



# UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
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Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/615,274	06/25/2013	8472936	IPHLNZ00504	2191

40518 7590 06/05/2013  
LEVINE BAGADE HAN LLP  
2400 GENG ROAD, SUITE 120  
PALO ALTO, CA 94303

## ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Raman K. Rao, Palo Alto, CA;  
Sunil K. Rao, Palo Alto, CA;  
Sanjay K. Rao, Palo Alto, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit [SelectUSA.gov](http://SelectUSA.gov).



5. **Change in Entity Status** (from status indicated above)

Applicant certifying micro entity status. See 37 CFR 1.29

**NOTE:** Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

Applicant asserting small entity status. See 37 CFR 1.27

**NOTE:** If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

Applicant changing to regular undiscounted fee status.

**NOTE:** Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

**NOTE:** The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Steven M. Giovannetti/

Date May 22, 2013

Typed or printed name Steven M .Giovan etti

Registration No. 51,739

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13615274
<b>Filing Date:</b>	13-Sep-2012
<b>Title of Invention:</b>	DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao
<b>Filer:</b>	Steven Michael Giovannetti/Kym Moore
<b>Attorney Docket Number:</b>	IPHLNZ00504

Filed as Small Entity

### Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
Utility Appl Issue Fee	2501	1	890	890

**Extension-of-Time:**



Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>890</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	15847427
<b>Application Number:</b>	13615274
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2191
<b>Title of Invention:</b>	DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao
<b>Customer Number:</b>	40518
<b>Filer:</b>	Steven Michael Giovannetti/Kym Moore
<b>Filer Authorized By:</b>	Steven Michael Giovannetti
<b>Attorney Docket Number:</b>	IPHLNZ00504
<b>Receipt Date:</b>	22-MAY-2013
<b>Filing Date:</b>	13-SEP-2012
<b>Time Stamp:</b>	17:34:28
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 890
RAM confirmation Number	4630
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Issue Fee Payment (PTO-85B)	IPHLNZ00504_20130522_issue _fee_transmittal.pdf	101315	no	2
			62#7c4aa3c731ce31959abfb1209fc#8659# fa70		

**Warnings:**

**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	30697	no	2
			#429fc992#b3a05a38f220f6173ccce#313 #5c7		

**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>	132012
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**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**



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NOTICE OF ALLOWANCE AND FEE(S) DUE

40518 7590 04/30/2013
LEVINE BAGADE HAN LLP
2400 GENG ROAD, SUITE 120
PALO ALTO, CA 94303

EXAMINER
MEHRPOUR, NAGHMEH
ART UNIT PAPER NUMBER

2641
DATE MAILED: 04/30/2013

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

TITLE OF INVENTION: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS

Table with 7 columns: APPLN. TYPE, ENTITY STATUS, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE 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.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.
If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.
If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".
For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

40518 7590 04/30/2013  
**LEVINE BAGADE HAN LLP**  
 2400 GENG ROAD, SUITE 120  
 PALO ALTO, CA 94303

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/615,274	09/13/2012	Raman K. Rao	IPHLN200504	2191

TITLE OF INVENTION: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$890	\$0	\$0	\$890	07/30/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
MEHRPOUR, NAGHMEH	2641	455-418000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. <b>Use of a Customer Number is required.</b></p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____</p> <p>3 _____</p>
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**3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)**

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE \_\_\_\_\_ (B) RESIDENCE: (CITY and STATE OR COUNTRY) \_\_\_\_\_

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
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5. **Change in Entity Status** (from status indicated above)

- Applicant certifying micro entity status. See 37 CFR 1.29
- Applicant asserting small entity status. See 37 CFR 1.27
- Applicant changing to regular undiscounted fee status.

**NOTE:** Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

**NOTE:** If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

**NOTE:** Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

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NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
13/615,274 09/13/2012 Raman K. Rao IPHLNZ00504 2191

40518 7590 04/30/2013
LEVINE BAGADE HAN LLP
2400 GENG ROAD, SUITE 120
PALO ALTO, CA 94303

EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT PAPER NUMBER

2641

DATE MAILED: 04/30/2013

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



<b>Notice of Allowability</b>	<b>Application No.</b> 13/615,274	<b>Applicant(s)</b> RAO ET AL.	
	<b>Examiner</b> MELODY MEHRPOUR	<b>Art Unit</b> 2641	<b>AIA (First Inventor to File) Status</b> 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 4/26/13.  
 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 1-20. 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/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto: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: \_\_\_\_\_.

**Interim copies:**

- a)  All    b)  Some    c)  None of the: Interim copies of the priority documents have been 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)**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____</li> <li>3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> <li>4. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____.</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>7. <input type="checkbox"/> Other _____.</li> </ol> |
|--|---|

/MELODY MEHRPOUR/  
Primary Examiner, Art Unit 2641

<b>Search Notes</b>  	<b>Application/Control No.</b>  13615274	<b>Applicant(s)/Patent Under Reexamination</b>  RAO ET AL.
	<b>Examiner</b>  MELODY MEHRPOUR	<b>Art Unit</b>  2617

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
455	414.1, 417-419, 403, 407-409, 461, 571, 450, 452.2, 509, 67.11, 411, 67.13,	9/26/2012	NM
370	452,2, 328, 230.1, 331, 260, 389, 254, 340, 336, 242, 408, 232, 392, 310, 520, 401	9/26/2012	NM
Updated		1/10/2013	NM
Updated		4/29/2013	NM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	9/26/2012	NM
EAST	1/10/2013	NM
Updated	4/29/2013	NM
Inventor search is done in eDAN	4/29/2013	NM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
455	418	4/29/2013	NM
Interference search is attached		4/29/2013	NM

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I hereby certify that this correspondence is being electronically transmitted to the USPTO on the date shown below.  
Date: April 26, 2013 Signature: .....(Quyen Nguyen)..... (Quyen Nguyen)

Please enter

/N.M./

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

04/29/2013

Application No.: 13/615,274  
Confirmation No.: 2191  
Filing Date: September 13, 2012  
Inventor(s): Raman K. Rao et al.  
Title: Dynamically Configurable IP Based Wireless Devices and Wireless Networks  
Examiner: Naghmeh Mehrpour  
Group Art Unit: 2641

**RESPONSE TO FINAL OFFICE ACTION**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is in response to the final Office Action dated January 11, 2013 for which a response was due on April 11, 2013. Filed herewith is a Petition and fee for a 1-month extension of time, thereby extending the deadline for response to May 11, 2013. Accordingly, this response is timely filed. Reconsideration and allowance of the pending claims, in light of the Remarks presented herein are respectfully requested.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 5 of this paper.



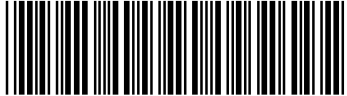
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
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 P.O. Box 1450  
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BIB DATA SHEET

CONFIRMATION NO. 2191

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.		
13/615,274	09/13/2012 RULE	455	2641	IPHLNZ00504		
<b>APPLICANTS</b> Raman K. Rao, Palo Alto, CA; Sunil K. Rao, Palo Alto, CA; Sanjay K. Rao, Palo Alto, CA;						
<b>** CONTINUING DATA *****</b> This application is a CON of 13/287,040 11/01/2011 which is a CON of 13/047,718 03/14/2011 PAT 8090356 which is a CON of 09/591,381 06/09/2000 PAT 7929950 which is a CIP of 09/281,739 06/04/1999 PAT 6169789 which is a CIP of 08/764,903 12/16/1996 ABN						
<b>** FOREIGN APPLICATIONS *****</b>						
<b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY **</b> 09/25/2012						
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Met after Allowance NM Initials	<b>STATE OR COUNTRY</b> CA	<b>SHEETS DRAWINGS</b> 5	<b>TOTAL CLAIMS</b> 20	<b>INDEPENDENT CLAIMS</b> 1
Verified and Acknowledged	/MELODY MEHRPOUR/ Examiner's Signature					
<b>ADDRESS</b> LEVINE BAGADE HAN LLP 2400 GENG ROAD, SUITE 120 PALO ALTO, CA 94303 UNITED STATES						
<b>TITLE</b> Dynamically Configurable IP Based Wireless Devices and Wireless Networks						
<b>FILING FEE RECEIVED</b> 530	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees				
		<input type="checkbox"/> 1.16 Fees (Filing)				
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)				
		<input type="checkbox"/> 1.18 Fees (Issue)				
		<input type="checkbox"/> Other _____				
		<input type="checkbox"/> Credit				

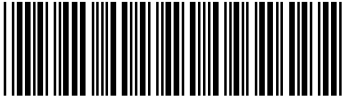
<b>Issue Classification</b> 	<b>Application/Control No.</b> 13615274	<b>Applicant(s)/Patent Under Reexamination</b> RAO ET AL.
	<b>Examiner</b> MELODY MEHRPOUR	<b>Art Unit</b> 2641

CPC			Type	Version
Symbol				


CPC Combination Sets					
Symbol		Type	Set	Ranking	Version

US ORIGINAL CLASSIFICATION				INTERNATIONAL CLASSIFICATION												
CLASS	SUBCLASS			CLAIMED				NON-CLAIMED								
455	418			H	0	4	W	4 / 00 (2009.0)								
<b>CROSS REFERENCE(S)</b>																
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)															

NONE	<b>Total Claims Allowed:</b>	
(Assistant Examiner)	(Date)	20
/MELODY MEHRPOUR/ Primary Examiner, Art Unit 2641	04/29/2013	O.G. Print Claim(s) 1
(Primary Examiner)	(Date)	O.G. Print Figure 2B

<b>Issue Classification</b> 	<b>Application/Control No.</b> 13615274	<b>Applicant(s)/Patent Under Reexamination</b> RAO ET AL.
	<b>Examiner</b> MELODY MEHRPOUR	<b>Art Unit</b> 2641


NONE		<b>Total Claims Allowed:</b>	
(Assistant Examiner)		20	
		(Date)	
/MELODY MEHRPOUR/ Primary Examiner. Art Unit 2641		04/29/2013	
(Primary Examiner)		(Date)	
		O.G. Print Claim(s)	O.G. Print Figure
		1	2B

<b>Issue Classification</b> 	<b>Application/Control No.</b> 13615274	<b>Applicant(s)/Patent Under Reexamination</b> RAO ET AL.
	<b>Examiner</b> MELODY MEHRPOUR	<b>Art Unit</b> 2641

<input checked="" type="checkbox"/> <b>Claims renumbered in the same order as presented by applicant</b> <input type="checkbox"/> <b>CPA</b> <input checked="" type="checkbox"/> <b>T.D.</b> <input type="checkbox"/> <b>R.1.47</b>															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
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NONE		<b>Total Claims Allowed:</b>	
		20	
(Assistant Examiner)	(Date)	O.G. Print Claim(s)	O.G. Print Figure
/MELODY MEHRPOUR/ Primary Examiner. Art Unit 2641	04/29/2013	1	2B
(Primary Examiner)	(Date)		

## EAST Search History

## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"8090356"	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:01
L2	0	"13615478"	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:06
L3	1558	(server with carrier).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:19
L4	11796	(server with function).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:19
L5	86	3 and 4	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:20
L6	894	(dynamically with functions).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:36
L7	49	6 and 4	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 11:38
L8	799	(dynamically adj configurable).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 12:57
L9	37	6 and 8	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 12:57
L10	711	(internet with dynamically).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 13:39
L11	24	10 and 4	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/29 13:39
S14	209	(switching with instructed).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:00
S15	22	(dynamic adj conversion).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:00
S16	46263	(control with remote).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:03
S17	11	S14 and S16	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:03
S18	5201	(INTERNET WITH CONTENT).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:12
S19	331	S16 AND S18	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:12
S20	0	S14 AND S18	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:12
S21	0	S14 AND S19	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:12
S22	41	(REGULAR ADJ TELEPHONE).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:12
S23	33	(FUNCTIONAL ADJ INSTRUCTIONS).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:16
S24	1	(AIRWAVE WITH LOCAL).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:18



## EAST Search History

S25	195	(PUBLIC WITH DYNAMIC).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:21
S26	10	S25 AND S16	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:21
S27	1300	(VOICE WITH CONVERSION).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:23
S28	43	S27 AND S16	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:23
S29	22	(DYNAMIC ADJ CONVERSION).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:28
S30	1039	(DYNAMIC WITH REMOTE).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:28
S31	12	S30 AND S18	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/26 16:28
S37	3	(public adj airwave).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:06
S38	2199	(public with memory).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:07
S39	1552	(server adj control).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:07
S40	0	S38 and S39	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:07
S41	490	(facilitate with dynamic).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:08
S42	0	S39 and S41	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:08
S43	4	S38 and S41	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:08
S44	18156	(memory with switching).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:09
S45	4	S39 and S44	US-PGPUB; USPAT; UPAD	OR	OFF	2012/07/09 14:09
S46	1	"20120046021"	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:38
S47	27	(TV WITH ACTING).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:47
S48	284	(WAVES WITH ACTING).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:47
S49	240	(WAVES WITH DYNAMIC).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:47
S50	926	(CONVERSION WITH DYNAMIC).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:48
S51	10	S49 AND S50	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:48
S52	0	(FUNCTION WITH FACILITE).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:49
S53	1621	(FUNCTION WITH FACILITATE).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:49
S54	4	S50 and S53	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:49
S55	4453	(dynamic with server).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:50
S56	50	S50 and S55	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:50

EAST Search History

S57	2	S49 and S55	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:54
S58	0	(refereing with update).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:58
S59	188	(referencing with update).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 12:58
S60	1	S55 and S59	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:22
S61	708	(binding with identifier).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:24
S62	7	S55 and S61	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:25
S63	249	(acknowledgement with agent).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:44
S64	2	S53 and S63	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:44
S65	0	S59 and S63	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:45
S66	0	S63 and S48	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:45
S67	3	S53 and S48	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 13:45
S68	3483	(SIGNALING WITH MOBILE).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 14:03
S69	0	S59 AND S68	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 14:04
S70	4	S63 AND S68	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 14:04
S71	1157	(MESSAGE WITH BINDING).CLM.	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 14:07
S72	52	S68 AND S71	US-PGPUB; USPAT; UPAD	OR	OFF	2013/04/02 14:07

4/ 29/ 2013 1:40:58 PM

C:\Users\nmehrpour\Documents\EAST\Workspaces\13287040.wsp

I hereby certify that this correspondence is being electronically transmitted to the USPTO on the date shown below.

Date: April 26, 2013 Signature: ...../Quyen Nguyen/..... (Quyen Nguyen)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 13/615,274  
Confirmation No.: 2191  
Filing Date: September 13, 2012  
Inventor(s): Raman K. Rao et al.  
Title: Dynamically Configurable IP Based Wireless Devices and Wireless Networks  
Examiner: Naghmeh Mehrpour  
Group Art Unit: 2641

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Sir:

This is in response to the final Office Action dated January 11, 2013 for which a response was due on April 11, 2013. Filed herewith is a Petition and fee for a 1-month extension of time, thereby extending the deadline for response to May 11, 2013. Accordingly, this response is timely filed. Reconsideration and allowance of the pending claims, in light of the Remarks presented herein are respectfully requested.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 5 of this paper.

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**In the claims**

1. (Previously presented): A wireless communication system, comprising:  
a wireless device which supports voice and data communications;  
a server; and  
a memory, wherein a processor is communicatively coupled with the memory,  
wherein the memory stores functional instructions including instructions for use in  
providing a plurality of functions to the wireless device, at least one of the functional  
instructions provided for switching between one or more networks including at least one  
public network, and  
wherein the memory further stores a plurality of communication protocols, that  
facilitate communication between the server and the wireless device, and wherein the server  
is configured to send to the wireless device a plurality of functions, wherein the wireless  
device is dynamically configurable from a first function to a second function to enable a  
plurality of functions at the wireless device and wherein the wireless device is configured for  
Internet access.
2. (Original): The system of claim 1, wherein the server is located at a carrier  
for the wireless device.
3. (Original): The system of claim 1, wherein the wireless device receives a  
functional instruction to access radio frequency waves, thereby acting as a radio.
4. (Original): The system of claim 1, wherein the wireless device receives a  
functional instruction to access TV waves, thereby acting as a TV.

5. (Original): The system of claim 1, wherein the wireless device receives a functional instruction to access TV waves, and the wireless device transmits the functional instruction to a TV.

6. (Original): The system of claim 1, wherein the wireless device receives a functional instruction to access cellular data waves, thereby acting as a cellular telephone.

7. (Original): The system of claim 1, wherein the wireless device receives a functional instruction from the server at a carrier to adapt to a different frequency and wireless protocol, thereby allowing the wireless device to switch between a first network and a second network dynamically.

8. (Original): The system of claim 1, wherein the wireless device includes any of a TV controller, garage controller, cordless phone, cellular device, mobile device, and other intelligent appliances.

9. (Original): The system of claim 1, wherein the wireless device is adapted to query a server for frequency to communicate with a separate device.

10. (Original): The system of claim 1, wherein the wireless device is adapted to work in conjunction with a wireless local area network and wherein the wireless device is coupled to the memory and the processor.

11. (Original): The system of claim 1, wherein the server is located on the Internet or at a carrier base station.

12. (Original): The system of claim 1, wherein the wireless device is adapted to be reconfigured by a carrier to use a different communication protocol through use of functional instructions transmitted over a carrier.

13. (Original): The system of claim 1, wherein the functional instructions include sets of functions instructions, and wherein a function instruction set is a set of commands that enables wireless device reconfiguration.

14. (Original): The system of claim 1, wherein the wireless device utilizes a first protocol and is adapted to be reconfigured by a public carrier such that the wireless devices utilizes a second protocol.

15. (Original): The system of claim 1, wherein the wireless device utilizes a local network box to identify the location of a user.

16. (Original): The system of claim 1, wherein the wireless device is adapted to be reconfigured by a public carrier based upon a GPS location of the wireless device.

17. (Original): The system of claim 1, wherein the wireless device is adapted to be reconfigured based upon its proximity to an access point or local or office network.

18. (Original): The system of claim 1, wherein the wireless device is adapted to recognize its proximity to various wireless networks and initiate a configuration based thereon.

19. (Original): The system of claim 1, wherein the wireless device is adapted to store one or more profiles on the server.

20. (Original): The system of claim 1, wherein a set of functional instructions is any set of commands that can reconfigure parameters of the wireless device.

**REMARKS**

Claims 1-22 were pending in the present application. Accordingly, claims 1-22 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. No new matter has been added.

**Double Patenting**

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of co-pending U.S. Patent Application No. 13/615,365, claims 34-66 of co-pending U.S. Patent Application No. 13/287,040, and claims 1-20 of co-pending U.S. Patent Application No. 13/615,478.

In response, Applicants direct the Examiner's attention to page 2 of the Terminal Disclaimer filed in the present application on December 28, 2012. That Terminal Disclaimer listed the above referenced patent applications, i.e., U.S. Patent Application No. 13/615,365, U.S. Patent Application No. 13/287,040, and U.S. Patent Application No. 13/615,478. It would appear that the Terminal Disclaimer filed on December 28, 2012 was overlooked as the Terminal Disclaimer overcomes the above rejection.

Therefore, Applicants respectfully request the reconsideration and withdrawal of the rejections under non-statutory obviousness-type double patenting.

### CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections and pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the appropriate fee and/or petition is not filed herewith and the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with this filing to **Deposit Account No. 50-3973** referencing Attorney Docket No. **IPHLNZ00504**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

/Steven M. Giovannetti/

Steven M. Giovannetti  
Registration No. 51,739

**Customer No. 40518**  
Levine Bagade Han LLP  
2400 Geng Road, Suite 120  
Palo Alto, CA 94303  
Direct: (650) 646-2570  
Fax: (650) 284-2180



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b>		Docket Number (Optional) IPHLNZ00504
Application Number <b>13/615,274</b>	Filed <b>September 13, 2012</b>	
For <b>Dynamically Configurable IP Based Wireless Devices and Wireless Networks</b>		
Art Unit <b>2641</b>	Examiner <b>Naghmeh Mehrpour</b>	
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application. The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):		
	<u>Fee</u>	<u>Small Entity Fee</u>
<input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$200	\$100
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$600	\$300
<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1,400	\$700
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$2,200	\$1,100
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$3,000	\$1,500
		<u>Micro Entity Fee</u>
		\$50
		\$150
		\$350
		\$550
		\$750
<input checked="" type="checkbox"/> Applicant asserts small entity status. See 37 CFR 1.27.		
<input type="checkbox"/> Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.		
<input type="checkbox"/> A check in the amount of the fee is enclosed.		
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.		
<input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.		
<input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>50-3973</u>		
<input checked="" type="checkbox"/> Payment made via EFS-Web.		
<b>WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</b>		
I am the		
<input type="checkbox"/> applicant.		
<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>51,739</u>		
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number _____		
<u>/Steven M. Giovannetti/</u>	<u>April 26, 2013</u>	
Signature	Date	
<u>Steven M. Giovannetti</u>	<u>(650) 646-2570</u>	
Typed or printed name	Telephone Number	
<b>NOTE:</b> This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.		

\* Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 5 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13615274
<b>Filing Date:</b>	13-Sep-2012
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Devices and Wireless Networks
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao
<b>Filer:</b>	Steven Michael Giovannetti/Quyen Nguyen
<b>Attorney Docket Number:</b>	IPHLNZ00504

Filed as Small Entity

### Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				
Extension - 1 month with \$0 paid	2251	1	100	100

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>100</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	15626221
<b>Application Number:</b>	13615274
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2191
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Devices and Wireless Networks
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao
<b>Customer Number:</b>	40518
<b>Filer:</b>	Steven Michael Giovannetti/Quyen Nguyen
<b>Filer Authorized By:</b>	Steven Michael Giovannetti
<b>Attorney Docket Number:</b>	IPHLNZ00504
<b>Receipt Date:</b>	26-APR-2013
<b>Filing Date:</b>	13-SEP-2012
<b>Time Stamp:</b>	16:13:18
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$100
RAM confirmation Number	4925
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		IPHLNZ00504_20130426_respo nse_final_oa.pdf	1119816 80#f9baf101e3285a572730c579b#afcc#52 1ea3	yes	6
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Amendment After Final	1	1	
		Claims	2	4	
		Applicant Arguments/Remarks Made in an Amendment	5	6	
<b>Warnings:</b>					
<b>Information:</b>					
2	Extension of Time	IPHLNZ00504_20130426_exten sion_of_time.pdf	292912 cc8374551f098ca541ab9c44685#3004c44 b77bc	no	1
<b>Warnings:</b>					
<b>Information:</b>					
3	Fee Worksheet (SB06)	fee-info.pdf	30590 2b27eb60760803e1#44bb530#8ea#c0cc 502f9f	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1443318		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number <b>13/615,274</b>	Filing Date <b>09/13/2012</b>	<input checked="" type="checkbox"/> To be Mailed
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ENTITY:  LARGE  SMALL  MICRO

**APPLICATION AS FILED – PART I**

FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 = *		X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

**APPLICATION AS AMENDED – PART II**

	(Column 1)	(Column 2)	(Column 3)	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
<b>AMENDMENT</b>	<b>04/26/2013</b>	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR			
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$40 = 0
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	X \$210 = 0
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))					
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	<b>0</b>

	(Column 1)	(Column 2)	(Column 3)	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
<b>AMENDMENT</b>		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR			
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))					
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE  
/NICHELE PETERSON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 13/615,274, 09/13/2012, Raman K. Rao, IPHLNZ00504, 2191
Row 2: 40518, 7590, 01/11/2013, LEVINE BAGADE HAN LLP, 2400 GENG ROAD, SUITE 120, PALO ALTO, CA 94303
Row 3: EXAMINER, MEHRPOUR, NAGHMEH
Row 4: ART UNIT, PAPER NUMBER, 2641
Row 5: MAIL DATE, DELIVERY MODE, 01/11/2013, PAPER

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.

<b>Office Action Summary</b>	<b>Application No.</b> 13/615,274	<b>Applicant(s)</b> RAO ET AL.	
	<b>Examiner</b> MELODY MEHRPOUR	<b>Art Unit</b> 2641	

-- 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 03 January 2013.
- 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) 1-20 is/are rejected.
- 8)  Claim(s) \_\_\_\_\_ is/are objected to.
- 9)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  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).
- 12)  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**

- 13)  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:  
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)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.



## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) filed references listed in the information Disclosure submitted on 1/03/13 has been considered by the examiner (see attached PTO-1449).

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

Art Unit: 2641

double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-20, are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No.13615365, claims 34-66 of copending Application No. 13287040, and claims 1-20 of copending Application No.13615478, Although the conflicting claims are not identical, they are not patentably distinct from each other because they all teach a wireless communication and control system including a wireless device. There is a central server for storing communication protocols and control protocols and communicating the communication protocols and selectively communicating the control protocols between the wireless device and the central server. A communication protocol configures the system for communication and control protocols configure the system as one of a selection of intelligent appliance controllers. Alternately the control protocols configure the system as one of a selection of Internet terminals. The wireless device is any hand-held communication device, such as a hand-held computing device, wireless telephone, or cellular phone.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented

### Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELODY MEHRPOUR whose telephone number is (571)272-7913. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, supervisor, C Appiah can be reached on 571-272-70237904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 13/615,274

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Art Unit: 2641

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.

/Naghmeh Mehrpour/

Primary Examiner, Art Unit 2617

Jan 10, 2013

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<i>Complete if Known</i>	
		Application Number	13/615,274
		Filing Date	September 13, 2012
		First Named Inventor	Raman K. RAO
		Art Unit	2641
		Examiner Name	Naghmeh Mehrpour
Sheet	1	of	2
		Attorney Docket Number	IPHLNZ00504

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1.	4,465,401	08-14-1984	Stoddord et al.	
	2.	4,675,653	06-23-1987	Priestly	
	3.	5,195,130	03-16-1993	Weiss et al.	
	4.	5,379,341	01-03-1995	Wan	
	5.	5,410,738	04-25-1995	Diepstraten et al.	
	6.	5,513,242	04-30-1996	Mukerjee et al.	
	7.	5,517,553	05-14-1996	Sato	
	8.	5,539,391	07-23-1996	Yuen	
	9.	5,555,258	09-10-1996	Snelling et al.	
	10.	5,559,794	09-24-1996	Willis et al.	
	11.	5,565,929	10-15-1996	Tanaka	
	12.	5,566,205	10-15-1996	Delline	
	13.	5,577,118	11-19-1996	Sasaki et al.	
	14.	5,872,926	02-16-1999	Levac et al.	
	15.	5,905,958	05-18-1999	Houde	
	16.	5,907,580	05-25-1999	Cummings	
	17.	5,934,858	08-10-1999	Christenson	
	18.	5,943,625	08-24-1999	Yeom et al.	
	19.	6,035,212	03-07-2000	Rostoker et al.	
	20.	6,049,289	04-11-2000	Waggoner et al.	
	21.	6,085,101	07-04-2000	Jain et al.	
	22.	6,167,271	12-26-2000	Parker et al.	
	23.	6,169,789	01-02-2001	Rao et al.	
	24.	6,172,985	01-09-2001	Gilbert	
	25.	6,185,418	02-06-2001	MacLellan et al.	
	26.	6,186,630	02-13-2001	Miyashita	
	27.	6,363,249	03-26-2002	Nordeman et al.	
	28.	6,405,033	06-11-2002	Kennedy et al.	
	29.	6,421,429	07-16-2002	Merritt et al.	
	30.	6,480,587	11-12-2002	Rao et al.	
	31.	6,826,405	11-30-2004	Doviak et al.	
	32.	7,286,658	10-23-2007	Henderson	
	33.	7,929,950	04-19-2011	Rao et al.	
	34.	8,090,356	01-03-2012	Rao et al.	
	35.	2011/0165877	07-07-2011	Rao et al.	
	36.	D374,675	10-15-1996	Sakai et al.	

Examiner Signature	/Naghmeh Mehrpour/	Date Considered	01/10/2013
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /N.M./

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<i>Complete if Known</i>		
				Application Number	13/615,274	
				Filing Date	September 13, 2012	
				First Named Inventor	Raman K. RAO	
				Art Unit	2641	
				Examiner Name	Naghmeh Mehrpour	
Sheet	2	of	2	Attorney Docket Number	IPHLNZ00504	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	37.	WO	1992/003884	03-05-1992	Haber et al.		

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP §01.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	/Naghmeh Mehrpour/	Date Considered	01/10/2013
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /N.M./

I hereby certify that this correspondence is being electronically transmitted to the USPTO on the date shown below.

Date: January 3, 2013 Signature: ...../Laura L. Gallagher/..... (Laura L. Gallagher)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 13/615,274  
Confirmation No.: 2191  
Filing Date: September 13, 2012  
Inventor(s): Raman K. RAO et al.  
Title: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS  
DEVICES AND WIRELESS NETWORKS  
Examiner: Naghmeh Mehrpour  
Group Art Unit: 2641

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**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.97 and §1.98, Applicants submit for consideration in the above-captioned application the documents listed on the attached Form PTO/SB/08a/b. A copy of the foreign document is submitted herewith. The Examiner is requested to make these documents of record.



Related Applications

Applicants wish to bring to the Examiner's attention, related applications and patents commonly assigned to the assignee of the present invention:

- U.S. Patent Application No. 08/764,903 filed December 16, 1996
- U.S. Patent Application No. 09/281,739 filed June 4, 1999
- U.S. Patent Application No. 09/591,381, filed June 9, 2000
- U.S. Patent Application No. 10/911,211 filed October 13, 2004
- U.S. Patent Application No. 13/047,718 filed March 14, 2011
- U.S. Patent Application No. 13/287,040 filed November 1, 2011
- U.S. Patent Application No. 13/615,365 filed September 13, 2012
- U.S. Patent Application No. 13/615,384 filed September 13, 2012
- U.S. Patent Application No. 13/615,478 filed September 13, 2012

This Information Disclosure Statement is submitted after receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance. The required fee is being concurrently submitted via EFS-Web.

Applicants would appreciate the Examiner initialing and returning the Form PTO/SB/08a/b, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. §1.97 and §1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the event the appropriate fee and/or petition is not filed herewith and the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with this filing to **Deposit Account No. 50-3973** referencing Attorney Docket No.

Application No.: 13/615,274

Attorney Docket No.: IPHLNZ00504

IPHLNZ00504. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

/Steven M. Giovannetti/

Steven M. Giovannetti  
Registration No. 51,739


**Customer No. 40518**  
Levine Bagade Han LLP  
2400 Geng Road, Suite 120  
Palo Alto, CA 94303  
Direct: (650) 646-2570  
Fax: (650) 284-2180

/Naghmeh Mehrpour/

01/10/2013

3 of 3

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /N.M./

<b>Search Notes</b>  	<b>Application/Control No.</b>  13615274	<b>Applicant(s)/Patent Under Reexamination</b>  RAO ET AL.
	<b>Examiner</b>  MELODY MEHRPOUR	<b>Art Unit</b>  2617

SEARCHED			
Class	Subclass	Date	Examiner
455	414.1, 417-419, 403, 407-409, 461, 571, 450, 452.2, 509, 67.11, 411, 67.13,	9/26/2012	NM
370	452,2, 328, 230.1, 331, 260, 389, 254, 340, 336, 242, 408, 232, 392, 310, 520, 401	9/26/2012	NM
Updated		1/10/2013	NM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	9/26/2012	NM
EAST	1/10/2013	NM

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/615,274	09/13/2012	Raman K. Rao	IPHLNZ00504

40518  
LEVINE BAGADE HAN LLP  
2400 GENG ROAD, SUITE 120  
PALO ALTO, CA 94303

**CONFIRMATION NO. 2191**  
**POA ACCEPTANCE LETTER**



Date Mailed: 01/08/2013


**NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 12/28/2012.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/gbien-aime/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

<b>Application Number</b> 	<b>Application/Control No.</b> 13/615,274	<b>Applicant(s)/Patent under Reexamination</b> RAO ET AL.	

<b>Document Code - DISQ</b>	<b>Internal Document – DO NOT MAIL</b>
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<b>TERMINAL DISCLAIMER</b>	<input checked="" type="checkbox"/> <b>APPROVED</b>	<input type="checkbox"/> <b>DISAPPROVED</b>
Date Filed : 12/28/12	<b>This patent is subject to a Terminal Disclaimer</b>	

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/615,274	09/13/2012	Raman K. Rao	HSR01

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Rekha Rao  
3087 Alexis Drive  
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**CONFIRMATION NO. 2191**  
**POWER OF ATTORNEY NOTICE**



OC00000058466417

Date Mailed: 01/08/2013

**NOTICE REGARDING CHANGE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 12/28/2012.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervenered as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/gbien-aime/

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)			<i>Complete if Known</i>		
			Application Number	13/615,274	
			Filing Date	September 13, 2012	
			First Named Inventor	Raman K. RAO	
			Art Unit	2641	
			Examiner Name	Naghmeh Mehrpour	
Sheet	1	of	2	Attorney Docket Number	IPHLNZ00504

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
	1.	4,465,401		08-14-1984	Stoddord et al.	
	2.	4,675,653		06-23-1987	Priestly	
	3.	5,195,130		03-16-1993	Weiss et al.	
	4.	5,379,341		01-03-1995	Wan	
	5.	5,410,738		04-25-1995	Diepstraten et al.	
	6.	5,513,242		04-30-1996	Mukerjee et al.	
	7.	5,517,553		05-14-1996	Sato	
	8.	5,539,391		07-23-1996	Yuen	
	9.	5,555,258		09-10-1996	Snelling et al.	
	10.	5,559,794		09-24-1996	Willis et al.	
	11.	5,565,929		10-15-1996	Tanaka	
	12.	5,566,205		10-15-1996	Delfine	
	13.	5,577,118		11-19-1996	Sasaki et al.	
	14.	5,872,926		02-16-1999	Levac et al.	
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	16.	5,907,580		05-25-1999	Cummings	
	17.	5,934,858		08-10-1999	Christenson	
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	19.	6,035,212		03-07-2000	Rostoker et al.	
	20.	6,049,289		04-11-2000	Waggamon et al.	
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	24.	6,172,985		01-09-2001	Gilbert	
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	26.	6,186,630		02-13-2001	Miyashita	
	27.	6,363,249		03-26-2002	Nordeman et al.	
	28.	6,405,033		06-11-2002	Kennedy et al.	
	29.	6,421,429		07-16-2002	Merritt et al.	
	30.	6,480,587		11-12-2002	Rao et al.	
	31.	6,826,405		11-30-2004	Doviak et al.	
	32.	7,286,658		10-23-2007	Henderson	
	33.	7,929,950		04-19-2011	Rao et al.	
	34.	8,090,356		01-03-2012	Rao et al.	
	35.	2011/0165877		07-07-2011	Rao et al.	
	36.	D374,675		10-15-1996	Sakai et al.	

Examiner Signature		Date Considered	
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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)			<i>Complete if Known</i>		
			Application Number	13/615,274	
			Filing Date	September 13, 2012	
			First Named Inventor	Raman K. RAO	
			Art Unit	2641	
			Examiner Name	Naghmeh Mehrpour	
Sheet	2	of	2	Attorney Docket Number	IPHLNZ00504

FOREIGN PATENT DOCUMENTS							
Examiner Initials <sup>4</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
		Country Code <sup>3</sup>	Number <sup>2</sup> -Kind Code <sup>2</sup> (if known)				
	37.	WO	1992/003884	03-05-1992	Haber et al.		

<sup>4</sup>EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached

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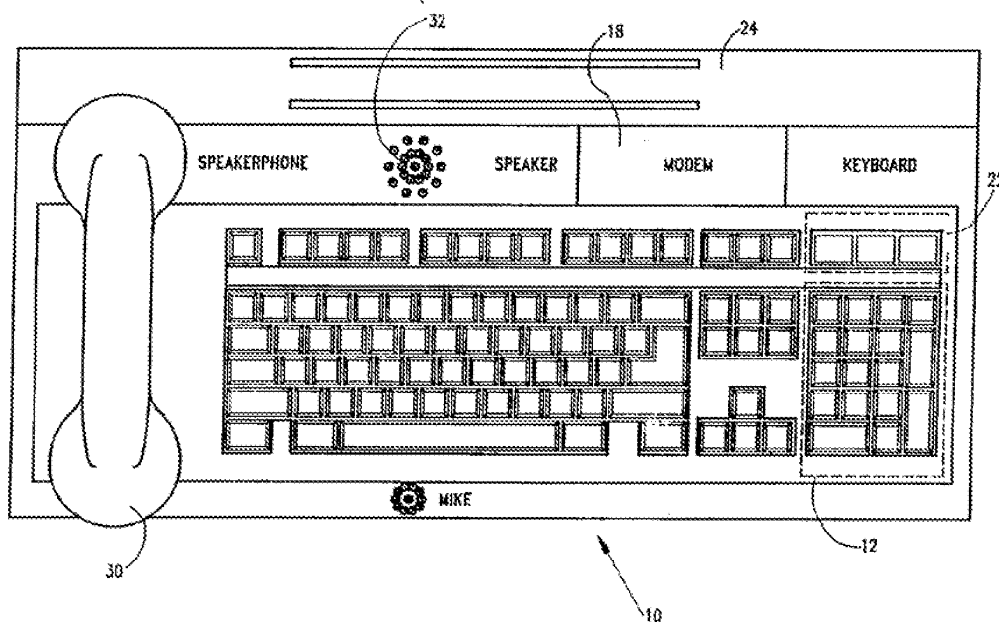




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>5</sup> : <b>H04M 11/00</b></p>	<p><b>AI</b></p>	<p>(11) International Publication Number: <b>WO 92/03884</b> (43) International Publication Date: 5 March 1992 (05.03.92)</p>
<p>(21) International Application Number: PCT/US91/05710 (22) International Filing Date: 12 August 1991 (12.08.91) (30) Priority data: 567,403 14 August 1990 (14.08.90) US (71)(72) Applicants and Inventors: HABER, Alan, P. [US/IL]; Mishol Uzrad 11/1, Ramot 02, 91 999 Jerusalem (IL). SASLOW, Roy, J. [US/IL]; 2 David Bazov Street, Ramot 03, 91 999 Jerusalem (IL). (74) Agents: LERCH, Joseph, B. et al.; Darby &amp; Darby, 805 Third Avenue, New York, NY 10022 (US).</p>		<p>(81) Designated States: AT (European patent), BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, LU (European patent), NL (European patent), SE (European patent).  <b>Published</b> <i>With international search report.</i> <i>With amended claims.</i></p>

(54) Title: A COMPUTER KEYBOARD



(57) Abstract

A computer keyboard is disclosed which includes an alphanumeric keypad (10), a numeric keypad (12) and at least one of the following: a document scanner (24), a speakerphone (32), and a modem (18). The numeric keypad (12) is operative for the speakerphone (32) and the keyboard.

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+ Any designation of "SU" has effect in the Russian Federation. It is not yet known whether any such designation has effect in other States of the former Soviet Union.

5

10

A COMPUTER KEYBOARDField of the Invention

The present invention relates to computer key-  
boards generally.

Background of the Invention

Various types of keyboards are known in the patent  
literature. The following U.S. patents represent a sampling  
of the art:

4,878,242; 4,918,723; 4,533,791; 4,759,053;  
4,736,407; 4,839,919; 4,829,559; 4,860,342; 4,503,288;  
4,873,715; 4,850,008; 4,827,085; 4,864,601.

25 Summary of the Invention

The present invention seeks to provide a general  
purpose computer keyboard which is operative to provide, in  
a single unit, multiple synergistic functions, which are not  
presently provided in an integrated keyboard.

30 There is thus provided in accordance with a pre-  
ferred embodiment of the invention a computer keyboard  
including an alphanumeric keypad, a numeric keypad and at  
least one of the following: a document scanner, a speaker-  
phone and a modem.

35 In accordance with a preferred embodiment of the  
invention there is provided a computer keyboard including an  
alphanumeric keypad, a numeric keypad and a document scan-  
ner.

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In accordance with another preferred embodiment of the invention there is provided a computer keyboard including an alphanumeric keypad, a numeric keypad and a speakerphone.

5 In accordance with yet another preferred embodiment of the invention there is provided a computer keyboard including an alphanumeric keypad, a numeric keypad and a modem.

10 More preferably, the keyboard includes at least two of the following: document scanner, speakerphone and modem.

Most preferably, the keyboard includes a document scanner, speakerphone and modem.

15 Finally, preferably, the numeric keypad is operative for the speakerphone and the keyboard together.

#### Brief Description of the Drawings

The present invention will be understood and appreciated more fully from the following detailed description, taken in conjunction with the drawings in which:

Figure 1 is a generalized pictorial illustration of a keyboard constructed and operative in accordance with a preferred embodiment of the present invention;

25 Figure 2 is a generalized block diagram illustration of the keyboard of Fig. 1;

Figure 3 is an electronic block diagram illustration of a keyboard;

30 Figures 4A and 4B are electronic block diagrams of portions of a speakerphone circuit useful in the keyboard of Fig. 1;

Figure 5 is an electronic block diagram illustration of a modem circuit useful in the keyboard of Fig. 1;

35 Figure 6 is an electronic block diagram illustration of a scanner circuit useful in the keyboard of Fig. 1; and

Figures 7A and 7B are generalized block diagrams of the keyboard of Fig. 1 with two alternate numeric keypad control circuits.

Detailed Description of a Preferred Embodiment

Reference is now made to Figs. 1 and 2, which illustrate a keyboard constructed and operative in accordance with a preferred embodiment of the present invention.

5 The keyboard comprises an alphanumeric keypad 10, which may be identical to that used in conventional personal computers manufactured by IBM and others.

The keyboard of the present invention also preferably comprises a numeric keypad 12, typically arranged in  
10 the form of a computer numeric keyboard rather than in the form of a DTMF telephone keypad.

The alphanumeric keypad 10 is associated with a keyboard circuit 14, which may be a conventional keyboard circuit employed in commercially available IBM PC keyboards.  
15 The keyboard circuit 14 may be coupled via a connector cable to the keyboard plug socket of a computer, such as a personal computer.

The numeric keypad is coupled via a control circuit 16 to keyboard circuit 14, modem 18 and speakerphone  
20 20. Control circuit 16 is operated by means of a control keypad 22. Control keypad 22 typically comprises three keys on the keyboard. For example, they may be a keyboard/dialpad mode switch 42, a scanner on/off switch 41 and a speakerphone on/off switch 43.

25 The modem 18 is coupled via serial line, such as an RS 232 line, to a computer. A document scanner 24, such as a MD122 or a CCD 142DB of Fairchild Semiconductor of West Germany, may also be coupled via a serial line to the computer. Scanner 24 is also typically connected to control  
30 circuit 16 and is operable as an input device for the computer. The speakerphone 20 typically comprises a handset 30 and a loudspeaker 32 and is coupled to a telephone line, as is modem 18.

Reference is now made to Fig. 3 which illustrates  
35 the keyboard circuit 14 which is the circuitry of the TH-5539AT, RT.XT keyboard manufactured by Chickory of Taiwan utilizing the 8748 keyboard CPU manufactured by Intel of the USA. The full specification of all of the circuit compo-

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nents appears in the drawing and therefore, for reasons of conciseness, a verbatim description thereof is not provided here. However, it will be noted that switches 36 of a numeric keypad 98 have been marked, as has a keyboard CPU  
5 38.

Reference is now made to figs. 4A and 4B which illustrate circuitry of speakerphone 20. Figure 4A is the speakerphone specification published by Motorola Semiconductors of the USA as Data Spec Sheets MC34014 and MC34018.  
10 Figure 4B is the speakerphone specification published by Motorola Semiconductors of the USA as Data Spec Sheet MC34118. The full specification of all of the circuit components appears in the drawings and therefore, for reasons of conciseness, a verbatim description thereof is not  
15 provided here. However, it will be noted that a second numeric keypad 100 is marked.

Reference is now made to Fig. 5 which illustrates the circuitry for modem 18. Figure 5 is taken from the Motorola Semiconductors Data Spec Sheet MC6860. The full  
20 specification of all of the circuit components appears in the drawing and therefore, for reasons of conciseness, a verbatim description thereof is not provided here. Reference is now made to Fig. 6 which is an illustration of circuitry for scanner 24. Figure 6 is taken from the Fair-  
25 child Charge Coupled Device Catalogue, 1984, Page 80. The full specification of all of the circuit components appears in the drawing and therefore, for reasons of conciseness, a verbatim description thereof is not provided here.

Reference is now made to Figs. 7A and 7B which  
30 illustrate two embodiments of control circuit 16 in conjunction with keyboard circuit 14 and speakerphone 20. As shown in Fig. 1, in accordance with the present invention, there is only one numeric keypad 12. The first and second numeric keypads 98 and 100 of Figs. 3 and 4B, respectively, are  
35 typically embodied in a single numeric keypad 12 comprising switches 36 (Figs. 3). For the embodiment of Fig. 7A, the switches 36 are double pole switches directly connected to both keyboard CPU 38 (shown also in Fig. 3) and a telephone

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dialer 40 (shown also in Fig. 4B). Keyboard CPU 38 and telephone dialer 40 are also connected to keyboard/dialpad mode switch 42 forming part of control keypad 22.

When switch 42 is in a first keyboard mode, it enables keyboard CPU 38 and disables telephone dialer 40, thereby enabling numeric and alphabetic input to the computer. When switch 42 is in a second dialpad mode, it disables the keyboard CPU 38 and enables telephone dialer 40, thereby enabling the numeric keypad 12 of the present invention to be utilized as a telephone keypad.

In accordance with an alternate embodiment of the present invention and as shown in Fig. 7B, switch 42 is connected to keypad CPU 38 and to telephone dialer 40. As in the previous embodiment, when switch 42 is in the first mode, the keyboard is enabled and the telephone dialer 40 is disabled. The keyboard data is sent, via a serial data line, to a computer (not shown). However, in this embodiment, when the telephone dialer 40 is enabled, the keyboard CPU 38 remains enabled and receives the data from numeric keypad 12. The serial data line is switched, via switch 47 which is operated by switch 42, to send data to the now enabled telephone dialer 40. In this embodiment, telephone dialer 40 is modified, in a manner known to one skilled in the art, to receive keyboard signals and to encode them to DTMF signals for the speakerphone 20.

In accordance with the present invention, as shown in both Figs. 7A and 7B, when the numeric keypad 12 is utilized as a telephone keypad, the keys +, -, Enter and \*, are redefined to perform the redial, auto, memory and flash features of a speakerphone 20, respectively.

It will be appreciated that the entirety of keys of both the alphanumeric and numeric keypads 10 and 12, respectively, can be utilized for advanced telephone features, as required. For the embodiment of Fig. 7A, the entirety of keys of keypads 10 and 12 can be implemented as double pole switches. For the embodiment of Fig. 7B, the entirety of keyboard data can be sent to the telephone dialer 40.

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It will be appreciated by persons skilled in the art that the present invention is not limited to what has been particularly shown and described hereinabove. Rather the scope of the present invention is defined only by the  
5 claims which follow:

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What Is Claimed Is:

- 1           1.    A computer keyboard comprising an alphanumer-  
2 ic keypad, a numeric keypad and at least one of the follow-  
3 ing: a document scanner, a speakerphone, and a modem.
  
- 1           2.    A computer keyboard comprising an alphanumer-  
2 ic keypad, a numeric keypad and a document scanner.
  
- 1           3.    A computer keyboard comprising an alphanumer-  
2 ic keypad, a numeric keypad and a speakerphone.
  
- 1           4.    A computer keyboard comprising an alphanumer-  
2 ic keypad, a numeric keypad and a modem.
  
- 1           5.    A computer keyboard comprising at least two  
2 of the following: document scanner, speakerphone and modem.
  
- 1           6.    A computer keyboard comprising a document  
2 scanner, speakerphone and modem.
  
- 1           7.    A computer keyboard according to Claim 1 and  
2 wherein said numeric keypad is operative for said speaker-  
3 phone.

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## AMENDED CLAIMS

[received by the International Bureau on 7 December 1991 (07.12.91);  
original claims 1-7 replaced by amended claims 1-20 (4 pages)]

1. A computer keyboard for connection to a separate personal computer having a personal computer housing and comprising a keyboard housing separate from the personal computer housing and an alphanumeric keypad, a numeric keypad, connector cable means for connection only to the keyboard plug socket of the personal computer and at least one of the following: a document scanner, a speakerphone, and a modem disposed in the keyboard housing.

2. A computer keyboard for connection to a personal computer and comprising a keyboard housing separate from the personal computer and disposed therewithin an alphanumeric keypad, a numeric keypad and a document scanner and a connector cable arranged for connection to the keyboard plug socket of a personal computer.

3. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising an alphanumeric keypad, a numeric keypad, a speakerphone and a connector cable arranged for connection to the keyboard plug socket of a personal computer.

4. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising a keyboard housing separate from the personal computer, an alphanumeric keypad, a numeric keypad, and a modem and a connector cable arranged for connection to the keyboard plug socket of a personal computer.

5. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising a keyboard

9.

housing separate from the computer and at least two of the following: document scanner, speakerphone and modem and a connector cable arranged for connection to the keyboard plug socket of a personal computer.

6. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising a keyboard housing separate from the computer, a document scanner, speakerphone and modem disposed within said keyboard housing.

8. A computer keyboard for connection to a separate personal computer having a personal computer housing and comprising a keyboard housing separate from the personal computer housing, an alphanumeric keypad and a numeric keypad arranged for connection to the keyboard plug socket of the personal computer and at least one of the following: a document scanner, a speakerphone, and a modem disposed in the keyboard housing.

9. A computer keyboard for connection to a personal computer and comprising an alphanumeric keypad and a numeric keypad arranged for connection to the keyboard plug socket of a personal computer and a document scanner, all being disposed in a keyboard housing separate from the personal computer.

10. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising alphanumeric and numeric keypad means for controlling the operation of the personal computer via said keyboard plug socket and a speakerphone disposed in a keyboard housing separate from the personal computer.

11. A computer keyboard for connection to a personal computer having a keyboard plug socket and comprising alphanumeric and numeric keypad means for controlling the operation of said personal computer via said keyboard plug socket and a modem, all disposed in a keyboard housing separate from the personal computer.

12. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising a keyboard housing separate from the computer, alphanumeric and numeric keypad means for controlling the operation of said personal computer via said keyboard plug socket and at least two of the following: document scanner, speakerphone and modem disposed in a keyboard housing separate from the personal computer.

13. A computer keyboard for connection to the keyboard plug socket of a personal computer and comprising a keyboard housing separate from the computer, alphanumeric and numeric keypad means for controlling the operation of said personal computer via said keyboard plug socket, a document scanner, speakerphone and modem disposed within said keyboard housing.

14. A computer keyboard according to claim 1 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

15. A computer keyboard according to claim 2 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

11

16. A computer keyboard according to claim 3 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

17. A computer keyboard according to claim 4 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

18. A computer keyboard according to claim 8 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

19. A computer keyboard according to claim 9 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

20. A computer keyboard according to claim 10 and wherein said numeric keyboard is arranged in the form of a computer numeric keyboard rather than in the form of a DTMF telephone keyboard.

## STATEMENT UNDER ARTICLE 19

In view of the International Search Report of 29 October 1991 in the above-identified PCT application, please amend said application by substituting the attached pages 7 to 10 containing new claims 1 through 20 for original page 7 containing prior claims 1 through 7. The Examiner had cited a Holmes article, British Telecommunications, Vol. 5, January 1987, p. 273-275; a Cutler article from the Conference, Electrical Text Communication, Munich, Germany, 12-15 June 1978, pp. 323-329; a Durkin article from British Telecommunications Engineering, Vol. 5, January 1987, pp. 276-280; and Iggulden et al. U.S. patent 4,918,723 as of particular relevance to the priorily presented claims.

Also attached is a new page 11 containing a revised Abstract in view of the Invitation of 29 October 1991 to comment on the Abstract attached to that Invitation. As noted in this revised Abstract the reference number for the speakerphone has been changed to 32 to conform to page 30, lines 31-33 and to Fig. 2 of the application.

The claims have been rewritten more clearly to set forth the patentable distinctions of the invention over the prior art and specifically with reference to the art cited in the Search Report.

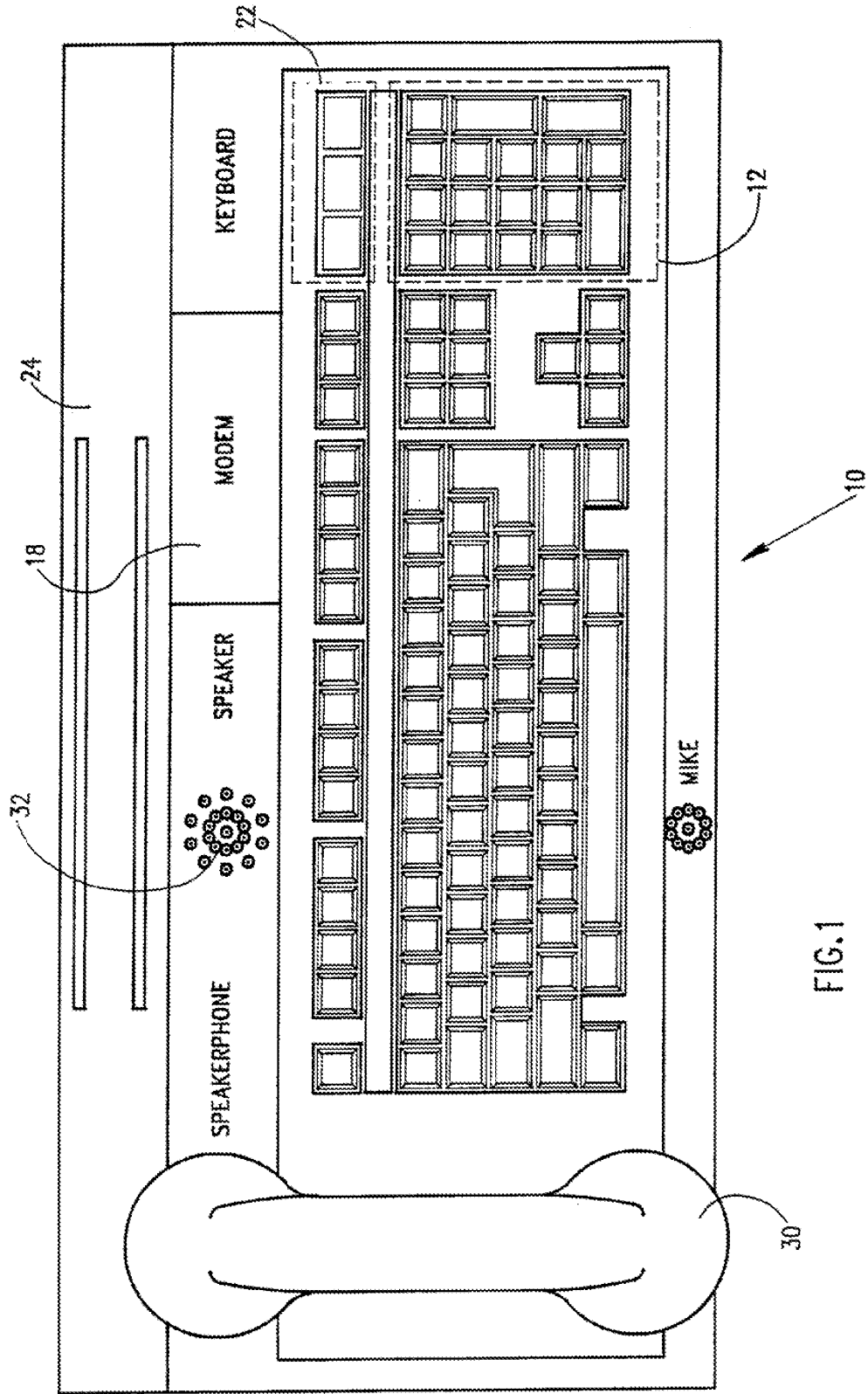


FIG. 1

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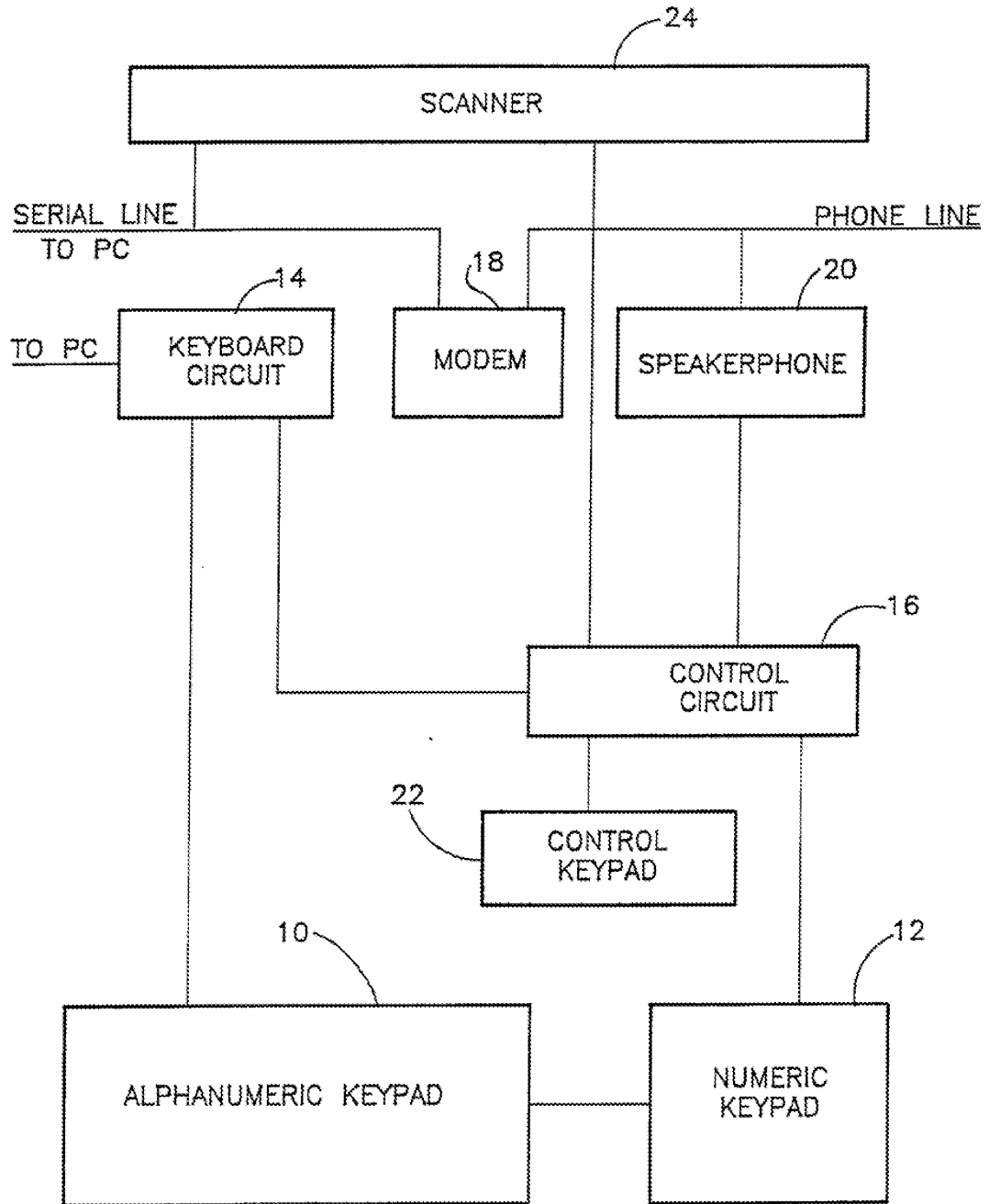


FIG.2

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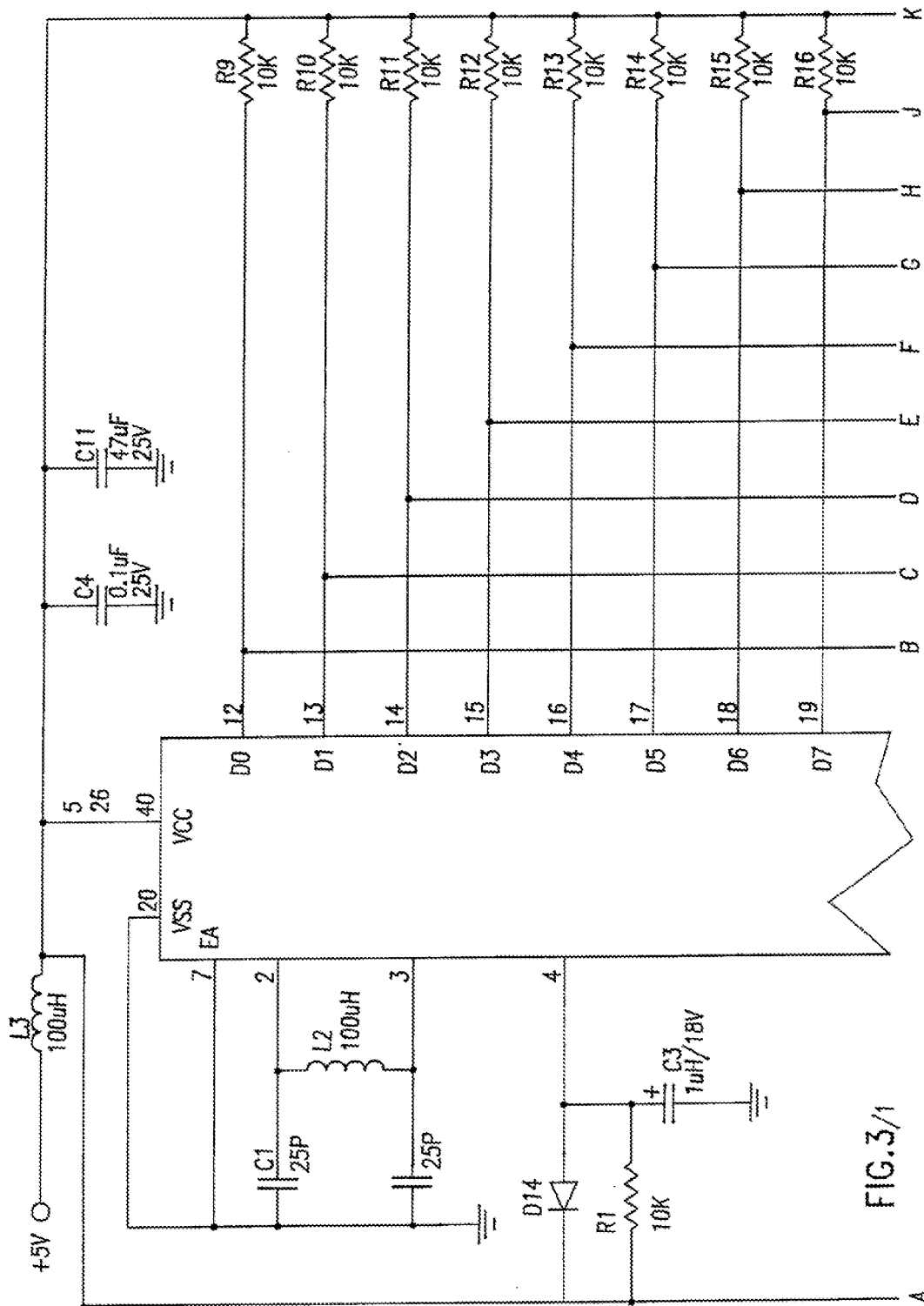


FIG.3/1

14 ↗

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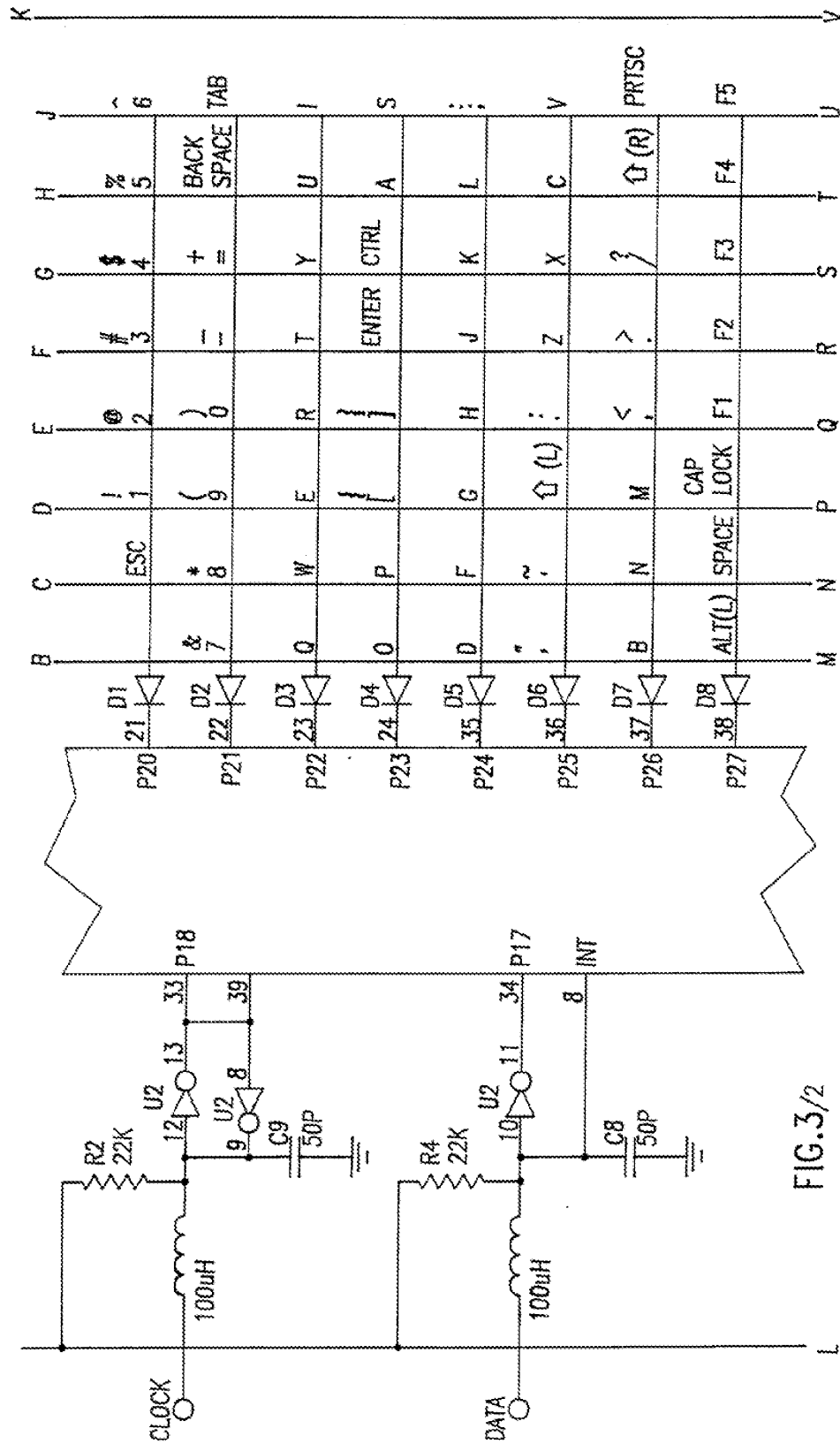


FIG.3/2

REPRODUCED FROM U.S. PATENT 5,000,000

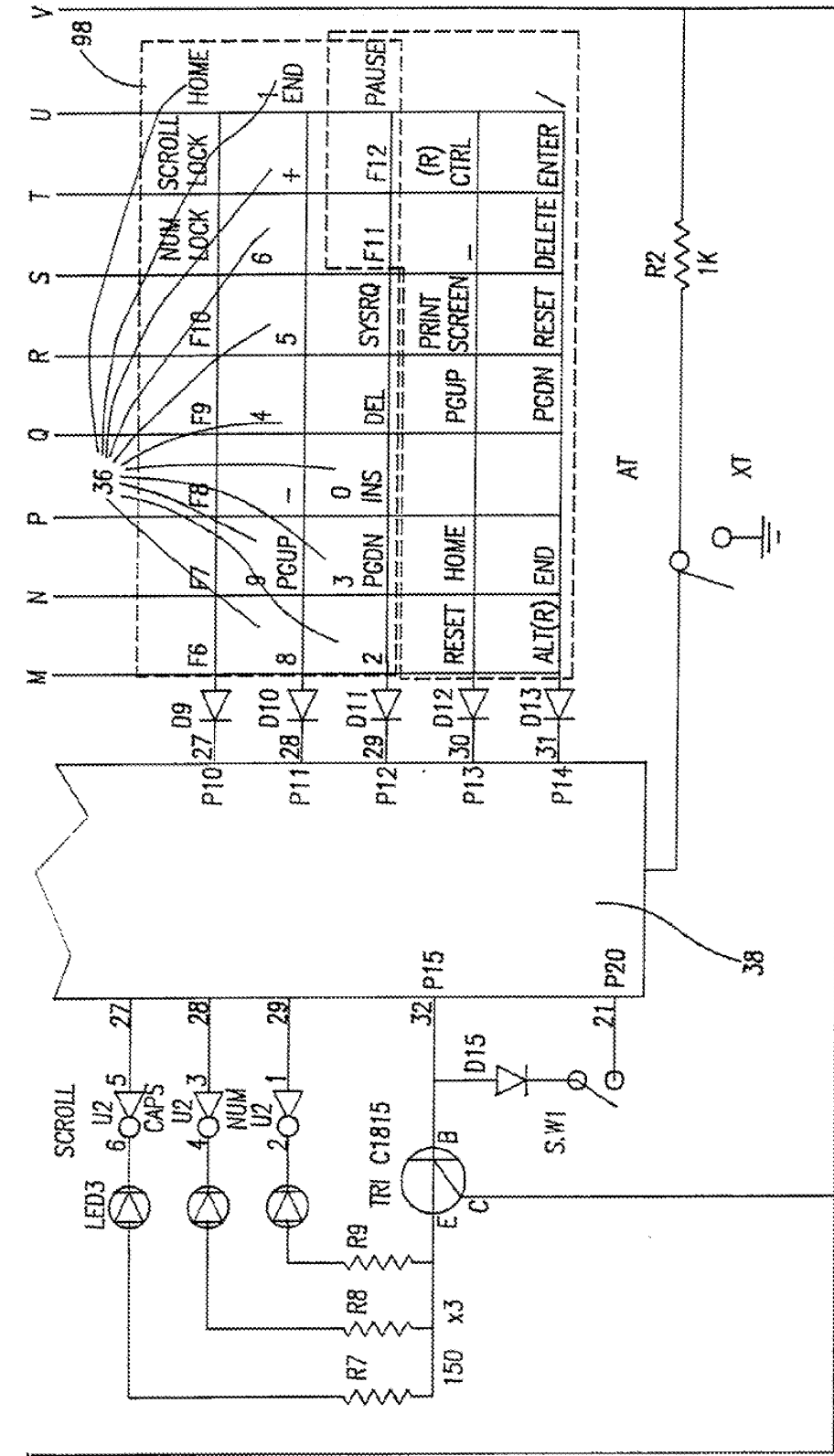
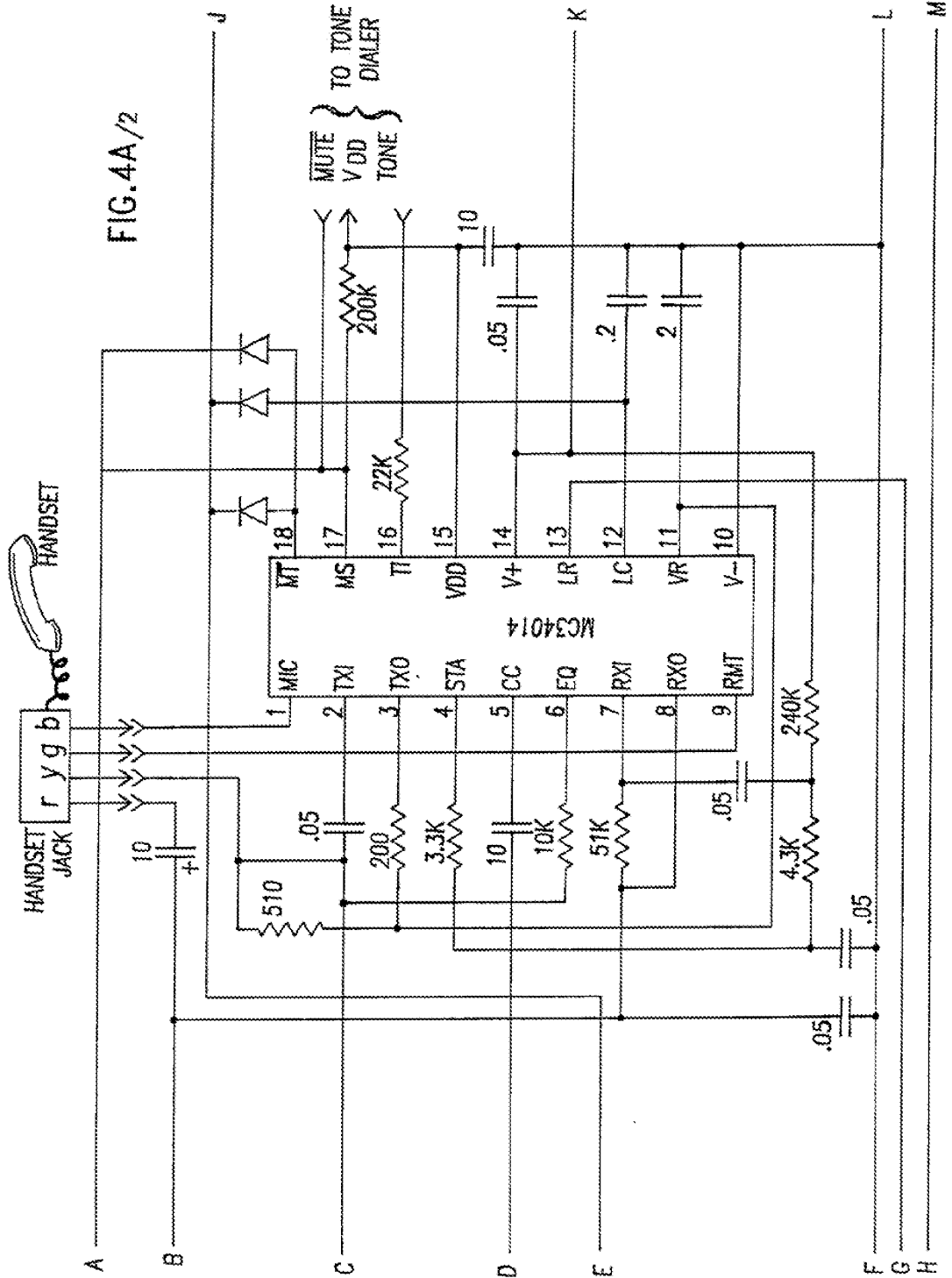


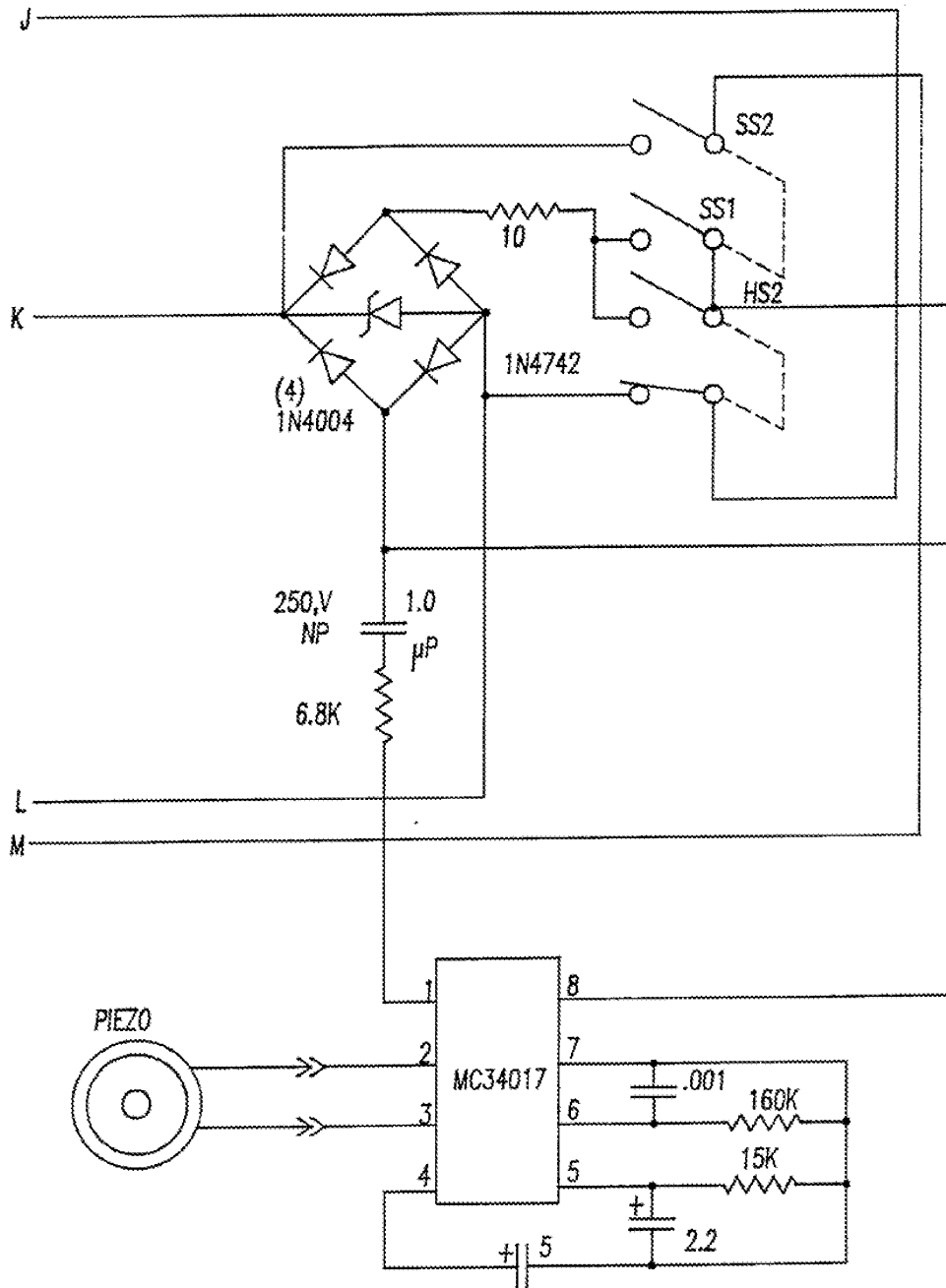
FIG.3/3

REPRODUCED FROM THE ORIGINAL





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DIODES: 1N4148 EXCEPT WHERE NOTED

FIG. 4A/3

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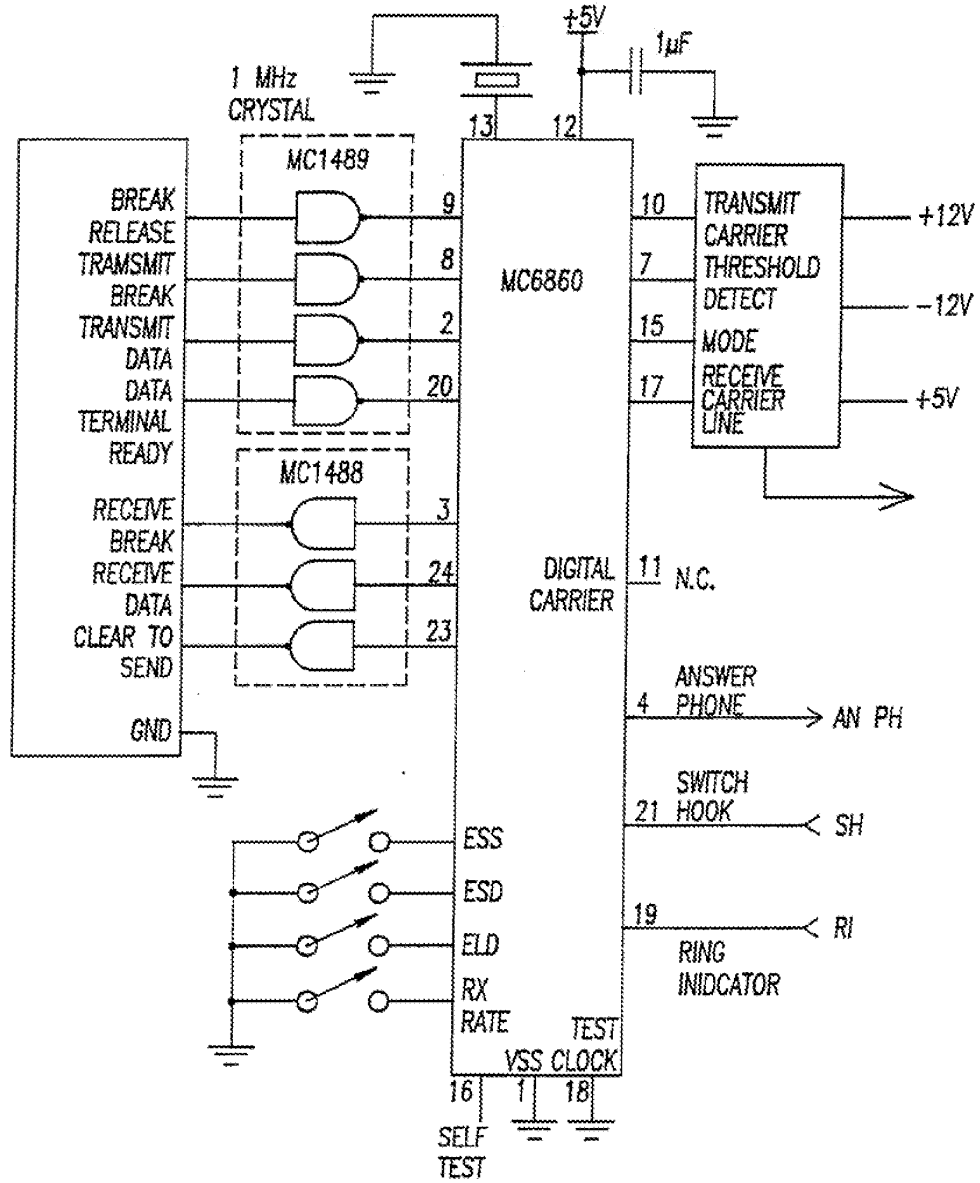


FIG.5/1

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11/16

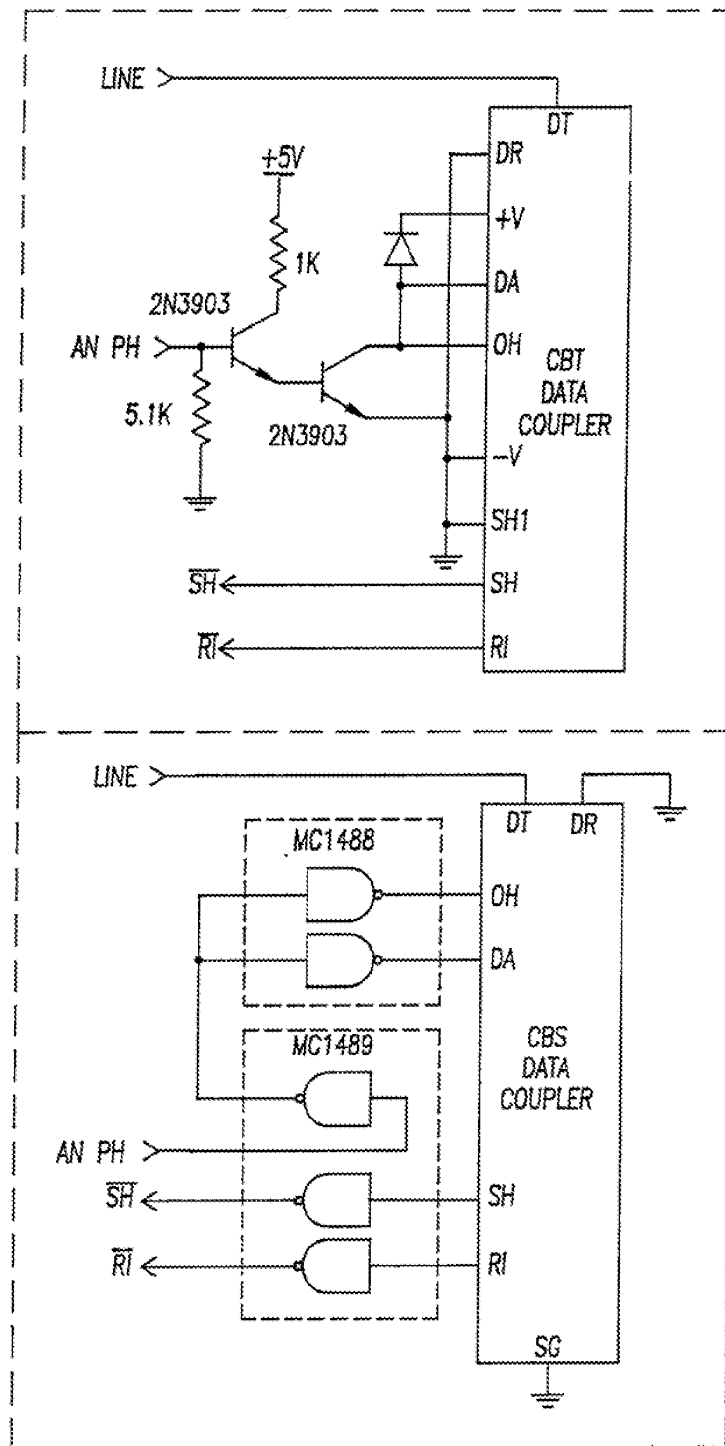


FIG.5/2

SUBSTITUTE SHEET

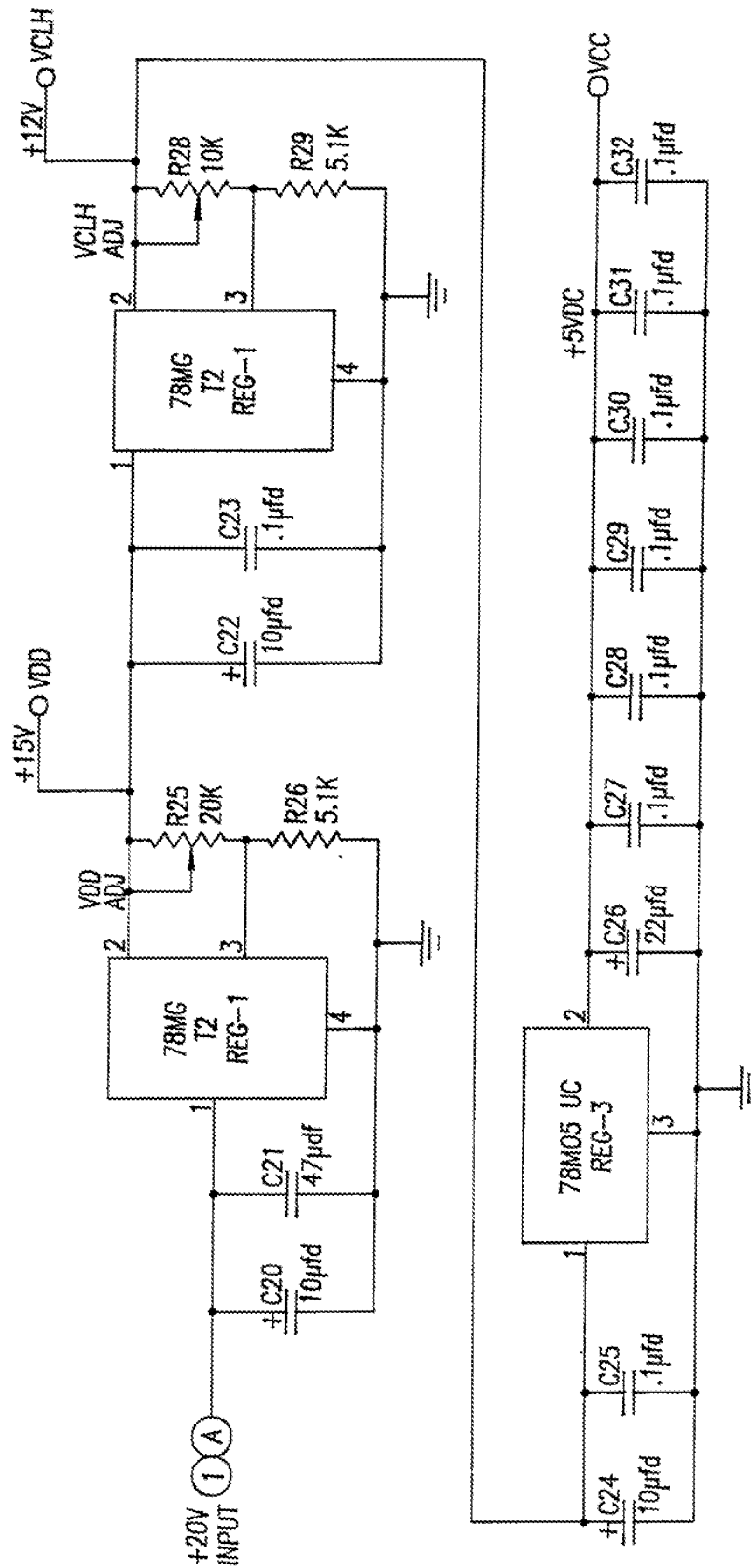


FIG. 6 / 1

SUBSTITUTE SHEET

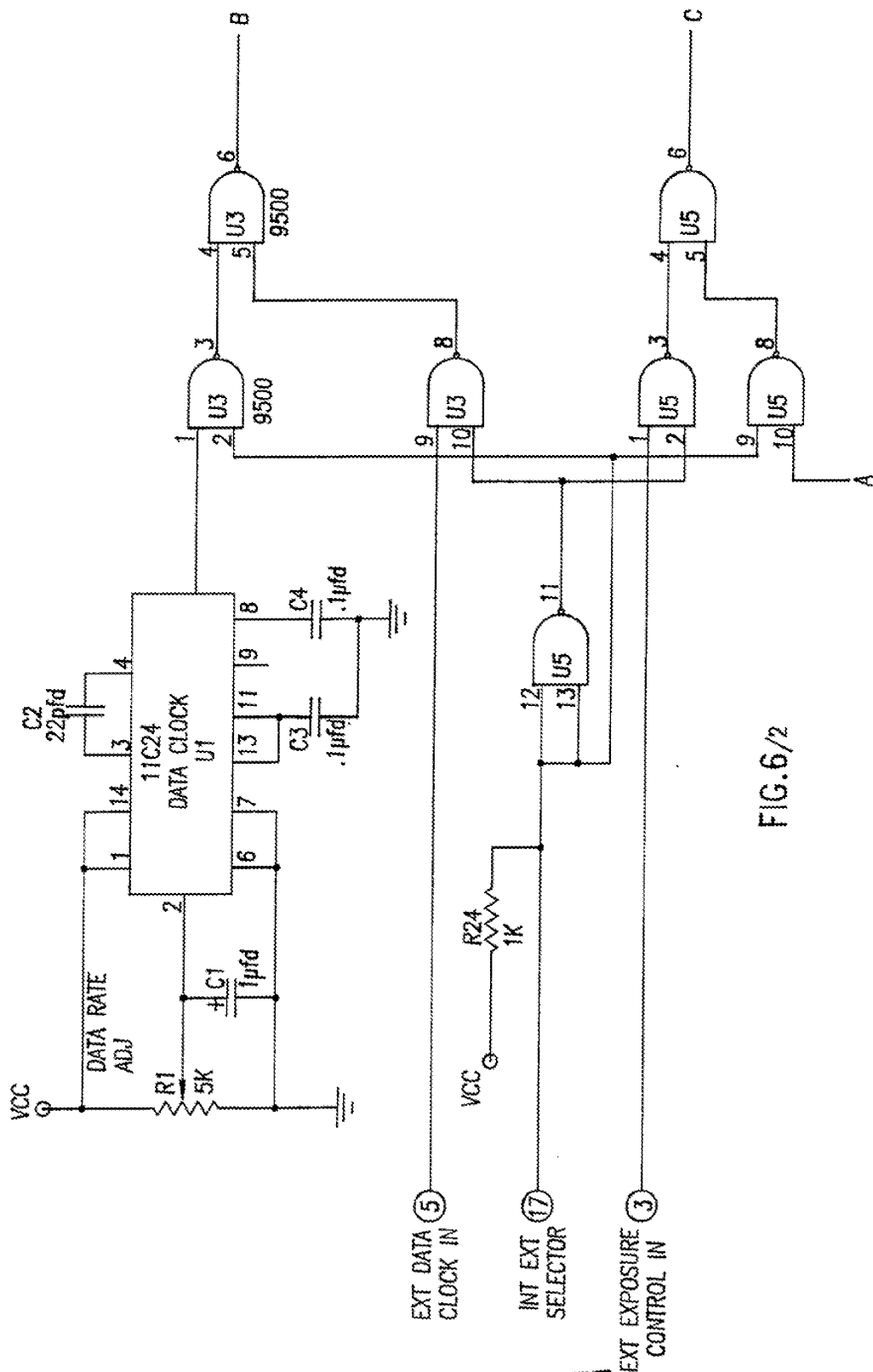


FIG.6/2

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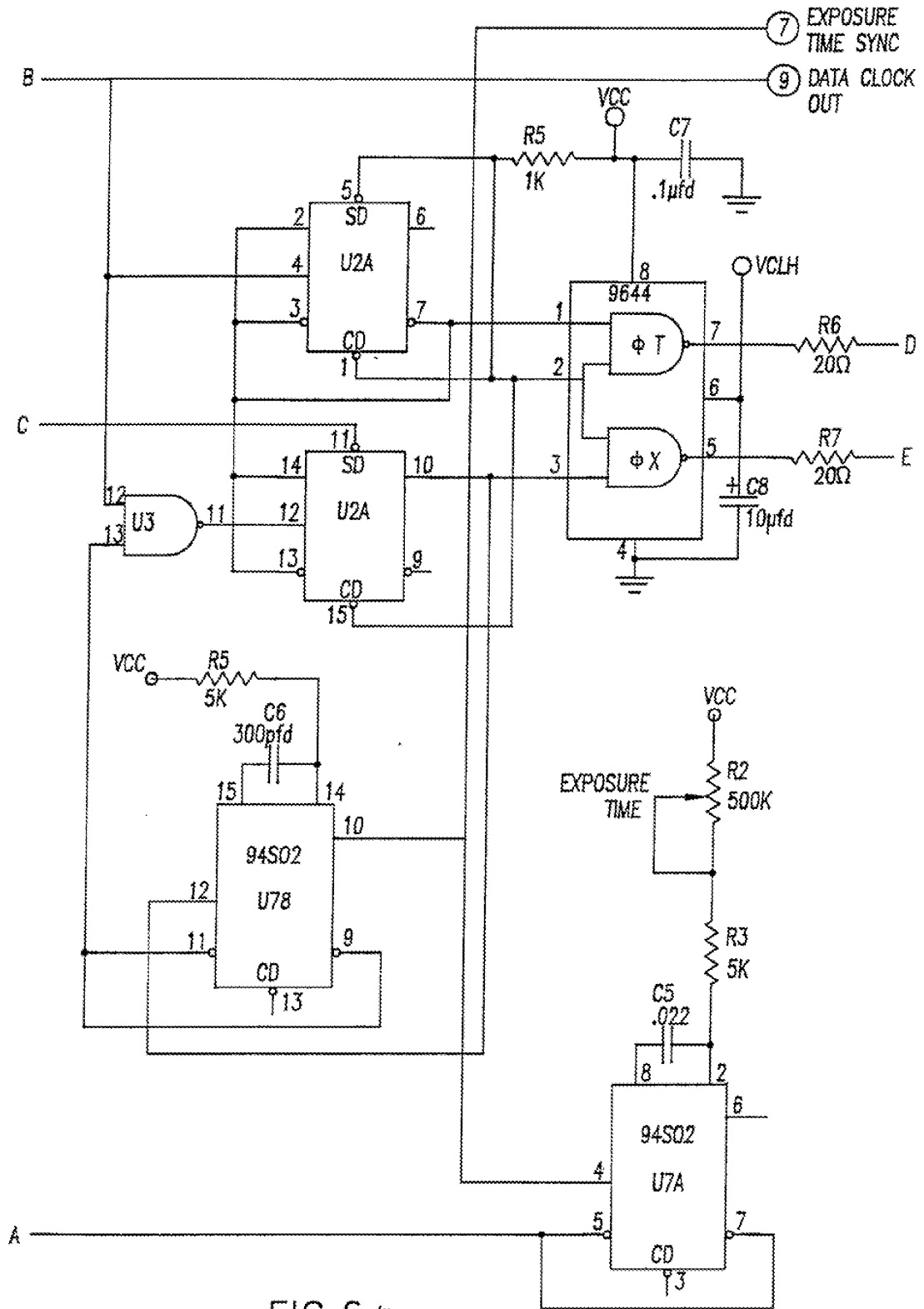


FIG. 6/3

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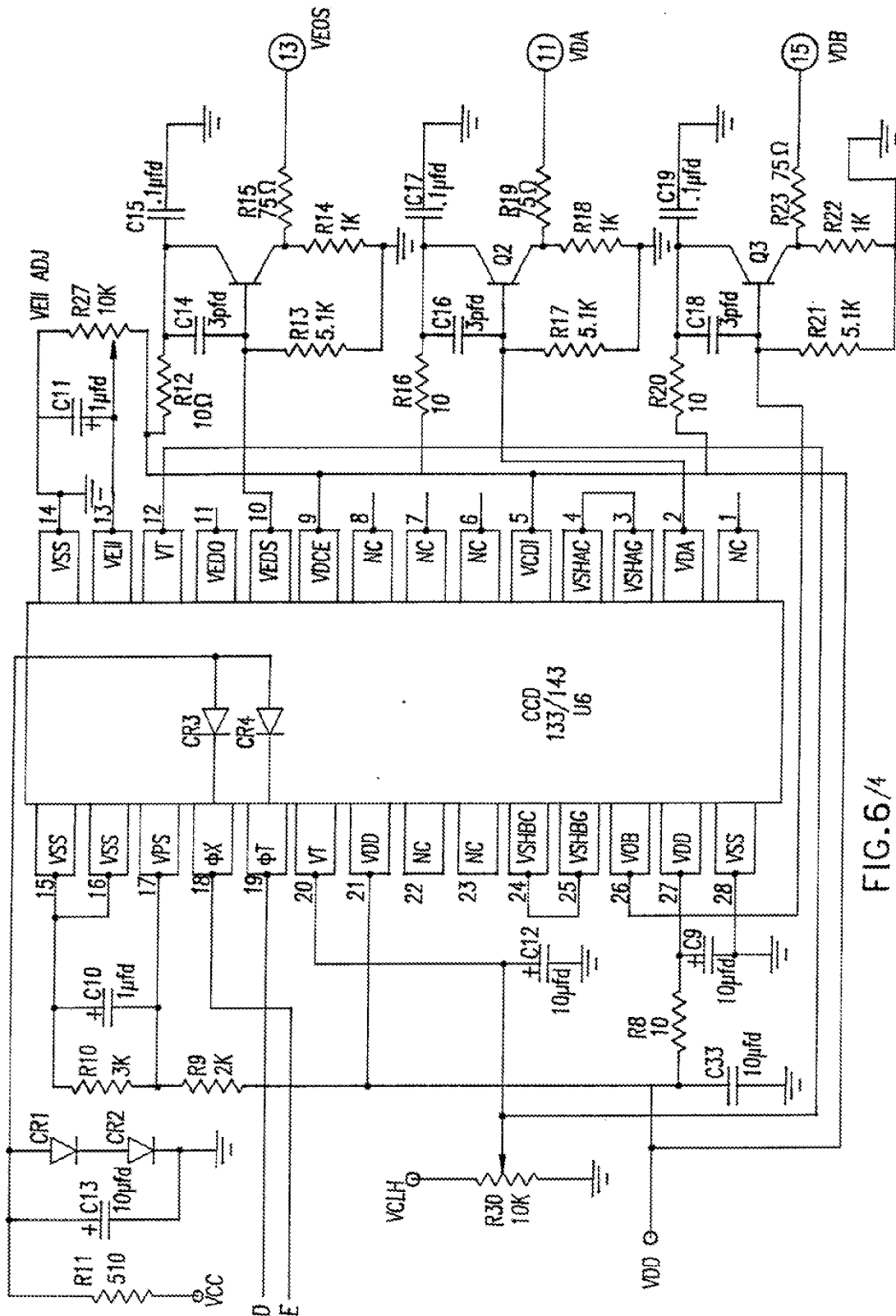
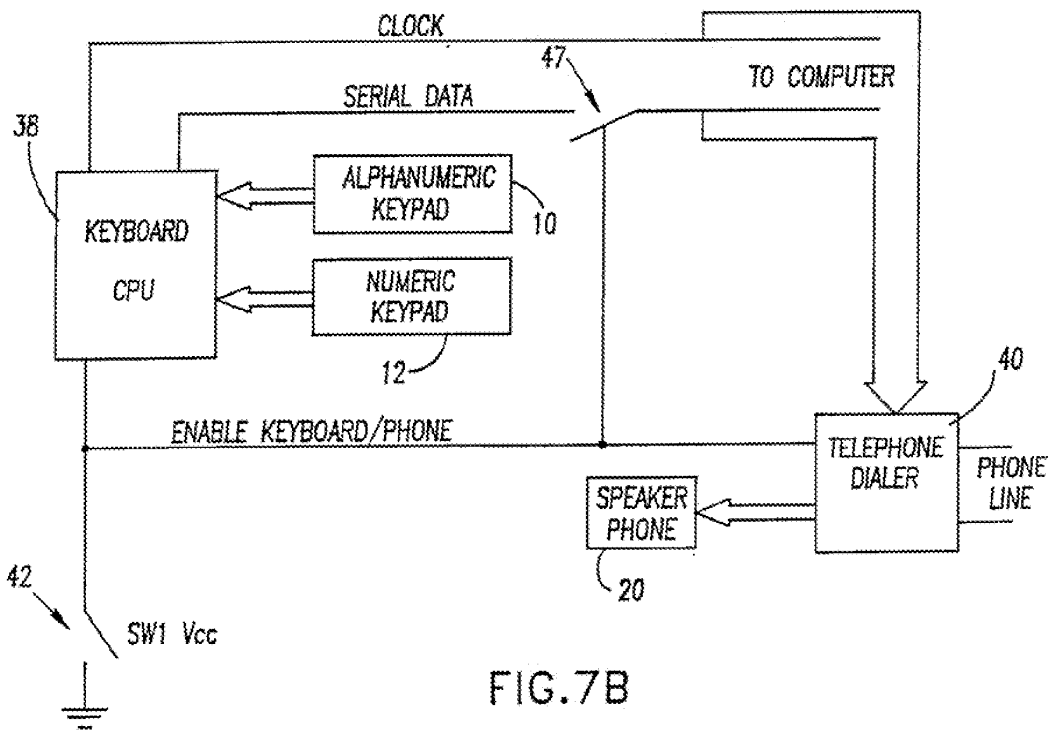
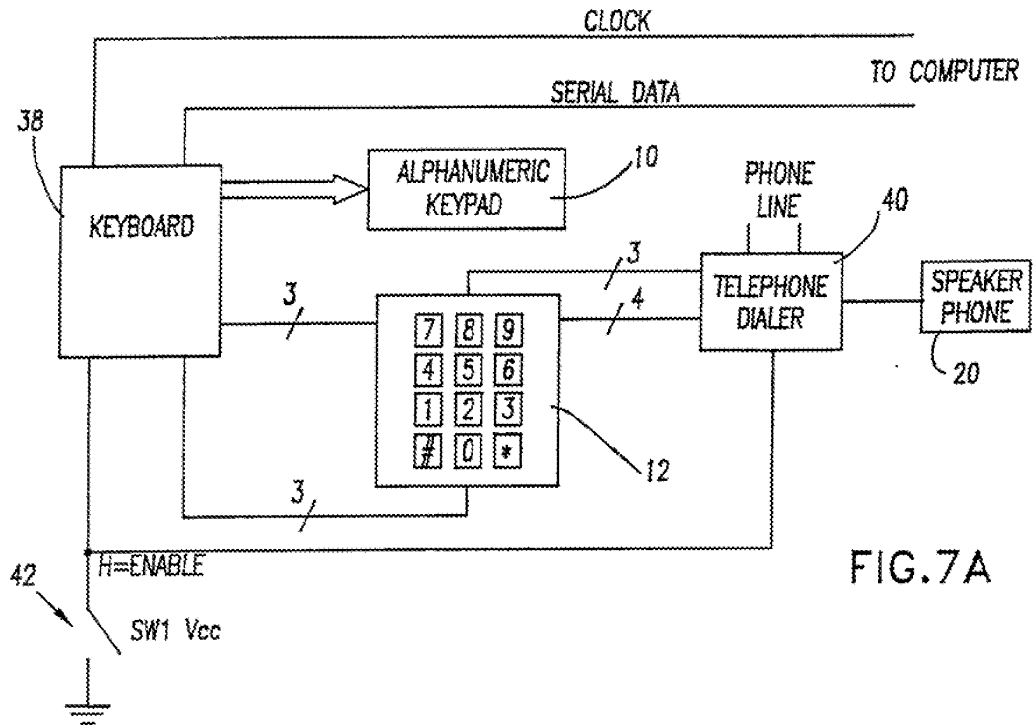


FIG. 6/4

SUBSTITUTE SHEET



SUBSTITUTE SHEET

# INTERNATIONAL SEARCH REPORT

International Application No. **PCT/US91/05710**

<b>I. CLASSIFICATION OF SUBJECT MATTER</b> (if several classification symbols apply, indicate all) *		
According to International Patent Classification (IPC) or to both National Classification and IPC		
IPC(5): H04M 11/00 US CL: 379/98,110; 341/22		
<b>II. FIELDS SEARCHED</b>		
Minimum Documentation Searched †		
Classification System	Classification Symbols	
US. CL.	379/90,96-98,100,110; 340/711,706; 341/22; 364/705.05,705.01,709.1	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ‡		
<b>III. DOCUMENTS CONSIDERED TO BE RELEVANT †</b>		
Category *	Citation of Document, †† with indication, where appropriate, of the relevant passages †‡	Relevant to Claim No. †‡
<u>X</u> Y	S. P. HOLMES, "MERLIN TONTO", BRITISH TELECOMMUNICATIONS VOL. 5, JANUARY 1987. PP. 273-275. (SEE ENTIRE ARTICLE)	1,4 1,2,3,5-7
<u>X</u> Y	C. C. CUTLER, "DISPLAYPHONE: AN INTERACTIVE GRAPHICAL COMMUNICATION EXPERIMENT", CONFERENCE: ELECTRIC TEXT COMMUNICATION, MUNICH, GERMANY, 12-15 JUNE 1978, PP. 323-329. (SEE ENTIRE ARTICLE)	1-6 7
<u>X</u> Y	G. M. DURKIN, "QWERTYPHONE-A LOW-COST INTEGRATED VOICE/DATA TERMINAL; BRITISH TELECOMMUNICATIONS ENGINEERING, VOL. 5, JANUARY 1987, PP. 276-280, (SEE ENTIRE ARTICLE)	1,3-5,7 2,6
Y	US, A, 4,918,723 (IGGULDEN ET AL.) 17 APRIL 1990 SEE FIGS 11,18, COLUMN 10, LINES 35-41	1,2,6
<p>* Special categories of cited documents: †‡</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"Z" document member of the same patent family</p>		
<b>IV. CERTIFICATION</b>		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
30 SEPTEMBER 1991	<b>29 OCT 1991</b>	
International Searching Authority	Signature of Authorized Officer	
ISA/US	<i>Wing Fu Chan</i> WING FU CHAN	

Form PCT/ISA/210 (second sheet) (Rev. 11-87)

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13615274				
<b>Filing Date:</b>	13-Sep-2012				
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Devices and Wireless Networks				
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao				
<b>Filer:</b>	Laura Lan Shires				
<b>Attorney Docket Number:</b>	IPHLNZ00504				
Filed as Small Entity					
<b>Utility under 35 USC 111(a) Filing Fees</b>					
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
<b>Basic Filing:</b>					
<b>Pages:</b>					
<b>Claims:</b>					
<b>Miscellaneous-Filing:</b>					
<b>Petition:</b>					
<b>Patent-Appeals-and-Interference:</b>					
<b>Post-Allowance-and-Post-Issuance:</b>					
<b>Extension-of-Time:</b>					



Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	14611693
<b>Application Number:</b>	13615274
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2191
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Devices and Wireless Networks
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao
<b>Customer Number:</b>	40518
<b>Filer:</b>	Laura Lan Shires
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	IPHLNZ00504
<b>Receipt Date:</b>	03-JAN-2013
<b>Filing Date:</b>	13-SEP-2012
<b>Time Stamp:</b>	18:35:00
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$180
RAM confirmation Number	8912
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Transmittal Letter	01_IPHLNZ00504_20130103_ids_cover_letter.pdf	351076 e12b40071044d0b636de55d8b4d84c1794b4ea27	no	3
<b>Warnings:</b>					
<b>Information:</b>					
2	Information Disclosure Statement (IDS) Form (SB08)	02_IPHLNZ00504_20130103_ids_sb08.pdf	276862 ac482bfb5b5929be02722920209ab1c16fe15eeb	no	2
<b>Warnings:</b>					
<b>Information:</b>					
This is not an USPTO supplied IDS fillable form					
3	Foreign Reference	03_WO9203884.pdf	4134744 a0fc40f3b5ba74546bd153e73ee27ab2a902002	no	31
<b>Warnings:</b>					
<b>Information:</b>					
4	Fee Worksheet (SB06)	fee-info.pdf	30314 381c1f8a583be6ff331f73ee97effcc1839586	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			4792996		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

I hereby certify that this correspondence is being electronically transmitted to the USPTO on the date shown below.

Date: January 3, 2013 Signature: ...../Laura L. Gallagher/..... (Laura L. Gallagher)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 13/615,274  
Confirmation No.: 2191  
Filing Date: September 13, 2012  
Inventor(s): Raman K. RAO et al.  
Title: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS  
Examiner: Naghmeh Mehrpour  
Group Art Unit: 2641

---

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.97 and §1.98, Applicants submit for consideration in the above-captioned application the documents listed on the attached Form PTO/SB/08a/b. A copy of the foreign document is submitted herewith. The Examiner is requested to make these documents of record.

Related Applications

Applicants wish to bring to the Examiner's attention, related applications and patents commonly assigned to the assignee of the present invention:

- U.S. Patent Application No. 08/764,903 filed December 16, 1996
- U.S. Patent Application No. 09/281,739 filed June 4, 1999
- U.S. Patent Application No. 09/591,381, filed June 9, 2000
- U.S. Patent Application No. 10/911,211 filed October 13, 2004
- U.S. Patent Application No. 13/047,718 filed March 14, 2011
- U.S. Patent Application No. 13/287,040 filed November 1, 2011
- U.S. Patent Application No. 13/615,365 filed September 13, 2012
- U.S. Patent Application No. 13/615,384 filed September 13, 2012
- U.S. Patent Application No. 13/615,478 filed September 13, 2012

This Information Disclosure Statement is submitted after receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance. The required fee is being concurrently submitted via EFS-Web.

Applicants would appreciate the Examiner initialing and returning the Form PTO/SB/08a/b, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. §1.97 and §1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the event the appropriate fee and/or petition is not filed herewith and the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with this filing to **Deposit Account No. 50-3973** referencing Attorney Docket No.

Application No.: 13/615,274

Attorney Docket No.: IPHLNZ00504

IPHLNZ00504. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

/Steven M. Giovannetti/

Steven M. Giovannetti  
Registration No. 51,739

**Customer No. 40518**  
Levine Bagade Han LLP  
2400 Geng Road, Suite 120  
Palo Alto, CA 94303  
Direct: (650) 646-2570  
Fax: (650) 284-2180

I hereby certify that this correspondence is being electronically transmitted to the USPTO on the date shown below.

Date: December 28, 2012..... Signature: ...../Laura L. Gallagher/..... (Laura L. Gallagher)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 13/615,274  
Confirmation No.: 2191  
Filing Date: September 13, 2012  
Inventor(s): Raman K. RAO et al.  
Title: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS  
Examiner: Naghmeh Mehrpour  
Group Art Unit: 2641

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**TERMINAL DISCLAIMER TO OBLVIATE A DOUBLE PATENTING REJECTION  
OVER "PRIOR" PATENTS AND PENDING "REFERENCE" APPLICATIONS,  
COMMON OWNERSHIP**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The owner, IP Holdings, Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior Patent No(s) 8,090,356 and 7,929,950 as the term of said prior patent is defined in 35 U.S.C. 154 and 173, and as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the prior patent, "as the term

of said prior patent is presently shortened by any terminal disclaimer,” in the event that said prior patent later: expires for failure to pay a maintenance fee; is held unenforceable; is found invalid by a court of competent jurisdiction; is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; has all claims canceled by a reexamination certificate; is reissued; or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Additionally, the owner, IP Holdings, Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Numbers 13/287,040 filed November 1, 2011, 13/615,365 filed September 13, 2012, and 13/615,478 filed September 13, 2012, as such term is defined in 35 U.S.C. 154 and 173, and as the term of any patent granted on said on reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of any patent granted on said reference application, “as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application,” in the event that: any such patent: granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.



I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. Filed herewith is the Terminal disclaimer fee under 37 CFR 1.20(d) and MPEP 804.02(IV).

In the event the appropriate fee and/or petition is not filed herewith and the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with this filing to **Deposit Account No. 50-3973** referencing Attorney Docket No. **IPHLNZ00504**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

/Steven M. Giovannetti/

Steven M. Giovannetti  
Registration No. 51,739

**Customer No. 40518**  
Levine Bagade Han LLP  
2400 Geng Road, Suite 120  
Palo Alto, CA 94303  
Direct: (650) 646-2570  
Fax: (650) 284-2180

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO**

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:



Practitioners associated with Customer Number:

40518

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:



The address associated with Customer Number:

40518

OR

<input type="checkbox"/>	Firm or Individual Name		
<input type="checkbox"/>	Address		
<input type="checkbox"/>	City		
<input type="checkbox"/>	Country		
<input type="checkbox"/>	Telephone		Email

Assignee Name and Address: JP Holdings, Inc.  
3087 Alexis Drive  
Palo Alto, CA 94304

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

**SIGNATURE of Assignee of Record**

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	<i>Rekha K. Rao</i>	Date	9/20/12
Name	Rekha K. Rao	Telephone	
Title	Chief Executive Officer		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(c)**

Applicant/Patent Owner: Raman K. RAO et al.  
Application No./Patent No.: 13/615,274 Filed/Issue Date: September 13, 2012  
Titled: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICES AND WIRELESS NETWORKS  
IP Holdings, Inc. a corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

- 1.  The assignee of the entire right, title, and interest.
- 2.  An assignee of less than the entire right, title, and interest (check applicable box):
  - The extent (by percentage) of its ownership interest is \_\_\_\_\_%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
  - There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

[Empty rectangular box for additional statement]

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

- 3.  The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

[Empty rectangular box for additional statement]

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

- 4.  The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 027157, Frame 0776, or for which a copy thereof is attached.

- B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**STATEMENT UNDER 37 CFR 3.73(c)**

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

4. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

5. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

6. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Steven M. Giovannetti/

December 28, 2012

Signature

Date

Steven M. Giovannetti

Attorney of Record

Printed or Typed Name

Title or Registration Number

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13615274				
<b>Filing Date:</b>	13-Sep-2012				
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Devices and Wireless Networks				
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao				
<b>Filer:</b>	Laura Lan Shires				
<b>Attorney Docket Number:</b>	HSR01				
Filed as Small Entity					
<b>Utility under 35 USC 111(a) Filing Fees</b>					
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>	
<b>Basic Filing:</b>					
<b>Pages:</b>					
<b>Claims:</b>					
<b>Miscellaneous-Filing:</b>					
<b>Petition:</b>					
<b>Patent-Appeals-and-Interference:</b>					
<b>Post-Allowance-and-Post-Issuance:</b>					
<b>Extension-of-Time:</b>					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Statutory or terminal disclaimer	2814	1	80	80
<b>Total in USD (\$)</b>				<b>80</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	14582927
<b>Application Number:</b>	13615274
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2191
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Devices and Wireless Networks
<b>First Named Inventor/Applicant Name:</b>	Raman K. Rao
<b>Customer Number:</b>	105481
<b>Filer:</b>	Laura Lan Shires
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	HSR01
<b>Receipt Date:</b>	28-DEC-2012
<b>Filing Date:</b>	13-SEP-2012
<b>Time Stamp:</b>	19:16:02
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$80
RAM confirmation Number	5799
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		01_IPHLNZ00504_20121228_response_to_non-final_office_action.pdf	906844 169eef978b7433c9e4ce3a767b20851fb4f19fc	yes	7
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Amendment/Req. Reconsideration-After Non-Final Reject	1	1	
		Claims	2	4	
		Applicant Arguments/Remarks Made in an Amendment	5	7	
<b>Warnings:</b>					
<b>Information:</b>					
2	Terminal Disclaimer Filed	02_IPHLNZ00504_20121228_terminal_disclaimer.pdf	571003 817d6855904f32368f31e427c0969cc84fafe4e3	no	3
<b>Warnings:</b>					
<b>Information:</b>					
3	Power of Attorney	03_IPHLNZ00504_20121228_power_of_attorney.pdf	212476 9bfc18f325d5abaa4643372f63276b43cd6e9c5a	no	1
<b>Warnings:</b>					
<b>Information:</b>					
4	Assignee showing of ownership per 37 CFR 3.73.	04_IPHLNZ00504_20121228_373c.pdf	418414 ae4645dda636fe0751b72ad58760ea233362d2f9	no	2
<b>Warnings:</b>					
<b>Information:</b>					
5	Fee Worksheet (SB06)	fee-info.pdf	30256 1111a0deba72a4241d4870059c10cc9328b097d6	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			2138993		



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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

I hereby certify that this correspondence is being electronically transmitted to the USPTO on the date shown below.

Date: December 28, 2012..... Signature: ...../Laura L. Gallagher/..... (Laura L. Gallagher)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 13/615,274  
Confirmation No.: 2191  
Filing Date: September 13, 2012  
Inventor(s): Raman K. RAO et al.  
Title: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS  
DEVICES AND WIRELESS NETWORKS  
Examiner: Naghmeh Mehrpour  
Group Art Unit: 2641

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**RESPONSE TO NON-FINAL OFFICE ACTION**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is in response to the non-final Office Action dated October 3, 2012 for which a response is due on January 3, 2013. Accordingly, this response is timely filed.

Reconsideration and allowance of the pending claims, as amended, in light of the Remarks presented herein are respectfully requested.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 5 of this paper.

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

**In the claims**

1. (Currently Amended): A wireless communication system, comprising:  
a wireless device which supports voice and data communications;  
a server; and  
a memory, wherein a processor is communicatively coupled with the memory,  
wherein the memory stores functional instructions including instructions for use in providing a plurality of functions to the wireless device, at least one of the functional instructions ~~adapted~~ provided for switching between one or more networks including at least one public network, and

wherein the memory further stores a plurality of communication protocols, that facilitate communication between the server and the wireless device, and wherein the server ~~controls~~ is configured to send to the wireless device a plurality of functions, wherein the wireless device is dynamically configurable ~~dynamic conversion of the wireless device from a first function to a second function to enable a plurality of functions at the wireless device and wherein the wireless device is configured for Internet access.~~

2. (Original): The system of claim 1, wherein the server is located at a carrier for the wireless device.

3. (Original): The system of claim 1, wherein the wireless device receives a functional instruction to access radio frequency waves, thereby acting as a radio.

4. (Original): The system of claim 1, wherein the wireless device receives a functional instruction to access TV waves, thereby acting as a TV.

5. (Original): The system of claim 1, wherein the wireless device receives a functional instruction to access TV waves, and the wireless device transmits the functional instruction to a TV.

6. (Original): The system of claim 1, wherein the wireless device receives a functional instruction to access cellular data waves, thereby acting as a cellular telephone.

7. (Original): The system of claim 1, wherein the wireless device receives a functional instruction from the server at a carrier to adapt to a different frequency and wireless protocol, thereby allowing the wireless device to switch between a first network and a second network dynamically.

8. (Original): The system of claim 1, wherein the wireless device includes any of a TV controller, garage controller, cordless phone, cellular device, mobile device, and other intelligent appliances.

9. (Original): The system of claim 1, wherein the wireless device is adapted to query a server for frequency to communicate with a separate device.

10. (Original): The system of claim 1, wherein the wireless device is adapted to work in conjunction with a wireless local area network and wherein the wireless device is coupled to the memory and the processor.

11. (Original): The system of claim 1, wherein the server is located on the Internet or at a carrier base station.

12. (Original): The system of claim 1, wherein the wireless device is adapted to be reconfigured by a carrier to use a different communication protocol through use of functional instructions transmitted over a carrier.

13. (Original): The system of claim 1, wherein the functional instructions include sets of functions instructions, and wherein a function instruction set is a set of commands that enables wireless device reconfiguration.

14. (Original): The system of claim 1, wherein the wireless device utilizes a first protocol and is adapted to be reconfigured by a public carrier such that the wireless devices utilizes a second protocol.

15. (Original): The system of claim 1, wherein the wireless device utilizes a local network box to identify the location of a user.

16. (Original): The system of claim 1, wherein the wireless device is adapted to be reconfigured by a public carrier based upon a GPS location of the wireless device.

17. (Original): The system of claim 1, wherein the wireless device is adapted to be reconfigured based upon its proximity to an access point or local or office network.

18. (Original): The system of claim 1, wherein the wireless device is adapted to recognize its proximity to various wireless networks and initiate a configuration based thereon.

19. (Original): The system of claim 1, wherein the wireless device is adapted to store one or more profiles on the server.

20. (Original): The system of claim 1, wherein a set of functional instructions is any set of commands that can reconfigure parameters of the wireless device.

**REMARKS**

Claims 1-20 were pending in the present application. By virtue of this response, claim 1 has been amended. Accordingly, claims 1-20 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. Support for the amendments can be found in the specification and claims as originally filed, e.g., at [0005]. No new matter has been added.

**Double Patenting**

**A.** Claim 1 is provisionally rejected under 35 USC 101 statutory type double patenting as claiming the same invention as that of claim 1 of co-pending U.S. Patent Application No. 13/615,365 and claim 1 of co-pending U.S. Patent Application No. 13/615,478.

In response, Applicants have amended claim 1 to overcome the statutory type double patenting rejection. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the rejection under statutory type double patenting.

**B.** Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of co-pending U.S. Patent Application No. 13/615,365, claims 34-66 of co-pending U.S. Patent Application No. 13/287,040, and claims 1-20 of co-pending U.S. Patent Application No. 13/615,478.

In response, Applicants have submitted Terminal Disclaimers in view of the above referenced patent applications. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the rejections under non-statutory obviousness-type double patenting.

**C.** Claims 1-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 8,090,356 and claim 1 of U.S. Patent No. 7,929,950.

In response, Applicants have submitted Terminal Disclaimers in view of the above referenced patents. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the rejections under non-statutory obviousness-type double patenting.

### CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections and pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the appropriate fee and/or petition is not filed herewith and the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with this filing to **Deposit Account No. 50-3973** referencing Attorney Docket No. **IPHLNZ00504**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

/Steven M. Giovannetti/

Steven M. Giovannetti  
Registration No. 51,739

**Customer No. 40518**  
Levine Bagade Han LLP  
2400 Geng Road, Suite 120  
Palo Alto, CA 94303  
Direct: (650) 646-2570  
Fax: (650) 284-2180



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>13/615,274</b>		Filing Date <b>09/13/2012</b>		<input type="checkbox"/> To be Mailed		
<b>APPLICATION AS FILED – PART I</b>											
(Column 1)			(Column 2)			SMALL ENTITY <input checked="" type="checkbox"/> OR		OTHER THAN SMALL ENTITY			
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>		N/A	N/A		N/A		OR		N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (i), or (m))</small>		N/A	N/A		N/A		OR		N/A		
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>		N/A	N/A		N/A		OR		N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(j))</small>		minus 20 =	*		X \$ =		OR		X \$ =		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>		minus 3 =	*		X \$ =		OR		X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>											
					TOTAL		OR		TOTAL		
* If the difference in column 1 is less than zero, enter "0" in column 2.											
<b>APPLICATION AS AMENDED – PART II</b>											
(Column 1)			(Column 2)		(Column 3)		SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	<b>12/28/2012</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 20	Minus	** 20	= 0	X \$31 =	0	OR		X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	* 1	Minus	***3	= 0	X \$125 =	0	OR		X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
					TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE		
					<b>0</b>		OR				
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	X \$ =		OR		X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	X \$ =		OR		X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
					TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE		
							OR				
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.											
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".											
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".											
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											
Legal Instrument Examiner: /DELEACHES YOUNG/											

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/615,274	09/13/2012	Raman K. Rao	HSR01	2191
105481	7590	10/03/2012	EXAMINER	
Rekha Rao 3087 Alexis Drive Palo Alto, CA 94304			MEHRPOUR, NAGHMEH	
			ART UNIT	PAPER NUMBER
			2641	
			MAIL DATE	DELIVERY MODE
			10/03/2012	PAPER

**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.

<b>Office Action Summary</b>	<b>Application No.</b> 13/615,274	<b>Applicant(s)</b> RAO ET AL.	
	<b>Examiner</b> MELODY MEHRPOUR	<b>Art Unit</b> 2617	

**-- 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 \_\_\_\_.
- 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) 1-20 is/are rejected.
- 8)  Claim(s) \_\_\_\_ is/are objected to.
- 9)  Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  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).
- 12)  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**

- 13)  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:
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) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Double Patenting*

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

1. Claim 1, is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1, of copending Application No. 13615365, and claim 1, of copending Application No. 13615478. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-20, are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No.13615365, claims 34-66 of copending Application No. 13287040, and claims 1-20 of copending Application No.13615478, Although the conflicting claims are not identical, they are not patentably distinct from each other because they all teach a wireless communication and control system including a wireless device. There is a central server for storing communication protocols and

control protocols and communicating the communication protocols and selectively communicating the control protocols between the wireless device and the central server. A communication protocol configures the system for communication and control protocols configure the system as one of a selection of intelligent appliance controllers. Alternately the control protocols configure the system as one of a selection of Internet terminals. The wireless device is any hand-held communication device, such as a hand-held computing device, wireless telephone, or cellular phone.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented

3. Claims 1-20, are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 8090356. Claim 1 of U.S. Patent No. 7,929,950. Although the conflicting claims are not identical, they are not patentably distinct from each other because they all teach a wireless communication and control system including a wireless device. There is a central server for storing communication protocols and control protocols and communicating the communication protocols and selectively communicating the control protocols between the wireless device and the central server. A communication protocol configures the system for communication and control protocols configure the system as one of a selection of intelligent appliance controllers. Alternately the control protocols configure the system as one of a selection of Internet terminals. The wireless device is any hand-held

communication device, such as a hand-held computing device, wireless telephone, or cellular phone.

### **Conclusion**

#### Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELODY MEHRPOUR whose telephone number is (571)272-7913. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, supervisor, C Appiah can be reached on 571-272-7904. 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.

/Naghmeh Mehrpour/

Primary Examiner, Art Unit 2617

September 26, 2012



<b>Notice of References Cited</b>	Application/Control No. 13/615,274	Applicant(s)/Patent Under Reexamination RAO ET AL.	
	Examiner MELODY MEHRPOUR	Art Unit 2617	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-5,517,553	05-1996	Sato, Hideaki	455/552.1
*	B US-5,513,242	04-1996	Mukerjee et al.	455/403
*	C US-5,934,858	08-1999	Christenson, Ronald E.	414/408
*	D US-2011/0038637	02-2011	Rao et al.	398/115
*	E US-7,929,950	04-2011	Rao et al.	455/414.1
*	F US-6,865,261	03-2005	Rao et al.	379/93.12
*	G US-6,480,587	11-2002	Rao et al.	379/110.01
*	H US-5,907,580	05-1999	Cummings, Mark R.	375/220
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			


**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

**NON-PATENT DOCUMENTS**

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
U	
V	
W	
X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Search Notes</b>  	<b>Application/Control No.</b>  13615274	<b>Applicant(s)/Patent Under Reexamination</b>  RAO ET AL.
	<b>Examiner</b>  MELODY MEHRPOUR	<b>Art Unit</b>  2617

SEARCHED			
Class	Subclass	Date	Examiner
455	414.1, 417-419, 403, 407-409, 461, 571, 450, 452.2, 509, 67.11, 411, 67.13,	9/26/2012	NM
370	452,2, 328, 230.1, 331, 260, 389, 254, 340, 336, 242, 408, 232, 392, 310, 520, 401	9/26/2012	NM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	9/26/2012	NM

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 7 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY DOCKET NO, TOT CLAIMS, IND CLAIMS. Row 1: 13/615,274, 09/13/2012, 2617, 530, HSR01, 20, 1

CONFIRMATION NO. 2191

FILING RECEIPT

105481
Rekha Rao
3087 Alexis Drive
Palo Alto, CA 94304



Date Mailed: 09/26/2012

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Inventor(s)

Raman K. Rao, Palo Alto, CA;
Sunil K. Rao, Palo Alto, CA;
Sanjay K. Rao, Palo Alto, CA;

Applicant(s)

Raman K. Rao, Palo Alto, CA;
Sunil K. Rao, Palo Alto, CA;
Sanjay K. Rao, Palo Alto, CA;

Assignment For Published Patent Application

IP HOLDINGS, INC., Palo Alto, CA

Power of Attorney:

Stephen Baldwin--27769
Laurence Shaw--34723
Marion Cavanaugh--40550

Domestic Priority data as claimed by applicant

This application is a CON of 13/287,040 11/01/2011
which is a CON of 13/047,718 03/14/2011 PAT 8090356
which is a CON of 09/591,381 06/09/2000 PAT 7929950
which is a CIP of 09/281,739 06/04/1999 PAT 6169789
which is a CIP of 08/764,903 12/16/1996 ABN

Foreign Applications (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see http://www.uspto.gov for more information.)

**If Required, Foreign Filing License Granted:** 09/25/2012

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/615,274**

**Projected Publication Date:** Request for Non-Publication Acknowledged

**Non-Publication Request:** Yes

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

Dynamically Configurable IP Based Wireless Devices and Wireless Networks

**Preliminary Class**

455

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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**Title 35, United States Code, Section 184**  
**Title 37, Code of Federal Regulations, 5.11 & 5.15**

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number 13/615,274
---	--

APPLICATION AS FILED - PART I			SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	(Column 1)	(Column 2)					
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)
BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A	95		N/A	
SEARCH FEE <small>(37 CFR 1.16(k), (j), or (m))</small>	N/A	N/A	N/A	310		N/A	
EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A	125		N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	20	minus 20 = *	x 30 =	0.00	OR		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	1	minus 3 = *	x 125 =	0.00			
APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	530		TOTAL	

APPLICATION AS AMENDED - PART II					SMALL ENTITY		OR	OTHER THAN SMALL ENTITY		
	(Column 1)	(Column 2)	(Column 3)							
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	x	=	OR	x	=
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee <small>(37 CFR 1.16(s))</small>							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	x	=	OR	x	=
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee <small>(37 CFR 1.16(s))</small>							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.</p>										

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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b>  <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	<i>Attorney Docket No.</i>	HSR01
	<i>First Inventor</i>	Sunil Rao
	<i>Title</i>	Dynamically Configurable IP Based..
	<i>Express Mail Label No.</i>	NA

<b>APPLICATION ELEMENTS</b> <i>See MPEP chapter 600 concerning utility patent application contents.</i>	<b>ADDRESS TO:</b> <b>Commissioner for Patents</b> <b>P.O. Box 1450</b> <b>Alexandria VA 22313-1450</b>
--	--

<p>1. <input type="checkbox"/> <b>Fee Transmittal Form</b> (e.g., PTO/SB/17)</p> <p>2. <input checked="" type="checkbox"/> <b>Applicant claims small entity status.</b> See 37 CFR 1.27.</p> <p>3. <input checked="" type="checkbox"/> <b>Specification</b> [Total Pages <u>16</u>] Both the claims and abstract must start on a new page <i>(For information on the preferred arrangement, see MPEP 608.01(a))</i></p> <p>4. <input checked="" type="checkbox"/> <b>Drawing(s)</b> (35 U.S.C. 113) [Total Sheets <u>5</u>]</p> <p>5. <b>Oath or Declaration</b> [Total Sheets _____]  a. <input type="checkbox"/> Newly executed (original or copy)  b. <input checked="" type="checkbox"/> A copy from a prior application (37 CFR 1.63(d))  <i>(for continuation/divisional with Box 18 completed)</i>  i. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b>  Signed statement attached deleting inventor(s)  name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</p> <p>6. <input checked="" type="checkbox"/> <b>Application Data Sheet.</b> See 37 CFR 1.76</p> <p>7. <input type="checkbox"/> <b>CD-ROM or CD-R</b> in duplicate, large table or Computer Program <i>(Appendix)</i>  <input type="checkbox"/> Landscape Table on CD</p> <p>8. <b>Nucleotide and/or Amino Acid Sequence Submission</b>  <i>(if applicable, items a. – c. are required)</i>  a. <input type="checkbox"/> Computer Readable Form (CRF)  b. <input type="checkbox"/> Specification Sequence Listing on:  i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or  ii. <input type="checkbox"/> Paper  c. <input type="checkbox"/> Statements verifying identity of above copies</p>	<p style="text-align: center;"><b>ACCOMPANYING APPLICATION PARTS</b></p> <p>9. <input type="checkbox"/> <b>Assignment Papers</b> (cover sheet &amp; document(s))  Name of Assignee _____</p> <p>10. <input checked="" type="checkbox"/> <b>37 CFR 3.73(b) Statement</b> <input type="checkbox"/> <b>Power of Attorney</b>  <i>(when there is an assignee)</i></p> <p>11. <input type="checkbox"/> <b>English Translation Document</b> <i>(if applicable)</i></p> <p>12. <input type="checkbox"/> <b>Information Disclosure Statement</b> (PTO/SB/08 or PTO-1449)  <input type="checkbox"/> Copies of citations attached</p> <p>13. <input type="checkbox"/> <b>Preliminary Amendment</b></p> <p>14. <input type="checkbox"/> <b>Return Receipt Postcard</b> (MPEP 503)  <i>(Should be specifically itemized)</i></p> <p>15. <input type="checkbox"/> <b>Certified Copy of Priority Document(s)</b>  <i>(if foreign priority is claimed)</i></p> <p>16. <input type="checkbox"/> <b>Nonpublication Request</b> under 35 U.S.C. 122(b)(2)(B)(i).  Applicant must attach form PTO/SB/35 or equivalent.</p> <p>17. <input type="checkbox"/> Other: _____</p>
--	--

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

Continuation     Divisional     Continuation-in-part (CIP)    of prior application No.: 13/287040.....

Prior application information:                      Examiner: Melody Mehrpour                      Art Unit: 2617

### 19. CORRESPONDENCE ADDRESS

The address associated with Customer Number: 105481    OR     Correspondence address below

Name				
Address				
City	State	Zip Code		
Country	Telephone	Email		

Signature	/Rekha K. Rao/	Date	09/13/2012
Name (Print/Type)	Rekha K. Rao	Registration No. (Attorney/Agent)	

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	HSR01
		Application Number	
Title of Invention	Dynamically Configurable IP Based Wireless Devices and Wireless Networks		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

### Secrecy Order 37 CFR 5.2

<input type="checkbox"/>	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--------------------------	---

### Applicant Information:

<b>Applicant 1</b>						<input type="button" value="Remove"/>
<b>Applicant Authority</b> <input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117		<input type="radio"/> Party of Interest under 35 U.S.C. 118		
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>		
	Sunil	K.	Rao			
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service						
<b>City</b>	Palo Alto	<b>State/Province</b>	CA	<b>Country of Residence i</b>	US	
<b>Citizenship under 37 CFR 1.41(b) i</b>		US				
<b>Mailing Address of Applicant:</b>						
<b>Address 1</b>						
<b>Address 2</b>						
<b>City</b>	Palo Alto	<b>State/Province</b>	CA			
<b>Postal Code</b>	94304	<b>Country<sup>i</sup></b>	US			
<b>Applicant 2</b>						<input type="button" value="Remove"/>
<b>Applicant Authority</b> <input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117		<input type="radio"/> Party of Interest under 35 U.S.C. 118		
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>		
	Sanjay	K.	Rao			
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service						
<b>City</b>	Palo Alto	<b>State/Province</b>	CA	<b>Country of Residence i</b>	US	
<b>Citizenship under 37 CFR 1.41(b) i</b>		US				
<b>Mailing Address of Applicant:</b>						
<b>Address 1</b>						
<b>Address 2</b>						
<b>City</b>	Palo Alto	<b>State/Province</b>	CA			
<b>Postal Code</b>		<b>Country<sup>i</sup></b>				
<b>Applicant 3</b>						<input type="button" value="Remove"/>
<b>Applicant Authority</b> <input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117		<input type="radio"/> Party of Interest under 35 U.S.C. 118		
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>		
	Raman	K.	Rao			
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service						
<b>City</b>	Palo Alto	<b>State/Province</b>	CA	<b>Country of Residence i</b>	US	

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	HSR01
		Application Number	
Title of Invention	Dynamically Configurable IP Based Wireless Devices and Wireless Networks		

Citizenship under 37 CFR 1.41(b) i	US		
<b>Mailing Address of Applicant:</b>			
Address 1			
Address 2			
City		State/Province	
Postal Code		Countryi	
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the <b>Add</b> button.			<input type="button" value="Add"/>

**Correspondence Information:**

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
<input type="checkbox"/> An Address is being provided for the correspondence Information of this application.			
Customer Number	105481		
Email Address	patent@ipholdings.com	<input type="button" value="Add Email"/>	<input type="button" value="Remove Email"/>

**Application Information:**

Title of the Invention	Dynamically Configurable IP Based Wireless Devices and Wireless Networks		
Attorney Docket Number	HSR01	Small Entity Status Claimed	<input checked="" type="checkbox"/>
Application Type	Nonprovisional		
Subject Matter			
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)		Suggested Figure for Publication (if any)	

**Publication Information:**

<input type="checkbox"/> Request Early Publication (Fee required at time of Request 37 CFR 1.219)
<input checked="" type="checkbox"/> <b>Request Not to Publish.</b> I hereby request that the attached application not be published under 35 U.S. C. 122(b) and certify that the invention disclosed in the attached application <b>has not and will not</b> be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

**Representative Information:**

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.			
Please Select One:	<input checked="" type="radio"/> Customer Number	<input type="radio"/> US Patent Practitioner	<input type="radio"/> Limited Recognition (37 CFR 11.9)

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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	HSR01
		Application Number	
Title of Invention	Dynamically Configurable IP Based Wireless Devices and Wireless Networks		
Customer Number	105481		

**Domestic Benefit/National Stage Information:**

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status	Pending		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
	Continuation of	13/287040	2011-11-01		
Prior Application Status	Patented		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13/287040	Continuation of	13/047718	2011-03-14	8090356	2012-01-03
Prior Application Status	Patented		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13/047718	Continuation of	09/591381	2000-06-09	7929950	2011-04-19
Prior Application Status	Patented		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
09/591381	Continuation in part of	09/281739	1999-06-04	6169789	2001-01-02
Prior Application Status	Abandoned		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
09/281739	Continuation in part of	08/764903	1996-12-16		
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the <b>Add</b> button.					<input type="button" value="Add"/>

**Foreign Priority Information:**

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

<input type="button" value="Remove"/>			
Application Number	Country <sup>i</sup>	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			<input type="radio"/> Yes <input checked="" type="radio"/> No
Additional Foreign Priority Data may be generated within this form by selecting the <b>Add</b> button.			
<input type="button" value="Add"/>			

**Assignee Information:**

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

<b>Assignee 1</b>	<input type="button" value="Remove"/>
-------------------	---------------------------------------

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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	HSR01	
		Application Number		
Title of Invention	Dynamically Configurable IP Based Wireless Devices and Wireless Networks			
If the Assignee is an Organization check here. <input checked="" type="checkbox"/>				
Organization Name	IP Holdings, Inc.			
<b>Mailing Address Information:</b>				
Address 1				
Address 2				
City	Palo Alto	State/Province	CA	
Country <sup>i</sup>	US	Postal Code	94304	
Phone Number		Fax Number		
Email Address	patent@ipholdings.com			
Additional Assignee Data may be generated within this form by selecting the Add button.				<input type="button" value="Add"/>

**Signature:**

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.				
Signature	/Rekha K. Rao/		Date (YYYY-MM-DD)	2012-09-13
First Name	Rekha	Last Name	Rao	Registration Number

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

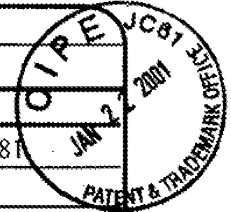
3

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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)</b>  <input type="checkbox"/> Declaration Submitted with Initial Filing    OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge {37 CFR 1.16 (e)} required)	Attorney Docket Number	RAO-012
	First Named Inventor	Rao et al
	<i>COMPLETE IF KNOWN</i>	
	Application Number	09 / 591,381
	Filing Date	June 9, 2000
	Group Art Unit	Not Assigned
	Examiner Name	Not Assigned



As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICE AND WIRELESS NETWORKS**

the specification of which *(Title of the Invention)*

is attached hereto  
OR  
 was filed on (MM/DD/YYYY) 06/09/2000 as United States Application Number or PCT International Application Number 09/591,381 and was amended on (MM/DD/YYYY) \_\_\_\_\_ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

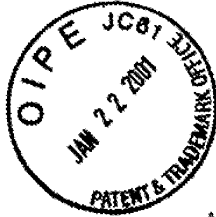
I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)

Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)
08/700,986	08/21/96	
09/281,739	06/04/99	

Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Customer Number  → Place Customer Number Bar Code Label here  
 OR  
 Registered practitioner(s) name/registration number listed below

Name	Registration Number	Name	Registration Number
Stephen E. Baldwin	27,769		
Marion E. Cavanaugh	40,550		
Laurence J. Shaw	34,723		

Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to:  Customer Number or Bar Code Label  OR  Correspondence address below

Name	Stephen E. Baldwin				
Address	Trial & Technology Law Group				
Address	545 Middlefield Road, Suite 220				
City	Menlo Park	State	CA	ZIP	94025
Country	USA	Telephone	(650) 324-2258	Fax	(650) 324-0178

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First inventor:  A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))	Family Name or Surname
Raman K.	Rao

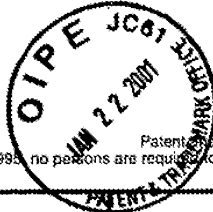
Inventor's Signature	Date
<i>Raman K. Rao</i>	

Residence: City	Palo Alto	State	CA	Country	USA	Citizenship	USA
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Post Office Address: 3087 Alexis Drive

Post Office Address							
City	Palo Alto	State	CA	ZIP	94304	Country	USA

Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto



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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S) Supplemental Sheet</b> Page <u>1</u> of <u>1</u>
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<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Sunil K.				Rao			
Inventor's Signature	<i>Sunil K. Rao</i>					Date	
Residence: City	Palo Alto	State	CA	Country	USA	Citizenship	USA
Post Office Address	3087 Alexis Drive						
Post Office Address							
City	Palo Alto	State	CA	ZIP	94304	Country	USA
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Sanjay K.				Rao			
Inventor's Signature	<i>Sanjay K. Rao</i>					Date	
Residence: City	Palo Alto	State	CA	Country	USA	Citizenship	USA
Post Office Address	3087 Alexis Drive						
Post Office Address							
City	Palo Alto	State	CA	ZIP	94304	Country	USA
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Dynamically Configurable IP Based Wireless Device and Wireless Networks

By:

Sunil K. Rao

Sanjay K. Rao

Raman K. Rao

5

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] The present application is a continuation of U.S. patent application 13/287,040, filed November 1, 2011, which is a continuation of U.S patent application 13/047,718, filed March 14, 2011, now U.S. Patent No. 8,090,356, which is a continuation of U.S. patent application number 09/591,381, filed June 9, 2000, now U.S. Patent No. 7,929, 950, which is a continuation-in-part of U.S. patent application 09/281,739, filed June 4, 1999, now U.S. patent number 6,169,789, which is a continuation-in-part of now abandoned application, 08/764,903, filed December 16, 1996.

10

15

BACKGROUND OF THE INVENTION

[0002] Wireless devices are made to operate at a single set frequency to transmit and receive on a narrow frequency band. The ability to transmit/receive (T/R) and the protocols for executing the T/R function are primarily set in the hardware and are physically set for each mobile device (MD). Some mobile devices (MD) include the ability to reconfigure the MD for different environments and applications in cases where it is required that the phone be able to operate in these other environments and applications.

20

[0003] There is often a proliferation of mobile devices that must be carried by a user. For example, a user may need a device or remote for the public airwaves (cell phone), another for the local or office network and yet another for the home network such as wireless telephones, as well as controllers for TVs and other intelligent appliances. The present art offers limited Internet access and pager functions on some cell phones. Merely offering Internet access and pager functions is not a solution to the problem involved, such as relieving the proliferation of devices.

25

[0004] There is a need for a method to bypass the public wireless carrier, such as cell phones, for wireless telephones for local office or home networks where the public carrier services are not being utilized, without changing devices. This avoids the proliferation of devices mentioned before.

5 SUMMARY OF THE INVENTION

[0005] It is an object of the present invention to provide a wireless communication and control system including a universal wireless device. There is a central server for storing communication protocols and control protocols. The central server communicates the communication protocols and selectively communicates the control protocols between the  
10 wireless device and the central server. The communication protocols configure the system for communication and the control protocols configure the system as one of an arbitrary number of intelligent appliance controllers. Alternately the control protocols configure the system as one of a selection of Internet terminals. The wireless device may be, for example, a hand-held computing device, wireless telephone, or cellular phone.

15 [0006] Other objects, features and advantages of the present invention will become apparent from the following detailed description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

20 [0007] The accompanying drawings, being incorporated in and forming a part of this specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the present invention:

[0008] FIG. 1 is an embodiment illustrating different wireless devices.

[0009] FIG. 2 is an embodiment of a comprehensive wireless networking scheme.

25 [0010] FIG. 3 is an embodiment showing how a server is incorporated in the system.

[0011] FIG. 4 is an embodiment showing how modes and environments may be mapped.

[0012] FIG. 5 is an embodiment of a network control box.

[0013] FIG. 6 is an embodiment illustrating the various parts of a server.

[0014] FIG. 7 is an embodiment with tables illustrating the dynamic reconfiguration of frequency, power, and bandwidth.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

5 [0015] Reference will now be made in detail to preferred embodiments of the invention, with examples illustrated in the accompanying drawings. The invention is described in conjunction with the preferred embodiments, however, it will be understood that the preferred embodiments are not intended to limit the invention. The invention is intended to cover alternatives, modifications and equivalents included, now or later, within the scope of the present invention as defined by the  
10 appended claims.

[0016] In the present invention, a cell phone acts as a radio, TV and pager to receive and transmit at different frequencies. In addition it is set to bypass the public wireless carrier for local office or home networks where the public carrier services are not required for communication.

[0017] The mobile device is dynamically software reconfigurable for the various environments.  
15 An example is such as the public networks in one or more countries, which may operate at different frequencies. Another example is found in the office, such as at one or more office locations operating at different frequencies, or in the home. It is desirable that the MD be dynamically tuned for transmit and receive functions suitable for each environment. For example, current wireless conditions may be determined by sensing the signal to noise ratio and the bit error rate. These  
20 parameters are a part of an error detection, error correction (EDEC) system in an embodiment of the system of the present The allowed power/channel bandwidth for a given environment or operating mode will be determined, for example, from a table in Server C. This would allow a phone in the USA to work on GSM, as an example. In the present invention a phone or other wireless device can be a remote TV controller, garage controller, or similar intelligent appliance. It can be a cordless  
25 phone.

[0018] The system of the present invention, including a wireless device forming a part of the system can work with, for example, GPS, or with public wireless location systems, to improve locating capabilities. For instance, since both the home and office network units/boxes are at known locations, tuning a CT/MD for operation as a GPS receiver, or other locating system, to the network

units/boxes would give a precise location with respect to the home or office units/boxes. There are two possible locations for only two stations. Normally, therefore, three stations are required, but in many cases, for a CT/MD, one of the two locations is known to be invalid. For example, the location is known well enough to automatically rule out one location. In this case, the location will be precisely known from only the office and home network boxes, or from these units/boxes with respect to a public wireless station, or with respect to a satellite, or both. This software based configuration is available from the network, such as from a server C located on the Internet that enables dynamic reconfiguration anywhere in the world for a CT/MD.

**[0019]** The MD is able to sense which environment it is primarily operating in at a given moment while maintaining the ability to switch instantaneously to a different environment. It has the ability to be in a watchdog or sleep mode in different environments while very active in a given environment at a particular time. This allows the MD to be very useful in one or more environments as the use dictates.

**[0020]** The same MD can be a part of the wired network and one or more wireless networks obviating the need for multiple devices. The MD operates in the IP mode (Internet Protocol) in the wired or wireless domains. The invention also deals with either wired or wireless network control/management units such as a multichannel, multiplexing transmit/receive (T/R) device – referred to also as a network unit or box – when they exist in each environment.

**[0021]** The present invention deals with any wired or wireless network box as a dynamically configurable device utilizing the power of the Internet and a central server C working alone or in tandem with other servers where ever they are located, and local or Internet based network boxes. This is illustrated using a cellular telephone but is fully extendable to all mobile devices.

**[0022]** FIG. 1 illustrates embodiments of a cellular telephone (CT) and a mobile device (MD). In FIG. 1, CT 102 is representative of the type of phone useful for the improved uses of the present invention. It will be clear to those of ordinary skill in the art that physical changes to the CT are not required. MD 104 is representative of the type of MD useful for the improved uses of the present invention, and as with the CT does not require physical changes. Wireless device (WD) 106 represents another embodiment of the CT and/or MD, and also will require no physical changes to implement the improvements of the present invention.

[0023] FIG 2A is an illustration of an embodiment of a communication and control system 200.

In FIG. 2A:

[0024] Cellular telephone or mobile device (CT/MD) 202 working in a domain 200 is highlighted in Figure 2. In this embodiment the primary mode is through a public carrier 208.

5 [0025] The cellular phone (CT) 202 can initiate wireless IP connection 204 to the Internet 206 via the public carrier 202 at a set frequency, Fp 208, designated by the carrier and tuned for T/R for that particular carrier's FCC approved frequency band of operation. The carrier senses the T/R and makes either wired or wireless connections 210 to the Internet via an Internet backbone connection 212 to a desired Server C 214 or any web site 216 as defined by a URL request 224 of the CT/MD 202.

10

[0026] When a CT/MD 202 wishes to use the services of Server C 214, the Server C 214 delivers the content or performs functions as requested by the CT/MD 202.

[0027] A CT/MD 202 can store profiles and other user specific information on the Server C 214.

15

[0028] Server C 214 can be used to keep the various "functional instruction sets" (FIS) and software (S/W) 218 for use by the CT/MD 202. The FIS and software 218 resident on Server C 214 will serve to provide the primary repository/exchange to deliver various mode reconfiguration requests to the CT/MD 202. For example, the CT/MD 202 may send a request to the Server C 214 for configuration as a cell phone because it is not in the home environment. In this mode the CT/MD 202 may still receive inputs/outputs from to the local office loop network box or the home network box via the public carrier channel 208.

20

[0029] The ability to sense and switch from one mode to the other may include linking 222 to a Global Positioning System (GPS) 220 that determines the exact location of the CT/MD 202. Thus the CT/MD 202 may sense (or the appropriate network box at the office or home may sense) the location of the network box or the net to bring the CT/MD 202 into any local or carrier loop 208.

25

[0030] The CT/MD 202 in conjunction with the Server C 218 can decide the preferred mode to be in. There may be a primary mode and several secondary modes or a hierarchy of modes. The primary mode may switch from local office FIG. 2B to a public carrier loop 208, followed by a home loop FIG. 2C. This switching may be automatic or per specific functional instruction sets 218 and preferences stored on the Server C 214 or in the CT/MD 202 itself.

[0031] FIG. 2B is an illustration of an embodiment of a Local Office Loop 230 in accordance with the present invention. In FIG. 2B, a local wireless office IP network 232, which could also be a local area network (LAN) or other connectivity means, communicates with local servers 234. Servers 234 then connect on an as-needed basis with, for example, the world wide web (WWW).

5 [0032] The same CT/MD 202 can function in the local office loop 230 under the supervision of a local office wireless network switch or box 232.

[0033] The local office 230 can operate at the same or a different frequency for T/R. It is preferable for the local network box 232 and loop 230 to be at different frequencies that are geared toward a smaller area of influence. In that way the local network box 232 and loop 230 do not  
10 interfere with, for example, a public carrier frequency domain. The local network box 232 and loop 230 will be under the control of the local office – such as an office building or office campus.

[0034] The local wireless network switch or box 232 may operate at one or more frequencies. In this way, one of more channels will be devoted to a public carrier frequency 210 for T/R and one or more channels 208 will be devoted for T/R optimized for localized use in the campus or office  
15 building.

[0035] The CT/MD 202 when in the local office loop 236 can switch itself for optimal performance in the local office loop 230 by downloading/uploading FSI 218 and/or protocols in tandem with Server C 214.

[0036] Thus the CT/MD 202 can serve as a cordless phone in the local environment for  
20 interoffice phone calls or local area network 236 access working in tandem with a local network box 232.

[0037] In a similar fashion as described above, the CT/MD 202 also serves as a remote controller 270 for controlling intelligent office appliances 238 such as copiers and faxes.

[0038] FIG. 2C illustrates a CT/MD 202 in the home loop 260. In FIG. 2C, the CT/MD 202  
25 communicates through an optional uplink/downlink such as a transmit/receive unit 262 to home server 264. Home server 264 controls Home Intelligent Appliances (HIAP) 266. In this way, the CT/MD 202 can be a TV remote 272, remote access 274 for an oven or microwave for starting/stopping an operation at a desired time, or perform other household duties.

[0039] The same CT/MD 202 will function in the local home loop 260 under the supervisory control of a home network box 262 able to T/R in a specific home frequency band.

[0040] The home wireless network box 262 operates at same or different frequency of T/R as a public carrier 210. However, it is desirable to have different frequency of T/R optimized for home area wireless networks.

[0041] The local home wireless network box 262 may operate at one or more public carrier frequencies 210 and one or more local home wireless network box frequencies 268.

[0042] The CT/MD 202 when in the home wireless network mode may switch itself for this task for optimal performance by downloading/uploading FIS 218 (function instruction software) and/or protocols in tandem with Server C 214.

[0043] The CT/MD 202 may serve as a cordless phone (connected or hooked into a landed telephone line as an example, and operating as a telephone or as an IP phone) in the home wireless network loop 260 because it is now configured by the FIS 218. Also, the CT/MD 202 may be emulated by a cordless phone, such as by being configured with the FIS 218, allowing the functions of the CT/MD 202 to be performed without wasting air time. When the CT/MD 202 is being emulated by a cordless telephone, the cordless telephone base station may also be emulated by, for example, home server 264, such as by inserting a memory card to reconfigure the home server 264. One CT/MD 202, even when being emulated by, for example, a cordless phone, serves many purposes as opposed to requiring many telephone hand sets (one for the home, one for the office, and one for the car, as an example). Paging from one phone to the other in the wireless home network may be done very easily. All you need to carry is your CT/MD 202, real or emulated, which doubles as a regular telephone hand set.

[0044] In a similar fashion as described above, the CT/MD 202 may serve as a remote controller for various IP based intelligent wireless or wired home appliances 266. The TV may be controlled using the cell phone if the TV set is capable of receiving wireless commands. Opening the garage door may be done with a macro command downloaded from the Central Server C 214.

[0045] Any set of "macro commands" and or detailed FIS 218 may be written for specific wireless intelligent appliances 266 or wireless intelligent equipment 238 to control/command all of these using the CT/MD 202 in conjunction with Server C 214.

[0046] The commands/instructions are keypad, textual, sound or voice actuated and can be in one or more languages, such as Chinese, English or any other language supported.

[0047] FIG. 3 illustrates how a CT/MD 302 cooperates with a Server C 306. In FIG. 3, internal structure 304 of CT/MD 302 shows how CT/MD 302 is organized for operation with Server C 306. Server C 306 also has instructions 308 as well as FIS 218 for allowing operation with CT/MD 302, and input/output paths 310 and 312 from Server C 306 for interfacing or transmitting and receiving from and to external devices such as intelligent appliances 266 or intelligent equipment 238.

[0048] FIG. 4 illustrates how the communication and control system 200 of the present invention is mapped 402, 404 to various modes. In FIG. 4 only primary, secondary and tertiary modes are shown in table 402 and in table 404, but more modes can be easily accommodated by simple extensions of the entries shown. In connection with FIG. 4:

[0049] The CT 202 wishes to be in the primary mode of the local wireless office loop 230 whereas it is currently in the public carrier wireless loop 200.

[0050] A request, menu or macro command is chosen by the CT 202 and a request for reconfiguration is sent to the Server C 214 via the wireless Internet 204 using frequency Fp and utilizing a public carrier 208.

[0051] The Server C 214 looks up the functional instruction set 218 and maps the instruction set for transmission to the CT 202. The CT 202 processes the instruction set via the controller and processor electronics located within the CT 202 and loads the new FSI 218 into the memory block of the CT 202, and tunes/sets the frequencies within the T/R blocks to primary frequency Fp and secondary frequency Fl. Now the CT 202 is converted to the primary local office mode 230.

[0052] The CT 202 is now operating in the local office 230 loop and can control/communicate with various units, appliances and equipment 238 within the loop working in tandem with the local wireless network box 232. Similar examples can be shown for home wireless network box 262.

- i) In the present invention Transmit and Receive frequencies may be tuned to one or more primary values and one or more subsidiary values.
- ii) The functional instruction sets 218 may be downloaded/uploaded from/to the central server C 214 for optimal performance in a given domain and may be downloaded/uploaded into the memory of the CT/MD 202.



- iii) The secondary or subsidiary modes are active to instantly spring into action/service as needed without losing the full feature functionality. Thus the device 202 instantly becomes a cell phone in the public carrier network 210 upon receiving a signal even when it is operating in the local wireless network 208 loop.
- 5 iv) Server C 214 may keep watchdog functions alive when the CT 202 is in a different mode or is inactive to instantly deliver all the content that might have been sent in the meantime as though the CT 202 was in the public carrier 210 domain.
- v) Controller electronics within the CT/MD 202 work in tandem with Server C 214 to deliver the functionality and maintain the ability to switch modes and keep track of modes.
- 10 vi) The processor electronics within the CT/MD 202 along with the processing and software capability of Server C 214 is able to continually deliver all necessary processing horsepower and capability to device CT/MD 202.
- vii) The memory electronics within the CT/MD 202 keeps/caches instructions and other data in conjunction with Server C 214 to quickly execute tasks and efficiently update changes in  
15 models.
- viii) The Transmitter and Receiver are independently tunable to one or more frequencies for operation in different environments based on the instructions of internal controller electronics and that of Server C 214.

[0053] FIG. 5 is an embodiment of the wireless communication and control system of the present invention with more detail of the network control box 500. Server C 214 is located at home 260, office 230 or other location 200 and has one or more assigned channels of inputs and outputs 502. Example: standard telephone line, cable, or standard public carrier cellular telephone frequency.

[0054] Other input and output channels 504 are each dynamically tunable, such as to specific power levels, channel bandwidths and frequencies of operation, for maintaining reliability and integrity and to receive/transmit wireless communications from/to one or more services.

[0055] Inputs and outputs 502, 504 are multiplexed for optimal assignment by the controller, Server C 214, based on requests and utilization/demand.

[0056] The network box 500 may have one or more static IP addresses and one or more dynamic IP addresses may be assigned by the network box 500 to a different MD/SD 202 in the wireless network 200, 230, 260.

5 [0057] The functional instruction sets 218 for configuration to different modes is maintained on a Central Server C 214 located on the Internet 206. The Server C 214 works in tandem with the controllers located within the CT/MD 202 or within the local or home wireless network switch/box 500 to dynamically configure the network switch 500 and the CT/MD 202. Both the CT/MD 202 and the wireless network control box 500 are dynamically configurable working in tandem with Server C 214 located on the Internet 206.

10 [0058] The present invention deals with the issues of functionality using a wired or wireless network box and the dynamically configurable device utilizing the power of the Internet. In accordance with the invention, a central server C 214 (one or more) works alone or in tandem with other local and Internet servers and local or other Internet based network boxes. This will be illustrated using a cellular telephone but is fully extendable to all mobile devices.

15 [0059] Cellular telephone or mobile device CT/MD 202 working in the domain 200, 230, 260 highlighted in FIG. 2A, FIG. 2B, and FIG. 2C. Primary mode is through public carrier 204.

[0060] CT 202 initiates wireless IP connection to the Internet 206 via the public carrier 204 at a set frequency, Fp 208, designated by the carrier and tuned for T/R for that particular carrier's FCC approved frequency band of operation. The carrier senses the T/R and makes either wired or  
20 wireless connections to the Internet 206 via the Internet backbone connection 212 to a desired Server C 214 or any web site 216 as defined by the CT/MD's URL request. CT/MD 202 completes the transaction as defined by this loop 200, 230, 260.

[0061] When CT/MD 202 wishes to use the services of Server C 214, the Server C 214 works to efficiently deliver the content or perform functions requested by CT/MD 202.

25 [0062] CT/MD 202 utilizes the profiles and other user specific information 218 stored on the Server C 214.

[0063] Server C 214 is used to keep the various "functional instruction set" and software 218 for use by CT/MD 202. This FIS and software 218 resident on Server C 214 will serve as the primary repository/exchange to deliver various mode reconfiguration requests to the CT/MD 202. For

example, the CT/MD 202 may send a request to the Server C 214 to be configured as a cell phone because it is not in the home environment 260. In this mode the CT/MD 202 may still receive inputs/outputs from to the local office loop network box 232 or the home network box 262, but this is via the public carrier channel 208.

5 [0064] The ability of a CT/MD 202 to sense and switch from one mode to the other may be linked to a Global Positioning System (GPS) 220 that determines the exact location of the CT/MD 202. The CT/MD 202 may sense (or the appropriate network box 232, 262 at the office or home may sense) the location of the network box 232, 262 or the net to bring the CT/MD 202 into any local or carrier loop.

10 [0065] The CT/MD 202 in conjunction with the Server C 214 decides the preferred mode to be in. There may be a primary mode and several secondary modes or a hierarchy of modes. The primary mode may be local office 232 and then the public carrier 204 loop, followed by the home 262 loop. This switching may be automatic or per specific functional instruction set 218 and preferences stored on the Server C 214 or in the CT/MD 202 itself.

15 [0066] FIG. 2B is an embodiment of a Local Office 230 Loop. In FIG. 2C a local wireless office IP network 232 communicates with a CT/MD 202 and with Office Servers 234. Office Servers 234 then connect to the Internet 206 and from there to Server C 214. Server C 214 then connects to websites and servers on the Internet 206 as required.

20 [0067] The CT/MD 202 functions in the local office 230 loop under the supervision of a local office wireless network switch or box 232.

[0068] The local office 230, such as a local network box 232, can operate at the same or different frequencies for T/R. It is preferable for the local network box 232 and loop 230 to be at different frequencies geared towards a smaller area of influence so as not to interfere with a public carrier frequency domain 210. This also allows the local network box 232 to be under the control of the  
25 local office 230 – such as an office building or office campus.

[0069] The local wireless network switch or box 232 operates at one or more frequencies with one or more channels devoted to public carrier frequencies 210 for T/R and one or more channels for T/R optimized for localized use 236 in the campus or office building.

[0070] The CT/MD 202, when in the local office 230 loop, switches itself for optimal performance in the local office 230 loop by downloading/uploading FIS 218 instructions and/or protocols in tandem with Server C 214.

5 [0071] In one embodiment the CT/MD 202 serves as a cordless phone in the local environment for interoffice phone calls or local area network 236 access working in tandem with local network box 232.

[0072] In a similar fashion as described above, the CT/MD 202 also serves as a remote controller for controlling intelligent office appliances 238 such as copiers and faxes.

10 [0073] FIG. 6 is an embodiment of the communication and control system 600 of the present invention. In FIG. 6, CT/MD 202 is being used in the home loop 260 and illustrates how a processor 602 and memory 604 form a controller 606 with a transmitter 608 and receiver 610 to provide the Server C 214 of the present invention.

[0074] The CT/MD 202 may function in the local home 260 loop under the supervisory control of a home network box 500 able to T/R at the specific home frequency band.

15 [0075] The home wireless network box 500 operates at the same or different frequencies of T/R as a public carrier. It is desirable to have different frequencies of T/R optimized for home area wireless networks.

[0076] The local home wireless network box operates at one or more public carrier frequencies and one or more local home wireless network box frequencies.

20 [0077] The CT/MD 202, when in the home wireless network 260 mode, switches itself for this task for optimal performance by downloading/uploading FIS 218 (function instruction software) and/or protocols in tandem with Server C 214.

25 [0078] The CT/MD serves as a cordless phone (connected or hooked into a landed telephone line, as an example) in the home wireless network loop because it is now configured to be so by the FIS. Thus one CT/MD serves many purposes such as replacing many telephone hand sets (one for the home, one for the office, and one for the car). Paging from one phone to the other in the wireless home network may be done very easily. The CT/MD doubles as a regular telephone hand set.

[0079] In a similar fashion as described above, the CT/MD may also serve as a remote controller for various IP based intelligent wireless or wired home appliances. The TV may be controlled using the cell phone if the TV set is capable of receiving wireless commands/output. The electronic garage door opener may be a macro command downloaded from the Central Server C.

5 [0080] FIG. 7 is an embodiment of the communication and control system 700 of the present invention with tables demonstrating parameter setting for a CT/MD 202 or a Server C 214, such as for different configurations and environments. In FIG. 7, CT/MD 202 supports two frequencies in this embodiment, and both are dynamically changed in real time, including power output and channel bandwidth as well as frequency, in this embodiment. Table 702 represents the initial  
10 operating state, and table 704 represents the new operating state assumed by the CT/MD 202 or the Server C 214.

[0081] Any set of “macro commands” and or detailed FIS 218 may be written for specific wireless intelligent appliances 266 or equipment 238 to control or command all of these using the CT/MD 202 in conjunction with Server C 214. The control of the intelligent appliances 266 or  
15 intelligent equipment 238 is done in real time with dynamic reallocation of the environment as shown in tables 702 and 704.

[0082] The foregoing descriptions of specific embodiments of the present invention have been presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the invention to the precise forms disclosed, and it should be understood that many  
20 modifications and variations are possible in light of the above teaching. The embodiments were chosen and described in order to best explain the principles of the present invention and its practical application, to thereby enable others skilled in the art to best utilize the present invention and various embodiments, with various modifications, as are suited to the particular use contemplated. It is intended that the scope of the invention be defined by the Claims appended hereto and their  
25 equivalents.

CLAIMS

WHAT IS CLAIMED IS:

- 5           1. A wireless communication system, comprising:  
a wireless device which supports voice and data communications;  
a server; and  
a memory, wherein a processor is communicatively coupled with the memory,  
wherein the memory stores functional instructions including instructions for use in  
10 providing a plurality of functions to the wireless device, at least one of the functional instructions  
adapted for switching between one or more networks including at least one public network, and  
wherein the memory further stores a plurality of communication protocols, that facilitate  
communication between the server and the wireless device, and wherein the server controls  
dynamic conversion of the wireless device from a first function to a second function to enable a  
15 plurality of functions at the wireless device.
2. The system of claim 1, wherein the server is located at a carrier for the wireless  
device.
- 20           3. The system of claim 1, wherein the wireless device receives a functional instruction  
to access radio frequency waves, thereby acting as a radio.
4. The system of claim 1, wherein the wireless device receives a functional instruction  
to access TV waves, thereby acting as a TV.
- 25           5. The system of claim 1, wherein the wireless device receives a functional instruction  
to access TV waves, and the wireless device transmits the functional instruction to a TV.

6. The system of claim 1, wherein the wireless device receives a functional instruction to access cellular data waves, thereby acting as a cellular telephone.

5 7. The system of claim 1, wherein the wireless device receives a functional instruction from the server at a carrier to adapt to a different frequency and wireless protocol, thereby allowing the wireless device to switch between a first network and a second network dynamically.

10 8. The system of claim 1, wherein the wireless device includes any of a TV controller, garage controller, cordless phone, cellular device, mobile device, and other intelligent appliances.

15 9. The system of claim 1, wherein the wireless device is adapted to query a server for frequency to communicate with a separate device.

10. The system of claim 1, wherein the wireless device is adapted to work in conjunction with a wireless local area network and wherein the wireless device is coupled to the memory and the processor.

20 11. The system of claim 1, wherein the server is located on the Internet or at a carrier base station.

25 12. The system of claim 1, wherein the wireless device is adapted to be reconfigured by a carrier to use a different communication protocol through use of functional instructions transmitted over a carrier.

13. The system of claim 1, wherein the functional instructions include sets of functions instructions, and wherein a function instruction set is a set of commands that enables wireless device reconfiguration.

14. The system of claim 1, wherein the wireless device utilizes a first protocol and is adapted to be reconfigured by a public carrier such that the wireless devices utilizes a second protocol.

5

15. The system of claim 1, wherein the wireless device utilizes a local network box to identify the location of a user.

16. The system of claim 1, wherein the wireless device is adapted to be reconfigured by a public carrier based upon a GPS location of the wireless device.

10

17. The system of claim 1, wherein the wireless device is adapted to be reconfigured based upon its proximity to an access point or local or office network.

18. The system of claim 1, wherein the wireless device is adapted to recognize its proximity to various wireless networks and initiate a configuration based thereon.

15

19. The system of claim 1, wherein the wireless device is adapted to store one or more profiles on the server.

20

20. The system of claim 1, wherein a set of functional instructions is any set of commands that can reconfigure parameters of the wireless device.

25



ABSTRACT OF THE DISCLOSURE

5 A wireless communication and control system including a wireless device. There is a  
central server for storing communication protocols and control protocols and communicating the  
communication protocols and selectively communicating the control protocols between the  
wireless device and the central server. A communication protocol configures the system for  
communication and control protocols configure the system as one of a selection of intelligent  
appliance controllers. Alternately the control protocols configure the system as one of a  
selection of Internet terminals. The wireless device is any hand-held communication device,  
10 such as a hand-held computing device, wireless telephone, or cellular phone.

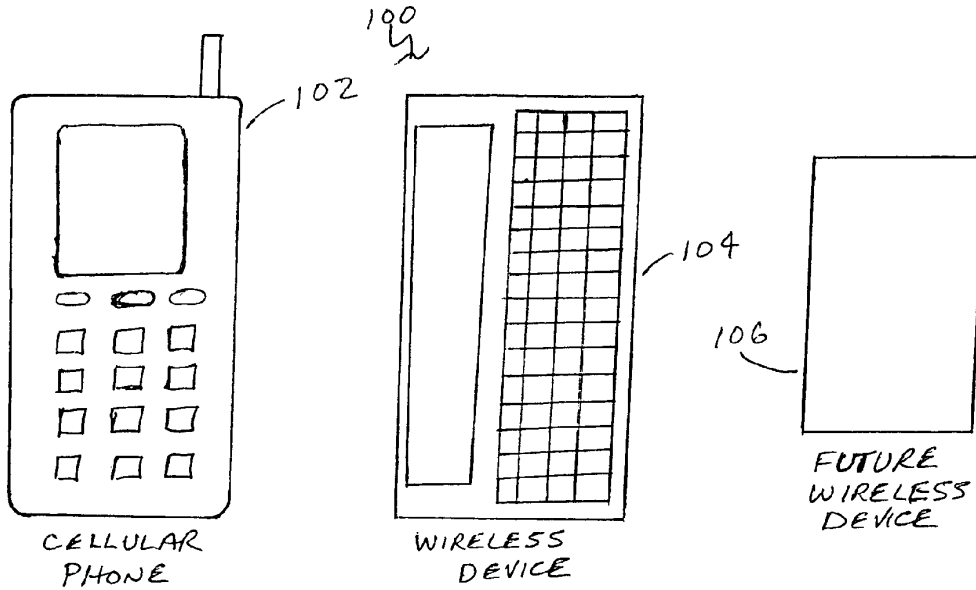


FIG. 1

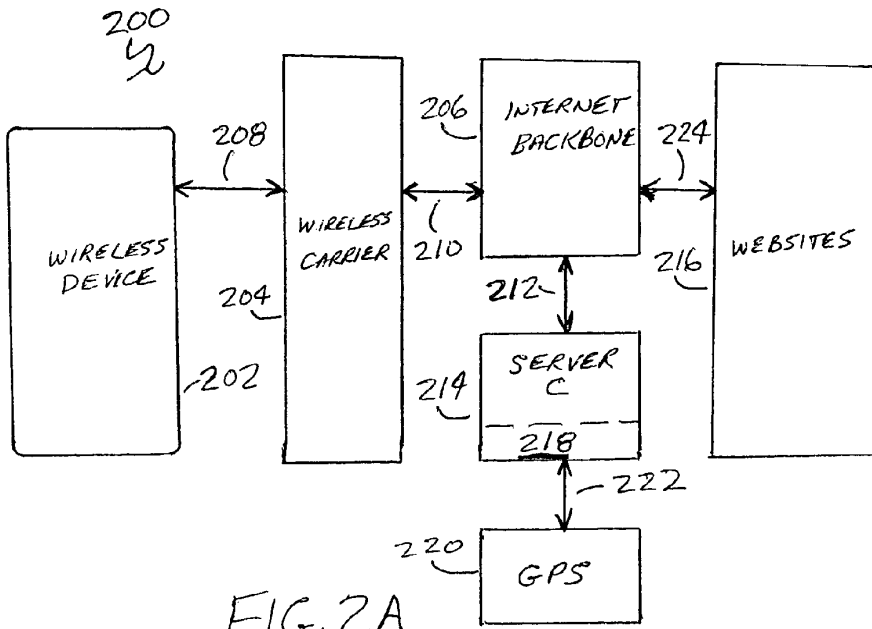
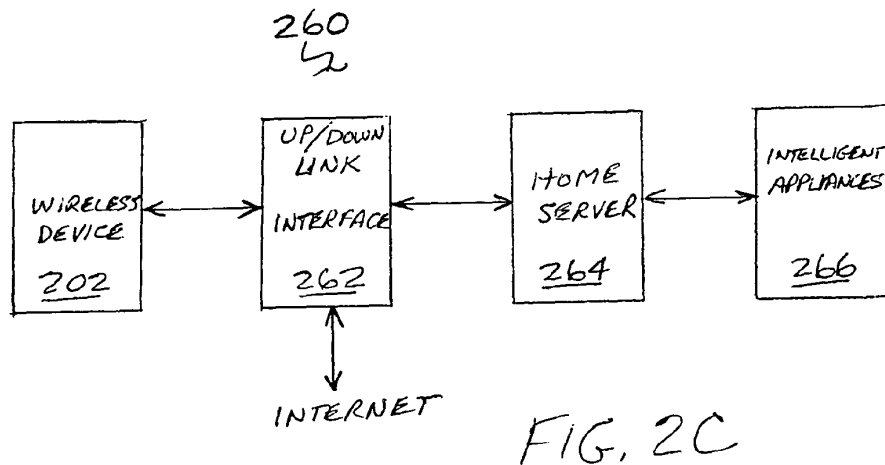
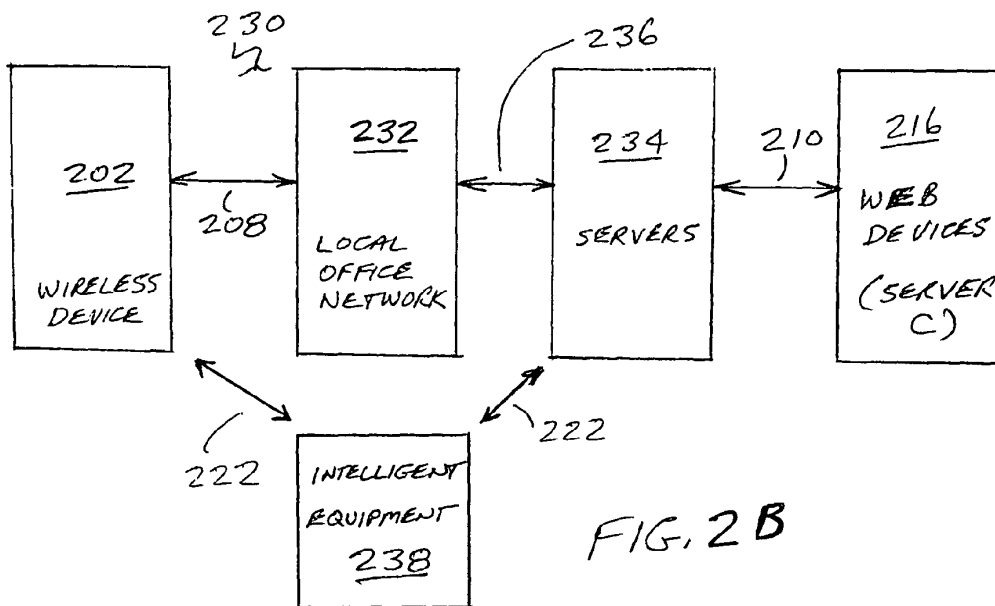


FIG. 2A



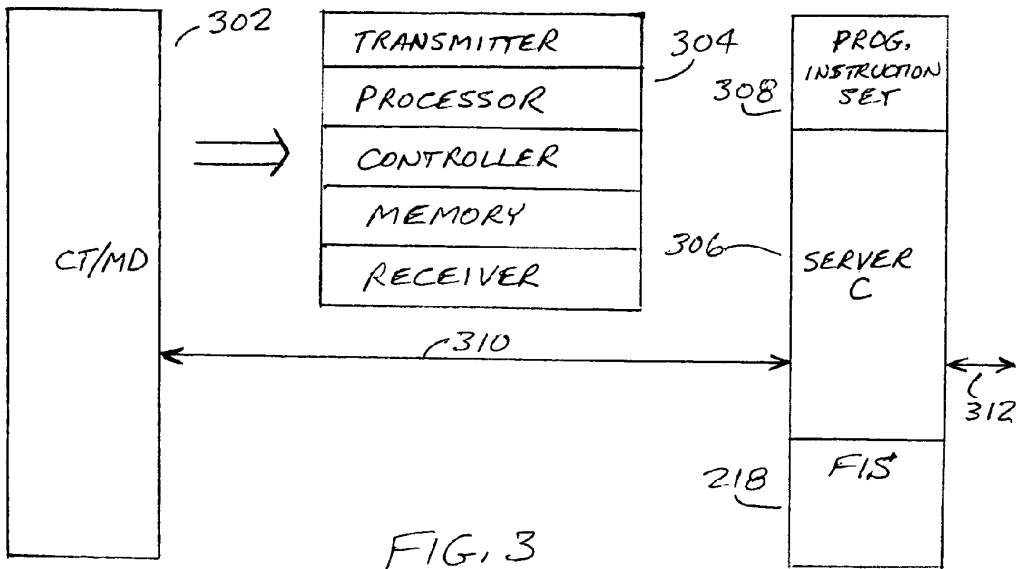


FIG. 3

400  
 CURRENT MODE - PRIORITY 402

PRIMARY	SECONDARY	TERTIARY
PUBLIC CARRIER LOOP	HOME LOOP	LOCAL OFFICE LOOP
FREQUENCY FP	FREQUENCY FH	FREQUENCY FL



REQUESTED MODE - PRIORITY 404

PRIMARY	SECONDARY	TERTIARY
LOCAL OFFICE LOOP	PUBLIC CARRIER	HOME LOOP
FL	FP	FH

FIG. 4

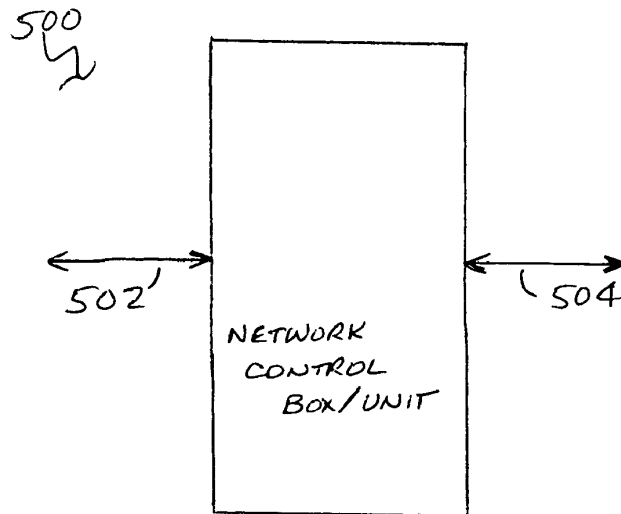


FIG. 5

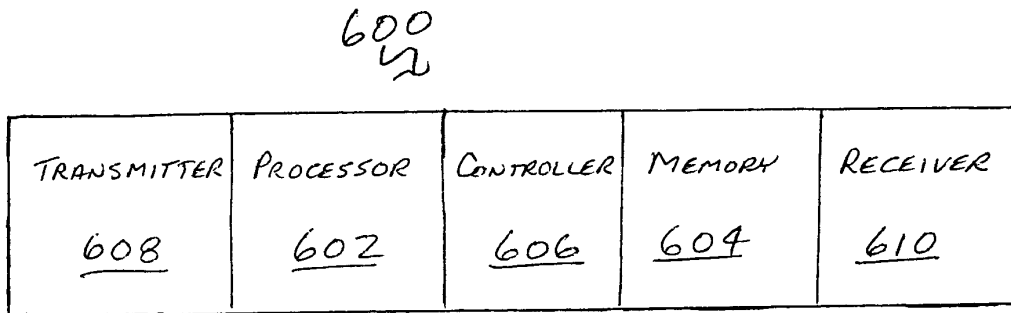


FIG. 6

700  
↙

702

FREQUENCY SOURCE	PARAMETER
CHANNEL 1	f1, P1, BW1 ---
CHANNEL 2	f2, P2, BW2 ---
CHANNEL N	fN, PN, BWN ---

704

FREQUENCY SOURCE	PARAMETER
CHANNEL 1	f3, P3, BW3 ---
CHANNEL 2	f4, P4, BW4 ---
CHANNEL N	fM, PM, BWM ---

FIG. 7

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Raman K. RAO et al.

Application No./Patent No.: Not Yet Assigned Filed/Issue Date: Concurrently Herewith

Titled: DYNAMICALLY CONFIGURABLE IP BASED WIRELESS DEVICE AND WIRELESS NETWORKS

IP Holdings, Inc., a corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- 1.  the assignee of the entire right, title, and interest in;
- 2.  an assignee of less than the entire right, title, and interest in  
(The extent (by percentage) of its ownership interest is \_\_\_\_\_ %); or
- 3.  the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

the patent application/patent identified above, by virtue of either:

A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 025955, Frame 0288, or for which a copy therefore is attached.

OR

B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
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3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Johney U. Han/  
Signature

November 1, 2011  
Date

Johney U. Han  
Printed or Typed Name

Attorney of record  
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>NONPUBLICATION REQUEST UNDER 35 U.S.C. 122(b)(2)(B)(i)</b>	First Named Inventor		Sunil Rao et al
	Title	Dynamically Configurable IP Based Wireless Dev	
	Attorney Docket Number		HSR01

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

I hereby request that the attached application not be published under 35 U.S.C. 122(b).

/Rekha K. Rao/

9/13/2012

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Rekha K. Rao

\_\_\_\_\_  
Typed or printed name

\_\_\_\_\_  
Registration Number, if applicable

\_\_\_\_\_  
Telephone Number

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing**.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

This collection of information is required by 37 CFR 1.213(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>				
<b>Filing Date:</b>				
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Device and Wireless Networks			
<b>First Named Inventor/Applicant Name:</b>	Sunil K. Rao			
<b>Filer:</b>	Rekha Kaliputnam Rao			
<b>Attorney Docket Number:</b>	HSR01			
Filed as Small Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
Utility filing Fee (Electronic filing)	4011	1	95	95
Utility Search Fee	2111	1	310	310
Utility Examination Fee	2311	1	125	125
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>530</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	13741839
<b>Application Number:</b>	13615274
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2191
<b>Title of Invention:</b>	Dynamically Configurable IP Based Wireless Device and Wireless Networks
<b>First Named Inventor/Applicant Name:</b>	Sunil K. Rao
<b>Customer Number:</b>	105481
<b>Filer:</b>	Rekha Kaliputnam Rao
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	HSR01
<b>Receipt Date:</b>	13-SEP-2012
<b>Filing Date:</b>	
<b>Time Stamp:</b>	19:48:59
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$530
RAM confirmation Number	7847
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Transmittal of New Application	1_patentTransmittalForm.pdf	321332 a9f22573790f57158608b4afa755dfaa5299c55b	no	2
<b>Warnings:</b>					
<b>Information:</b>					
2	Application Data Sheet	2_applicationDataSheet.pdf	1425912 54eb7a0f8bd32205ba14407bd07d928f4daa447b	no	5
<b>Warnings:</b>					
<b>Information:</b>					
3	Oath or Declaration filed	3_declaration.pdf	331269 8e6632f6e231541f63f59327284fe315148381f4	no	3
<b>Warnings:</b>					
<b>Information:</b>					
4		4_Specification.pdf	305941 5a0a0e18047f1d09a8c8482f2ebff07e2606afcb	yes	17
	<b>Multipart Description/PDF files in .zip description</b>				
	<b>Document Description</b>		<b>Start</b>	<b>End</b>	
	Specification		1	13	
	Claims		14	16	
	Abstract		17	17	
<b>Warnings:</b>					
<b>Information:</b>					
5	Drawings-only black and white line drawings	5_images.pdf	297792 4e148f76bee243db42111398fc01d024ad589999	no	5
<b>Warnings:</b>					
<b>Information:</b>					
6	Assignee showing of ownership per 37 CFR 3.73(b).	6_assignmentFromPrevious.pdf	132065 a16e9beb3fe565b77dd58f26138cbff1a84a41b1	no	1
<b>Warnings:</b>					
<b>Information:</b>					
7	Nonpublication request from applicant.	7_nonpublication.pdf	233696 3d262782f6a508976f773dff1ca57b0da4b168fea	no	2
<b>Warnings:</b>					
<b>Information:</b>					

8	Fee Worksheet (SB06)	fee-info.pdf	32877 80964d39868dfd5531260f1446811a828c53ad64	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>				3080884	
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					