity, the current HFN value is incremented by one and the last PDU containing an illegal LI together with all subsequent PDUs are re-deciphered using the adjusted HFN value and that Jiang ’679’s ability to re-decipher the PDU suggests recovering the buffered PDUs. Final Act. 15–16 (citing Jiang ’679 ¶ 73); Ans. 9–10.

Accordingly, we sustain the Examiner’s 35 U.S.C. § 103(a) rejection of claim 6, and of claims 15, 24, and 33, which Appellants argue are patentable for similarly unpersuasive reasons. Appeal Br. 14.

Claim 7

The Examiner relies upon Jiang ’679 to teach or suggest “scanning Hyper-Frame numbers (HFNs) over a window of HFNs for the buffered one or more received PDUs when the parameter mismatch is determined,” as recited in claim 7. Final Act. 16–17 (citing Jiang ’679 ¶ 44). Appellants contend that the cited paragraph from Jiang ’679 “is simply looking at a current PDU and detecting if the HFN in the current PDU shows unsynchronization to determine if HFN adjustment is to proceed” and thus “[t]here is no scanning of HFNs over a window of buffered PDUs.” Appeal Br. 15.

We find Appellants' arguments persuasive because the Examiner fails to indicate how Jiang '679's discussion of detecting HFN unsynchronization symptoms from the received PDU teaches or suggests scanning HFNs over *a window* of HFNs.

Accordingly, we are constrained to reverse the Examiner's 35 U.S.C. § 103(a) rejection of claim 7, and of claims 16, 25, and 34, which each recite commensurate limitations.

DECISION

We affirm the Examiner's decision rejecting claims 1–3, 5, 8–12, 14, 17–21, 23, 26–30, 32, 35, and 36 under 35 U.S.C. § 103(a).

We affirm the Examiner's decision rejecting claims 6, 15, 24, and 33 under 35 U.S.C. § 103(a).

We reverse the Examiner's decision rejecting claim 7, 16, 25, and 34 under 35 U.S.C. § 103(a).

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-IN-PART