

Notice of Allowability	Application No. 14/051,646	Applicant(s) PAJUKOSKI ET AL.	
	Examiner OTIS L. THOMPSON, JR	Art Unit 2477	AIA (First Inventor to File) Status No

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed 2/23/2015.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. ☐ 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.
3. ☒ The allowed claim(s) is/are 1-7,9-24,35,36,38-43,45,46 and 50-61 (Renumbered 1-45 respectively). As a result of the allowed claim(s), 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/cph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☐ 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)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 7. <input type="checkbox"/> Other _____. |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | |

/OTIS L THOMPSON, JR/
Primary Examiner, Art Unit 2477

Art Unit: 2477

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

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Garrity, Reg. No. 60,470 on May 11, 2015.

The application has been amended as follows:

In the Claims:

7. (Currently Amended) The method of claim 1, where the unmodulated sequence comprises reference signals and the acknowledgement data ~~[[is]]~~ comprises a BPSK/QPSK modulated sequence.
19. (Currently Amended) The apparatus of claim 16, where the ~~[[the]]~~ acknowledgment with the scheduling request is transmitted on a physical uplink control channel.
21. (Currently Amended) The apparatus of claim 15, where the unmodulated sequence comprises reference signals and the acknowledgement data ~~[[is]]~~ comprises a BPSK/QPSK modulated sequence.
35. (Currently Amended) A method comprising:

receiving information on a scheduling resource on a physical uplink control channel; and

determining that the information received on the scheduling resource comprises an acknowledgment transmission, where the acknowledgement transmission comprises an unmodulated sequence in addition to acknowledgement data, and where the acknowledgment transmission is communicated on the scheduling resource if there is also a scheduling request combined with the acknowledgment transmission on the scheduling resource, else the acknowledgment transmission is communicated on another resource.

37. (Cancelled)

39. (Currently Amended) The method of claim [[31]]35 where the information is received from an evolved universal terrestrial radio access network.

40. (Currently Amended) A non-transitory computer readable medium encoded with a computer program executable by a processor to perform actions comprising:

receiving information on a scheduling resource on a physical uplink control channel; and

determining that the information received on the scheduling resource comprises an acknowledgment transmission, where the transmission comprises an unmodulated sequence in addition to acknowledgement data, and where the acknowledgment transmission is communicated on the scheduling resource if there is also a scheduling request combined with the acknowledgment transmission on the scheduling resource, else the acknowledgment transmission is communicated on another resource.

42. (Currently Amended) An apparatus comprising:

at least one processor; and

at least one memory including computer program code, where the at least one memory and the computer program code are configured, with the at least one processor, to cause the apparatus to at least:

receive information on a scheduling resource on a physical uplink control channel; and

determine that the information received on the scheduling resource comprises an acknowledgment data transmission, where the acknowledgement data transmission comprises an unmodulated sequence in addition to acknowledgment data, and where the acknowledgment data transmission is communicated on the scheduling resource if there is also a scheduling request combined with the acknowledgment data transmission on the scheduling resource, else the acknowledgment data transmission is communicated on another resource.

43. (Currently Amended) The apparatus of claim 42, where the at least one memory including the computer program code is configured with the at least one processor to cause the apparatus to respond accordingly to the determining that the information received on the scheduling resource comprises the acknowledgment data transmission.

44. (Cancelled)

Allowable Subject Matter

2. Claims 1-7, 9-24, 35, 36, 38-43, 45, 46, and 50-61 are allowed (Renumbered 1-45 respectively).

3. The following is an examiner's statement of reasons for allowance: the prior art does not teach or adequately suggest an unmodulated sequence in addition to acknowledgement data being sent on a physical uplink control channel.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OTIS L. THOMPSON, JR whose telephone number is (571)270-1953. The examiner can normally be reached on Monday to Thursday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Chirag Shah can be reached on (571)272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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.

/OTIS L THOMPSON, JR/
Primary Examiner, Art Unit 2477
May 11, 2015