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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/623,307	01/15/2007	Frank M. Caimi	D053B/069987-077	4604
29391	7590	11/10/2010	EXAMINER	
BEUSSE WOLTER SANKS MORA & MAIRE, P. A. 390 NORTH ORANGE AVENUE SUITE 2500 ORLANDO, FL 32801			WENDELL, ANDREW	
			ART UNIT	PAPER NUMBER
			2618	
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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.

Office Action Summary

Application No. 11/623,307	Applicant(s) CAIMI ET AL.	
Examiner ANDREW WENDELL	Art Unit 2618	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 05 September 2010.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) 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

- 4) Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,5-10 and 12 is/are rejected.
- 7) Claim(s) 3,4 and 11 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ 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).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).
a) All b) Some * c) None of:
- Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - 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) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 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.

2. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shapiro et al. (US Pat# 5,973,568) in view of Weigand et al. (US Pat Pub# 2004/0201423).

Regarding claim 1, Shapiro teaches a first antenna ANT (Fig. 2); a first serial configuration of a first power amplifier 220 (Fig. 2) and a first matching network 222 (Fig. 2); a second serial configuration of a second power amplifier 224 (Fig. 2) and a second matching network 226 (Fig. 2); the first and the second power amplifiers supplying a respective first signal of a first power and a second signal of a second power different than the first power to the first antenna for transmitting (Col. 3 lines 31-42, teaches two different modes for each different band therefore it is obvious there is different power settings for each different mode); and the first and the second matching networks presenting respective first and second impedances to the respective first and second power amplifiers, the first and the second impedances responsive respectively to a power-related parameter of the first and the second signals (Col. 3 lines 31-42). Shapiro fails to teach a switching element.

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Weigand teaches a first antenna ANT (Fig. 1); a first serial configuration of a first power amplifier 106 (Fig. 1) and a first matching network 110 (Fig. 1); a second serial configuration of a second power amplifier 108 (Fig. 1) and a second matching network 112 (Fig. 1); a switching element 116 (Fig. 1) for switchably selecting the first or the second serial configuration for supplying a signal to the first antenna; and the first and the second matching networks presenting respective first and second impedances to the respective first and second power amplifiers, the first and the second impedances responsive respectively to a power-related parameter of the first and the second signals (Sections 0019 and 0023).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a switching element as taught by Weigand into Shapiro's apparatus in order to increase efficiency and reliability (Section 0006).

Regarding claim 2, the combination including Shapiro teaches wherein the first matching network 222 (Fig. 2) transforms the first impedance to an impedance presented in a direction toward the first antenna ANT (Fig. 2), and the second matching network 226 (Fig. 2) transforms the second impedance to an impedance presented in a direction toward the first antenna ANT (Fig. 2).

Regarding claim 5, the combination including Shapiro teaches wherein the first impedance presents a load impedance that optimizes the efficiency or the power added efficiency of the first power amplifier and the second impedance presents a load

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impedance that optimizes the efficiency or the power added efficiency of the second power amplifier (Col. 3 lines 31-42).

Regarding claim 6, the combination including Shapiro teaches wherein the power-related parameter comprises a power amplifier output power, an operating frequency of the communications apparatus or a voltage standing wave ratio on a conductive path between the first and the second power amplifiers and the first antenna (Col. 3 lines 31-42).

3. Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shapiro et al. (US Pat# 5,973,568) in view of Weigand et al. (US Pat Pub# 2004/0201423) and further in view of Matsuyoshi et al. (US 6,980,831).

Regarding claim 7, Shapiro teaches a first antenna ANT (Fig. 2); a first serial configuration of a first power amplifier 220 (Fig. 2) and a first matching network 222 (Fig. 2); a second serial configuration of a second power amplifier 224 (Fig. 2) and a second matching network 226 (Fig. 2); the first and the second power amplifiers supplying a respective first signal of a first power and a second signal of a second power different than the first power to the first antenna for transmitting (Col. 3 lines 31-42, teaches two different modes for each different band therefore it is obvious there is different power settings for each different mode); and the first and the second matching networks presenting respective first and second impedances to the respective first and second power amplifiers, the first and the second impedances responsive respectively to a power-related parameter of the first and the second signals (Col. 3 lines 31-42). Shapiro fails to teach a switching element and a signal combiner.

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Weigand teaches a first antenna ANT (Fig. 1); a first serial configuration of a first power amplifier 106 (Fig. 1) and a first matching network 110 (Fig. 1); a second serial configuration of a second power amplifier 108 (Fig. 1) and a second matching network 112 (Fig. 1); a switching element 116 (Fig. 1) for switchably selecting the first or the second serial configuration for supplying a signal to the first antenna; and the first and the second matching networks presenting respective first and second impedances to the respective first and second power amplifiers, the first and the second impedances responsive respectively to a power-related parameter of the first and the second signals (Sections 0019 and 0023).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a switching element as taught by Weigand into Shapiro's apparatus in order to increase efficiency and reliability (Section 0006).

Shapiro and Weigand fail to teach a signal combiner.

Matsuyoshi teaches a signal combiner 222 or 224 (Fig. 2); and a first receiver 226 (Fig. 2) for receiving a first received signal from the signal combiner 224 (Fig. 2).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a signal combiner as taught by Matsuyoshi into a switching element as taught by Weigand into Shapiro's apparatus in order to reduce deterioration and size (Col. 1 line 66-Col. 2 line 10).

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Regarding claim 8, Shapiro further teaches wherein the first matching network 222 (Fig. 2) transforms the first impedance to an impedance presented in a direction toward the first antenna ANT (Fig. 2), and the second matching network 226 (Fig. 2) transforms the second impedance to an impedance presented in a direction toward the first antenna ANT (Fig. 2).

Regarding claim 9, Shapiro teaches wherein the first impedance presents a load impedance that optimizes the efficiency or the power added efficiency of the first power amplifier and the second impedance presents a load impedance that optimizes the efficiency or the power added efficiency of the second power amplifier (Col. 3 lines 31-42).

Regarding claim 10, Matsuyoshi further teaches a first duplexer permitting a signal to pass between the combiner and the first receiver or between the combiner and the switching element (Fig. 2).

Regarding claim 12, Shapiro further teaches wherein the power-related parameter comprises a power amplifier output power, an operating frequency of the communications apparatus or a voltage standing wave ratio on a conductive path between the first and the second power amplifiers and the first antenna (Col. 3 lines 31-42).

Allowable Subject Matter

4. Claims 3-4 and 11 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

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 8:00-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. 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.

/Andrew Wendell/
Examiner, Art Unit 2618

11/6/2010