503983772 08/30/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4030428

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| HUI MIN GUO | 07/26/2016 |
| SHU ZUO LOU | 07/26/2016 |
| XIAO MING CHEN | 07/26/2016 |
| GUANG JIE CAI | 07/26/2016 |
| CHUN FAI WONG | 07/26/2016 |
| YUE LI | 07/26/2016 |
| CHI PING SUN | 07/26/2016 |
| BAO TING LIU | 07/26/2016 |
| EN HUI WANG | 07/26/2016 |
| FEI XIN | 07/26/2016 |
| SHING HIN YEUNG | 07/26/2016 |
| XIU WEN YANG | 07/26/2016 |
| LI SHENG LIU | 07/26/2016 |
| YAN YUN CUI | 07/29/2016 |
| SHU JUAN HUANG | 07/26/2016 |

RECEIVING PARTY DATA

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| City: | MURTEN |
| State/Country: | SWITZERLAND |
| Postal Code: | CH-3280 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15231192 |

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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PATENT REEL: 039586 FRAME: 0623

503983772

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|-------------------------|----------------|
| NAME OF SUBMITTER: | HAINING SHU |
| SIGNATURE: | /haining shu/ |
| DATE SIGNED: | 08/30/2016 |

Total Attachments: 12

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PILLSBURY WINTHROP SHAW PITTMAN LLP

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

COMBINED DECLARATION AND ASSIGNMENT

| Title of Invention: A MAGNETIC SENSOR AND AN INTEGRATED CIRCUIT |
|--|
| As a below named inventor, I hereby declare that: |
| This declaration is directed to: The attached application; or United States application number or PCT international application number 15/231,192 filed on 8 August 2016 |
| The above-identified application was made or authorized to be made by me. |
| I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. |
| Direct all correspondence to the address associated with Customer Number |
| WHEREAS, <u>Johnson Electric S.A.</u> of <u>Freiburgstrasse 33</u> , <u>CH-3280</u> , <u>Murten Switzerland</u> , its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and in any foreign countries. |
| NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted |

Attorney Docket No. Page 2 of 6

therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional, conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of <u>Pillsbury Winthrop Shaw Pittman LLP</u> the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Attorney Docket No. Page 3 of 6

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

| LEGAL NAME OF FIRST OR SOLE INVI | ENTOR: |
|---|--|
| Hui Min Guo | |
| Signature: (Juelhain | Date: , 2 6 JUL 2016 |
| | |
| LEGAL NAME OF ADDITIONAL JOINT | INVENTOR, IF ANY: |
| Shu Zuo Lou | |
| Signature: Lou Shuzw | Date: 2 6 JUL 2016 |
| LEGAL NAME OF ADDITIONAL JOINT | INVENTOR, IF ANY: |
| Xiao Ming Chen Signature: | 2 6 JUL 2016 |
| LEGAL NAME OF ADDITIONAL JOINT | INVENTOR, IF ANY: |
| Guang Jie Cai | |
| Signature: 12 12 | Date: 2 6 JUL 2016 |
| • | |
| Additional inventors are being named on | separately numbered sheets attached hereto |

| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, I | F ANY: |
|-----------------------------------|------------|---------------------|
| Chun Fai Wong Signature: | Date: | 2 6 JUL 2016 |
| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, I | F ANY: |
| Yue Li Signature: | Date: | 2 6 JUL 2016 |
| LEGAL NAME OF ADDITIONAL JOINT II | NVENTOR, I | F ANY: |
| Chi Ping Sun Signature: | Date: | 2 6 JUL 2016 |
| LEGAL NAME OF ADDITIONAL JOINT II | NVENTOR, I | FANY: |
| Bao Ting Liu Signature: 34 3 4 | Date: | 2 6 JUL 2016 . |
| LEGAL NAME OF ADDITIONAL JOINT II | NVENTOR, I | FANY: |
| En Hui Wang Signature: | Date: | 2 6 JUL 2016 |

| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, II | FANY: |
|--|-----------------------|---------------------|
| Fei Xin | | 2 6 JUL 2016 |
| Signature: 44 15 | Date: | |
| | | |
| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, II | FANY: |
| Shing Hin Yeung | | |
| Signature: | Date: | 2 6 JUL 2016 |
| | | |
| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, II | ANY: |
| Xiu Wen Yang | | 2 E No Care |
| Signature: Alling | Date: | 2 0 JUL 2016 |
| | | |
| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, II | ANY: |
| Li Sheng Liu | | 2 6 JUL 2016 |
| Signature: Will &. | Date: | |
| THE LEAD OF A DESIGNATION OF THE PARTY OF TH | . TT TT'S TODATS - TT | 2 43 777 |
| LEGAL NAME OF ADDITIONAL JOINT II | NVENTOR, II | ANY: |
| Yan Yun Cui | | |
| Signature: | Date: | |

| LEGAL NAME OF ADDITIONAL JOINT IN | IVENTOR, IF ANY: |
|-----------------------------------|---------------------|
| Shu Juan Huang | 2 C 18 35 COMP |
| Signature: 畫森姆 | 2 6 JUL 2016 Date: |
| LEGAL NAME OF ADDITIONAL JOINT IN | IVENTOR, IF ANY: |
| | |
| Signature: | Date: |
| LEGAL NAME OF ADDITIONAL JOINT IN | NVENTOR, IF ANY: |
| Signature: | Date: |
| LEGAL NAME OF ADDITIONAL JOINT IN | IVENTOR, IF ANY: |
| Signature: | Date: |
| LEGAL NAME OF ADDITIONAL JOINT IN | IVENTOR, IF ANY: |
| Signature: | Date: |

PILLSBURY WINTHROP SHAW PITTMAN LLP

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COMBINED DECLARATION AND ASSIGNMENT

| | Title of Invention: A MAGNETIC SENSOR AND AN INTEGRATED CIRCUIT |
|----------------------------|--|
| | As a below named inventor, I hereby declare that: |
| | This declaration is directed to: |
| | ☐ The attached application; or |
| | United States application number or PCT international application number |
| filed o | |
| | The above-identified application was made or authorized to be made by me. |
| invent | I believe that I am the original inventor or an original joint inventor of a claimed tion in the application. |
| punisl both. | I hereby acknowledge that any willful false statement made in this declaration is nable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or |
| | United States application number or PCT international application numberled on The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed vention in the application. I hereby acknowledge that any willful false statement made in this declaration is unishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or |
| Assign in and | erland, its heirs, successors, legal representatives and assigns (hereinafter designated as the nee) is desirous of acquiring the entire right, title and interest in and to said invention and I to any Letters Patent(s) that may be granted therefor in the United States of America and |
| valual preser invent | NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the signed in hand paid, the receipt of which is hereby acknowledged, and other good and ple consideration, the undersigned has (have) sold, assigned and transferred, and by these its does sell, assign and transfer unto said Assignee the full and exclusive right to the said ion in the United States of America, its territories, dependencies and possessions and the right, title and interest in and to any and all Letters Patent(s) which may be granted |

Attorney Docket No. Page 2 of 6

therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

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The undersigned hereby grant(s) the law firm of <u>Pillsbury Winthrop Shaw Pittman LLP</u> the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Attorney Docket No. Page 3 of 6

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

LEGAL NAME OF FIRST OR SOLE INVENTOR:

| Signature: | Date: | |
|--------------------|--------------------------------|--|
| | | |
| LEGAL NAME OF ADDI | ΠΟΝΑL JOINT INVENTOR, IF ANY: | |
| Shu Zuo Lou | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDI | MONAL JOINT INVENTOR, IF ANY: | |
| Xiao Ming Chen | | |
| Signature: | Date: | |
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| LEGAL NAME OF ADDI | TIONAL JOINT INVENTOR, IF ANY: | |
| Guang Jie Cai | | |
| | Date: | |

Additional inventors are being named on separately numbered sheets attached hereto.

| LEGAL NAME OF ADDITIONAL JOINT I | NVENTOR, IF ANY: | |
|--|------------------|--|
| Chun Fai Wong | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT II | NVENTOR, IF ANY: | |
| Yue Li | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| Chi Ping Sun | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| Bao Ting Liu | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| En Hui Wang | | |
| Signature: | Date: | |

| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
|--|-------------------|--|
| Fei Xin | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT IN | VENTOR, IF ANY: | |
| Shing Hin Yeung | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| Xiu Wen Yang | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| Li Sheng Liu | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| Yan Yun Cui | | |
| Signature: 122 | Date: 2016. 7. 29 | |

| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
|--|-------|--|
| Shu Juan Huang | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| Signature: | Date: | |
| LEGAL NAME OF ADDITIONAL JOINT IN Signature: | | |
| Signature: | Date. | |
| LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY: | | |
| | | |
| Signature: | Date: | |

PATENT REEL: 039586 FRAME: 0636

RECORDED: 08/30/2016