

RECORDATION FORM COVER SHEET  
PATENTS ONLY

Atty Ref/Docket No.: 279.J64US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying parties:

Shibaji Shome, Pramodsingh Hirasingsh Thakur,  
Yinghong Yu, Keith L. Herrmann, Aaron R. McCabe,  
Jiang Ding

Additional name(s) of conveying party(ies) attached?

[ ] Yes [X] No

3. Nature of conveyance:

[X] Assignment [ ] Merger  
[ ] Security Agreement [ ] Change of Name  
[ ] Other

Execution Date: July 13, 2012, July 26, 2012, July 10,  
2012, June 26, 2012, July 11, 2012, July 11, 2012

2. Name and address of receiving party:

Name: Cardiac Pacemakers, Inc.

Street Address: 4100 Hamline Avenue North

City: St. Paul State: MN Zip: 55112-5798

Country: United States of America

Additional name(s) & address(es) attached? [ ] Yes  
[X] No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.

B. Patent No.(s)

Serial No. 13/552,996, filed July 19, 2012

Additional numbers attached? [ ] Yes [X] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Suneel Arora

Address:

Schwegman, Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402--0938

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 40.00

[ ] Enclosed

[X] Authorized to be charged to deposit account  
19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

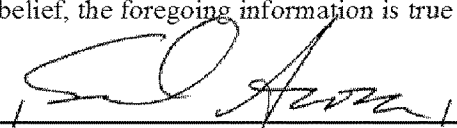
DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suneel Arora/Reg. No. 42,267

Name of Person Signing



Signature

September 29, 2012

Date

Total number of pages including cover sheet: 9

Mail documents to be recorded with required cover sheet information to:

**Commissioner of Patents and Trademarks**  
**Mail Stop Assignment Recordation Services**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

CH \$40.00 190743 13552996

PATENT

Attorney Docket No. 279.J64US1  
Client Ref. No. 11-122

#### ASSIGNMENT

WHEREAS, Shibaji Shome, Pramodsingh Hirasingsh Thakur, Yinghong Yu, Keith L. Herrmann, Aaron R. McCabe, Jiang Ding (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on July 19, 2012 which application was assigned US patent application serial number 13/552,996, and which is titled OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS; which are described in a patent application filed on August 26, 2011, which application was assigned US application serial number 61/528,013, and which is titled OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS; which are described in a patent application filed on July 22, 2011, which application was assigned US application serial number 61/510,704, and which is titled OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Cardiac Pacemakers, Inc. (the "Assignee"), a corporation of the State of Minnesota, having a place of business at 4100 Hamline Avenue North, St. Paul, MN 55112-5798, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

**PATENT**

**REEL: 029094 FRAME: 0291**

**Assignment**

Assignors: Shibaji Shome et al.

Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS

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Docket No: 279.164US1

Client Ref. No. 11-122

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 45458 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.


THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment  
Assignors: Shibaji Shome et al.  
Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS  
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Docket No: 279.J64US1  
Client Ref. No. 11-122

Assignor:

(Signature): 

Name: Shibaji Shome

City/State: Arden Hills, MN

Date: 07/13/2012

STATE OF MN )

)ss

COUNTY OF RAMSEY )

On this 13 day of July, 2012 before me personally appeared Shibaji Shome, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.





Notary Public

Assignment  
Assignors: Shibaji Shome et al.  
Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS  
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Docket No: 279J64US1  
Client Ref. No. 11-122

Assignor:

(Signature): 

Name: Pramodsingh Hirasingsh Thakur

City/State: White Bear Lake, MN

Date: 7/26/12

STATE OF Minnesota )

)ss

COUNTY OF Ramsey )

On this 26th day of July, 2012 before me personally appeared Pramodsingh Hirasingsh Thakur, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.





Notary Public

Assignment  
Assignors: Shibaji Shome et al.  
Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS  
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Docket No: 279.J64US1  
Client Ref. No. 11-122

Assignor:

(Signature): 

Name: Yinghong Yu

City/State: Shoreview, MN

Date: 7/10/2012

STATE OF Minnesota )

)ss

COUNTY OF Ramsey )

On this 10th day of July, 2012 before me personally appeared Yinghong Yu, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.





Notary Public

Assignment  
Assignors: Shibaji Shome et al.  
Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS  
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Docket No: 279.J64US1  
Client Ref. No. 11-122

Assignor:

(Signature): 

Name: Keith L. Herrmann

City/State: Minneapolis, MN

Date: 26 Jun 2012

STATE OF Minnesota )

)ss

COUNTY OF Ramsey )

On this 26th day of June, 2012 before me personally appeared Keith L. Herrmann, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.



[SEAL]



Notary Public

Assignment  
Assignors: Shibaaji Shome et al.  
Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS  
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Docket No: 279J64US1  
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**Assignor:**

(Signature): *Aaron R. McCabe*

Name: Aaron R. McCabe

City/State: Minneapolis, MN

Date: 11 July 2012

STATE OF Minnesota )

)ss

COUNTY OF Ramsey )

On this 11th day of July, 2012 before me personally appeared Aaron R. McCabe, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.



*Spencer A. Bartl*

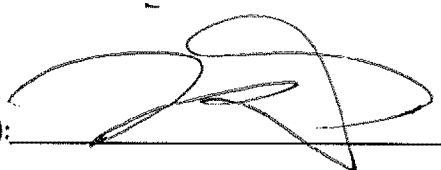
Notary Public



Assignment  
Assignors: Shibaji Shome et al.  
Title: OPTIMIZATION OF LV AND RV LEAD PLACEMENT BASED ON ELECTRICAL DELAYS  
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Docket No: 279.J64US1  
Client Ref. No. 11-122

Assignor:

(Signature): 

Name: Jiang Ding

City/State: Shoreview, MN

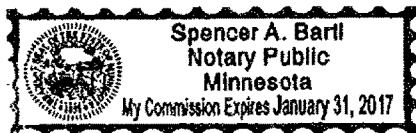
Date: 7/11/2012

STATE OF Minnesota )

)ss

COUNTY OF Ramsey )

On this 11th day of July, 2012 before me personally appeared Jiang Ding, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.





Notary Public

PATENT