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12/901,616	10/11/2010	David K. Mesecher	I-2-0108US08	1473
24374	7590	03/19/2012	EXAMINER	
VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			BOCURE, TESFALDET	
			ART UNIT	PAPER NUMBER
			2611	
			NOTIFICATION DATE	DELIVERY MODE
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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):

eoffice@volpe-koenig.com

DETAILED ACTION

1. This office action is in response to the application as originally filed on 10/11/2010 and claims 1-12 are pending in this application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 10/11/2011 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. Attached with this correspondence are the initialed copies of the IDS.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed “ must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the

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brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 5-8 are objected to because of the following informalities: the claimed "the antenna" in claim 5, line 5 should be amended to read as ---the antennas---. See the claimed "the plurality of antennas" in line 3. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 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 a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida et al., Yoshida hereinafter (US patent number 6,359,864).

Yoshida teaches a user equipment (UE) (fig. 2) comprising: circuitry configured to receive signal(s) transmitted by plurality of antennas (see plural transmitting antennas 107-1-to-107N in figure 1) of a base station; wherein the received signal having from each transmitting antenna a sequence of symbols unique to that antenna (see plurality of users and separate pilot sequences assigned to each antenna) and the received signal having a weighted

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sequence of symbols transmitted from all of the plurality of antennas (see weighting coefficients generated by elements 103-1-to-103-K); wherein the circuitry is further configured to derive a preferred weight for a subsequent received signal based on the received signal and transmit an indication of the preferred weight to the base station (see receiver in figure 2, claimed UE, performing closed loop so that the transmitter will adjust the weighing for subsequent transmission), as in claim 1.

Further to claims 2-12, Yoshida teaches that:

The UE of claim 1, wherein the sequences of symbols from each antenna and the weighted sequence of symbols are derived from a same type of sequence (see user, pilot and antenna weighting spreaded using respective spreading sequences), as in claim 2.

The UE of claim 2, wherein the same type of sequence is a pseudo random sequence (see spreaded user and pilot sequences by the respective encoder 101- to-101-K and 104-1-to-104-N in figure 1), as in claim 3.

The UE of claim 2, wherein the sequences of symbols from each antenna are pilot symbols (see pilot signals 40-1-to-40-N), as in claim 4.

A base station comprising:

a plurality of antennas that transmit signal(s), wherein each signal comprises a sequence of symbols unique to each one of the plurality of antennas (see plural transmitting antennas 107-1-to-107N in figure 1 and see also the plurality of users and separate pilot sequences assigned to each antenna) and the signal has a weighted sequence of symbols (see weighting generator 103-1-to-103-k),

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wherein the antenna is configured to receive a signal indicating a preferred weight for a subsequent transmission signal based on the preferred weight, as in claim 5.

The base station of claim 5, wherein the sequences of symbols and the weighted sequence of symbols are derived from a same type of sequence (see user, pilot and antenna weighting spreaded using respective spreading sequences), as in claim 6.

The base station of claim 6, wherein the same type of sequence is a pseudo random sequence (see spreaded user and pilot sequences by the respective encoder 101- to-101-K and 104-1-to-104-N in figure 1), as in claim 7.

The base station of claim 6, wherein the sequences of symbols are pilot symbols (see pilot signals 40-1-to-40-N), as in claim 8.

A method for deriving a preferred weight for a received signal from a Node B based on a received signal and transmitting an indication of the preferred weight to the base station comprising:

receiving signal(s) transmitted by plurality of antennas of a base station (see plural transmitting antennas 107-1-to-107N in figure 1) wherein the received signal has from each transmitting antenna a sequence of symbols unique to that antenna (see the plurality of users and separate pilot sequences assigned to each antenna) and the received signal has a weighted sequence of symbols transmitted from all of the plurality of antennas (see the plurality of users and separate pilot sequences assigned to each antenna);

deriving a preferred weight for a subsequent received signal based on the

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received signal; and

transmitting an indication of the preferred weight to the base station (see receiver in figure 2, claimed UE, performing closed loop so that the transmitter will adjust the weighing for subsequent transmission), as in claim 9.

The method of claim 9, wherein the sequences of symbols and the weighted sequence of symbols are derived from a same type of sequence (see user, pilot and antenna weighting spreaded using respective spreading sequences), as in claim 10.

The method of claim 10, wherein the same type of sequence is a pseudo random sequence (see spreaded user and pilot sequences by the respective encoder 101- to-101-K and 104-1-to-104-N in figure 1), as in claim 11.

The method of claim 10, wherein the sequences of symbols are pilot symbols(see pilot signals 40-1-to-40-N),as in claim 12.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent number 6,636,495 and 7,711,034 issued to Tangemann and Dabak et al. respectively disclose a receiver performing close loop control method for controlling the beam-forming weight of the transmitter.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TESFALDET BOCURE whose telephone

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number is (571)272-3015. The examiner can normally be reached on Mon-Fri (8:30a-6:30p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan M. Chieh can be reached on (571) 272-3042. 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.

/Tsfaldet Bocure/
Primary Examiner, Art Unit 2611

/T. B./
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