

EXHIBIT G



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/549,213	07/13/2012	David F. SORRELLS	19200.1.1.1.2.2.1.1	4930
22913	7590	08/05/2013	EXAMINER	
Workman Nydegger 60 East South Temple Suite 1000 Salt Lake City, UT 84111			BHATTACHARYA, SAM	
			ART UNIT	PAPER NUMBER
			2646	
			NOTIFICATION DATE	DELIVERY MODE
			08/05/2013	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):

Docketing@wnlaw.com

Office Action SummaryApplication No.
13/549,213Applicant(s)
SORRELLS ET AL.Examiner
Sam BhattacharyaArt Unit
2646AIA (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 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 _____.
 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) 1-18 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) 1-8 is/are rejected.
- 8) Claim(s) 9-18 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 13 July 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)
- 2) Information Disclosure Statement(s) (PTO/SB/08)

- 3) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. 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 –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-18 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Arpaia et al. (US 6,192,225).

Regarding claim 1, Arpaia discloses a system for frequency down-converting a modulated carrier signal (FIG. 5), comprising: a first switch, a first aperture signal, and a first energy storage element that down-converts said modulated carrier signal according to a first control signal and outputs a down-converted in-phase signal portion of said modulated carrier signal; a second switch, a second aperture signal, and a second energy storage element that down-converts said modulated carrier signal according to a second control signal and outputs a down-converted inverted in-phase signal portion of said modulated carrier signal (col. 4, lines 21-50); and a first differential amplifier circuit that combines said down-converted in-phase signal portion with said inverted in-phase signal portion and outputs a first channel down-converted differential in-phase signal (col. 5, lines 31-50).

Regarding claim 2, Arpaia discloses that said second control signal is delayed by $0.5+n$ cycles of said first control signal, wherein n comprises zero (0) or any integer greater than or equal to 1 after the occurrence of said first control signal (col. 4, lines 21-50).

Regarding claim 3, Arpaia discloses that the first and second aperture signal period is two (2) percent or greater of the modulated carrier period (col. 5, lines 4-20).

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Regarding claim 4, Arpaia discloses that the first and second aperture signal period is five (5) percent or greater of the modulated carrier period (col. 5, lines 4-20).

Regarding claim 5, Arpaia discloses that the first and second aperture signal period is ten (10) percent or greater of the modulated carrier period (col. 5, lines 4-20).

Regarding claim 6, Arpaia discloses that the first and second aperture signal period is twelve and a half (12.5) percent or greater of the modulated carrier period (col. 5, lines 4-20).

Regarding claim 7, Arpaia discloses a first filter that filters said down-converted in-phase signal portion; and a second filter that filters said down-converted inverted in-phase signal portion (col. 5, lines 51-62).

Regarding claim 8, Arpaia discloses that the first and second filters each comprise a low-pass filter (col. 5, lines 51-62).

Allowable Subject Matter

3. Claims 9-18 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.

4. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose that a third switch, a third aperture signal, and a third energy storage element that down-converts said modulated carrier signal according to a third control signal and outputs a down-converted quadrature-phase signal portion of said modulated carrier signal; a fourth switch, a fourth aperture signal, and a fourth energy storage element that down-converts said modulated carrier signal according to a fourth control signal and outputs a down-

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