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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/590,423	08/21/2012	Aleksandar Modrag Tasic	121973	9482
23696 7590 08/01/2014 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER TRAN, KHANH C	
			ART UNIT 2631	PAPER NUMBER
			NOTIFICATION DATE 08/01/2014	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary	Application No. 13/590,423	Applicant(s) TASIC ET AL.	
	Examiner KHANH C. TRAN	Art Unit 2631	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on _____.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) _____ is/are allowed.
- 7) ☒ Claim(s) 1, 11, 12, 14, 17 and 19 is/are rejected.
- 8) ☒ Claim(s) 2-10, 13, 15, 16, 18 and 20 is/are objected to.
- 9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 8/21/2012 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____ | 4) ☐ Other: _____ |

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

2. The RCE filed 7/17/2014 has been entered. Claims 1-20 are still pending in this Office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 11-12, 14 and 17 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Kaukovuori et al. U.S. Patent 8,442,473.

Regarding claim 1, Kaukovuori et al. discloses an apparatus (FIG. 15 embodiment) comprising:

a first amplifier stage configured to receive and amplify an input radio frequency (RF) signal and provide a first output RF signal to a first load circuit when the first amplifier stage is enabled, the input RF signal employing carrier aggregation comprising transmissions sent on multiple carriers at different frequencies to a wireless device, the

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first output RF signal including at least a first carrier of the multiple carriers (Kaukovuori et al. teaches **a method of receiving data** transmitted via a combination of at least a plurality of radio frequency signals **using carrier aggregation** (see column 2 lines 44-49). FIG. 15 discloses a Radio Frequency Integrated Circuit (RFIC1) 1 including first amplifier stage LNA to provide a first output RF signal to a digital data path. The two clusters are each received with different bandwidth filter (see column 10, lines 22-53).

and a second amplifier stage configured to receive and amplify the input RF signal and provide a second output RF signal to a second load circuit when the second amplifier stage is enabled, the second output RF signal including at least a second carrier of the multiple carriers different than the first carrier (similarly, FIG. 15 further discloses a Radio Frequency Integrated Circuit (RFIC1) 1 including second amplifier stage LNA to provide a second output RF signal to a digital data path. The two clusters are each received with different bandwidth filter (see column 10, lines 22-53)).

Regarding claim 11, Kaukovuori et al. further discloses an input matching circuit coupled to the first and second amplifier stages and configured to receive a receiver input signal and provide the input RF signal (FIG. 15 discloses an RF FEM coupled to the RFIC1 and RFIC2 and configured to provide an RF input (see column 10 lines 25-35).

Regarding claim 12, Kaukovuori et al. further discloses the input matching circuit being tunable and comprising at least one adjustable circuit component (FIG. 15

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discloses an RF FEM configured to split the RF input signal (see column 10 lines 25-35).

Regarding claim 14, Kaukovuori et al. further discloses the first amplifier stage configured to receive and amplify the input RF signal and provide the first output RF signal to the first load circuit when the first amplifier stage is enabled (as recited in claim 1 rejection, FIG. 15 discloses a Radio Frequency Integrated Circuit (RFIC1) 1 including first amplifier stage LNA to provide a first output RF signal to a digital data path. The two clusters are each received with different bandwidth filter (see column 10, lines 22-53)).

and the second amplifier stage configured to receive and amplify the input RF signal and provide the second output RF signal to the second load circuit when the second amplifier stage is enabled (similarly, FIG. 15 further discloses a Radio Frequency Integrated Circuit (RFIC1) 1 including second amplifier stage LNA to provide a second output RF signal to a digital data path. The two clusters are each received with different bandwidth filter (see column 10, lines 22-53))

Note: the rejection is based on ***the input RF signal (not a second input RF signal)***.

Regarding claim 17, claim is rejected on the same ground as for claim 1 because of similar scope.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if 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. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kaukovuori et al. U.S. Patent 8,442,473.

Regarding claim 19, claim is rejected on the same ground as for claim 1 because of similar scope. However, Kaukovuori et al. does not expressly disclose the first means for amplifying and the second means for amplifying as set forth in the application claim. Nevertheless, since FIG. 15 RFIC1 and RFIC2 employ LNAs (low noise amplifiers) as amplifying stages, therefore, one of ordinary skill in the art at the time the invention was

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made would have recognized the interchangeability of the LNAs, as taught in Kaukovuori et al. invention, for the claimed first means and second means for amplifying.

Allowable Subject Matter

5. Claims 2-10, 13, 15-16, 18 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH C. TRAN whose telephone number is (571)272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCT

***/KHANH C TRAN/
Primary Examiner, Art Unit 2631***