503858364 06/07/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3905013

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Ming-Shiou Hsieh | 06/03/2016 |
| Chun-Yao Yang | 06/03/2016 |
| Shi-You Liu | 06/03/2016 |
| Rong-Sin Lin | 06/03/2016 |
| Han-Ting Yen | 06/03/2016 |
| Yi-Wei Chen | 06/03/2016 |
| I-Cheng Hu | 06/03/2016 |
| Yu-Shu Lin | 06/03/2016 |
| Neng-Hui Yang | 06/03/2016 |

RECEIVING PARTY DATA

| Name: | UNITED MICROELECTRONICS CORP. |
|-----------------|---|
| Street Address: | No.3, Li-Hsin Road 2, Science-Based Industrial Park |
| City: | Hsin-Chu City |
| State/Country: | TAIWAN |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15175045 |

CORRESPONDENCE DATA

Fax Number: (703)997-4517

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.

Phone: 3027291562

Email: Patent.admin.uspto.cr@naipo.com

Correspondent Name: WINSTON HSU **Address Line 1:** P.O.BOX 506

Address Line 4: MERRIFIELD, VIRGINIA 22116

| ATTORNEY DOCKET NUMBER: | NAUP2765USA |
|-------------------------|-------------|
| NAME OF SUBMITTER: | KATE YEH |
| SIGNATURE: | /KATE YEH/ |

PATENT 503858364 REEL: 038823 FRAME: 0306

| DATE SIGNED: | 06/07/2016 |
|---------------------------|------------|
| Total Attachments: 18 | |
| source=2576994#page1.tif | |
| source=2576994#page2.tif | |
| source=2576994#page3.tif | |
| source=2576994#page4.tif | |
| source=2576994#page5.tif | |
| source=2576994#page6.tif | |
| source=2576994#page7.tif | |
| source=2576994#page8.tif | |
| source=2576994#page9.tif | |
| source=2576994#page10.tif | |
| source=2576994#page11.tif | |
| source=2576994#page12.tif | |
| source=2576994#page13.tif | |
| source=2576994#page14.tif | |
| source=2576994#page15.tif | |
| source=2576994#page16.tif | |
| source=2576994#page17.tif | |
| source=2576994#page18.tif | |

PATENT REEL: 038823 FRAME: 0307

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | by declare that: | | |
|---|--|--|-------------|
| ☑ The attached application, or | | | |
| ☐ United States application nu | mber | _filed on | , or |
| ☐ PCT international application | n number | filed on | |
| The above-identified application was | s made or authorized to be made | by me. | |
| l believe that I am the original invent application. | or or an original joint inventor of a | claimed invention in the | |
| l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr | I false statement made in this decisionment of not more than five (5) | elaration is punishable o years, or both. | |
| In consideration of the payment by | UNITED MICROELECTRON CORP. | NICS having a postal add | dress of |
| No.3, Li-Hsin Road 2, Science | -Based Industrial Park, Hsi | n-Chu City 300, Taiwaı | 1, R.O.C. |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good an | o I of the sum of One Dollar (\$ 1.0 nd valuable consideration. | 0), the receipt of which is he | ereby |
| hereby sell, assign and transfer to A the entire right, title and interest in ar invention as above-identified applica invention by the above application or substitutes, or extensions thereof, an | nd to any and all improvements w tion and, in and to, all Letters Pate r any continuations, continuation-i | hich are disclosed in the ent to be obtained for said n-part, divisions, renewals. | |
| hereby covenant that no assignmer entered into which would conflict with | nt, sale, agreement or encumbran n this assignment; | ce has been or will be made | e or |
| further covenant that ASSIGNEE wand documents relating to said invention on and accessible to I and will terelated thereto and will promptly executed. | ntion and said Letters Patent and I estify as to the same in any interfe | egal equivalents as may be rence, litigation proceeding | cts |
| representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne N WINTNESS WHEREOF, I have he | olication, said invention and said L ecessary or desirable to carry out t | etters Patent and said the proposes thereof. | of signing) |
| Note: An application data sheet (PTC nventive entity, must accompany this | D/SB/14 or equivalent), including r s form. Use this form for <u>each ado</u> | naming the entire litional inventor. | |

Page 1 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

Docket No NAUP2765USA

| LEGAL NAI | WE OF INVENTOR (ASSIGNOR) | | | |
|------------|---------------------------|-------|--------------|--|
| Inventor: | Ming-Shiou Hsieh | Date: | JUN 0 3 2016 | |
| Signature: | Ming-Shiou Hsieh | | | |

Page 2 of 18

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | by declare that: | | |
|--|---|---|-------------|
| ☑ The attached application, or | | | |
| ☐ United States application nu | mber | _filed on | , or |
| ☐ PCT international application | n number | filed on | - |
| The above-identified application was | s made or authorized to be made | by me. | |
| I believe that I am the original invent application. | or or an original joint inventor of a | claimed invention in the | |
| I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr | Il false statement made in this dec isonment of not more than five (5) | claration is punishable) years, or both. | |
| In consideration of the payment by | UNITED MICROELECTRON CORP. | NICS having a postal add | dress of |
| No.3, Li-Hsin Road 2, Science | e-Based Industrial Park, Hsi | n-Chu City 300, Taiwar | ı, R.O.C. |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar | o I of the sum of One Dollar (\$ 1.0 nd valuable consideration. | 0), the receipt of which is he | ereby |
| I hereby sell, assign and transfer to a the entire right, title and interest in a invention as above-identified applica invention by the above application of substitutes, or extensions thereof, ar | nd to any and all improvements w tion and, in and to, all Letters Pat r any continuations, continuation-i | hich are disclosed in the ent to be obtained for said n-part, divisions, renewals | |
| I hereby covenant that no assignmer entered into which would conflict witl | nt, sale, agreement or encumbran h this assignment; | ce has been or will be made | or |
| I further covenant that ASSIGNEE wand documents relating to said inver known and accessible to I and will te related thereto and will promptly exe | ntion and said Letters Patent and lestify as to the same in any interfe | legal equivalents as may be rence, litigation proceeding | cts |
| representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have h | olication, said invention and said Lacessary or desirable to carry out | etters Patent and said the proposes thereof. | of signing) |
| Note: An application data sheet (PTC inventive entity, must accompany thi | D/SB/14 or equivalent), including i s form. Use this form for <u>each add</u> | naming the entire | |

Page 3 of 18

Inventor: Chun-Yao Yang

Date: JUN 0 3 2016

Signature: Chun-Yao Yang

Page 4 of 18

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | by declare that: | | |
|--|--|--|-------------|
| $\ensuremath{\square}$ The attached application, or | | | |
| ☐ United States application nu | mber | _filed on | , or |
| ☐ PCT international application | number | filed on | |
| The above-identified application was | made or authorized to be made | by me. | |
| I believe that I am the original invento application. | or or an original joint inventor of a | a claimed invention in the | |
| l hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impri | false statement made in this dec sonment of not more than five (5 | claration is punishable) years, or both. | |
| In consideration of the payment by | UNITED MICROELECTROI | NICS having a postal ac | ddress of |
| No.3, Li-Hsin Road 2, Science | -Based Industrial Park, Hs | in-Chu City 300, Taiwa | n, R.O.C |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good an | l of the sum of One Dollar (\$ 1.0 d valuable consideration. | 00), the receipt of which is h | nereby |
| hereby sell, assign and transfer to A the entire right, title and interest in ar nvention as above-identified applicat nvention by the above application or substitutes, or extensions thereof, an | d to any and all improvements with and, in and to, all Letters Patany continuations, continuation- | rhich are disclosed in the ent to be obtained for said in-part, divisions, renewals. | |
| hereby covenant that no assignment entered into which would conflict with | t, sale, agreement or encumbrar this assignment; | ice has been or will be mad | le or |
| further covenant that ASSIGNEE wi and documents relating to said inven known and accessible to I and will te related thereto and will promptly exec | tion and said Letters Patent and stify as to the same in any interfe | legal equivalents as may be rence, litigation proceeding | 9 |
| representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne N WINTNESS WHEREOF, I have he | lication, said invention and said L cessary or desirable to carry out | etters Patent and said the proposes thereof. | of signing) |
| Note: An application data sheet (PTC | n/SB/14 or equivalent), including form. Use this form for <u>each ad</u> | naming the entire ditional inventor. | |

Page 5 of 18

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Shi-You Liu

Date:

JUN 0 3 2016

Signature:

Shi-low Gin

Page 6 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | eby declare that: | | | |
|--|---|---|--|-----------------|
| ☑ The attached application, or | • | | | |
| ☐ United States application nu | ımber | filed | on | , or |
| ☐ PCT international application | n number | file | ed on | |
| The above-identified application was | s made or authorized to b | e made by me. | | - |
| I believe that I am the original invent application. | tor or an original joint inve | entor of a claime | d invention in the |) |
| I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr | Il false statement made ir risonment of not more tha | n this declaration in five (5) years, | n is punishable or both. | |
| In consideration of the payment by | UNITED MICROELE CORP. | CTRONICS | having a postal | address of |
| No.3, Li-Hsin Road 2, Science | e-Based Industrial Pa | ırk, Hsin-Chu | – ı City 300, Taiv | wan, R.O.C. |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar | o I of the sum of One Dol nd valuable consideration | lar (\$ 1.00), the | receipt of which i | s hereby |
| I hereby sell, assign and transfer to a the entire right, title and interest in a invention as above-identified applica invention by the above application of substitutes, or extensions thereof, ar | nd to any and all improve ition and, in and to, all Le r any continuations, conti | ments which are tters Patent to b nuation-in-part | e disclosed in the le obtained for sa divisions renewa | id Ils |
| I hereby covenant that no assignmerentered into which would conflict with | nt, sale, agreement or end h this assignment; | cumbrance has | been or will be m | ade or |
| I further covenant that ASSIGNEE wand documents relating to said inver known and accessible to I and will te related thereto and will promptly exe | ntion and said Letters Pat estify as to the same in an | ent and legal eq v interference. I | uivalents as may | he. |
| representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have he | olication, said invention are ecessary or desirable to c | nd said Letters F arry out the prop | Patent and said poses thereof. | ate of signing) |
| Note: An application data sheet (PTC nventive entity, must accompany this | D/SB/14 or equivalent), in s form. Use this form for (| cluding naming each additional | the entire | |

Page 7 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

| LEGAL NAI | WE OF INVENTOR (ASSIGNOR) | | | |
|------------|---------------------------|-------|--------------|--|
| Inventor: | Rong-Sin Lin | Date: | JUN 0 3 2016 | |
| Signature: | Rong-Sin Lin | | | |

Page 8 of 18

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I heret This declaration is directed to: | by declare that: | | |
|--|--|--|-------------|
| ☑ The attached application, or | | | |
| ☐ United States application nur | nber | filed on | , or |
| ☐ PCT international application | number | filed on | |
| The above-identified application was | made or authorized to be made | by me. | |
| I believe that I am the original invento application. | r or an original joint inventor of a | claimed invention in the | |
| I hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impris | false statement made in this dec sonment of not more than five (5 | plaration is punishable) years, or both. | |
| | UNITED MICROELECTRON | NICS having a postal add | lress of |
| No.3, Li-Hsin Road 2, Science- | Based Industrial Park, Hsi | n-Chu City 300, Taiwan | , R.O.C. |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good and | l of the sum of One Dollar (\$ 1.0 I valuable consideration. | 0), the receipt of which is he | reby |
| I hereby sell, assign and transfer to A the entire right, title and interest in an invention as above-identified applicati invention by the above application or substitutes, or extensions thereof, and | d to any and all improvements w on and, in and to, all Letters Pat any continuations, continuation-i | hich are disclosed in the ent to be obtained for said in-part, divisions, renewals | EE |
| I hereby covenant that no assignment entered into which would conflict with | s, sale, agreement or encumbran this assignment; | ce has been or will be made | or |
| I further covenant that ASSIGNEE wil and documents relating to said invent known and accessible to I and will tes related thereto and will promptly exec | ion and said Letters Patent and l tify as to the same in any interfe | legal equivalents as may be rence. litigation proceeding | ts |
| representatives any and all papers, in maintain, issue and enforce said appli equivalents thereof which may be nec IN WINTNESS WHEREOF, I have he | cation, said invention and said Lessary or desirable to carry out | etters Patent and said the proposes thereof. | of signing) |
| Note: An application data sheet (PTO inventive entity, must accompany this | /SB/14 or equivalent), including i | naming the entire litional inventor. | |

Page 9 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Han-Ting Yen

Date:

JUN 0 3 2016

Signature:

君友海延(Han-Ting, Yen)

Page 10 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I hen This declaration is directed to: | eby declare that: | | |
|--|---|--|-------------|
| ☑ The attached application, or | r | | |
| ☐ United States application no | umber | _filed on | , or |
| ☐ PCT international application | n number | filed on | |
| The above-identified application wa | s made or authorized to be made | by me. | |
| I believe that I am the original inven application. | tor or an original joint inventor of a | a claimed invention in the | |
| I hereby acknowledge that any willfi under18 U.S.C. 1001 by fine or imp | ul false statement made in this dec risonment of not more than five (5 | claration is punishable) years, or both. | |
| In consideration of the payment by | UNITED MICROELECTRON CORP. | NICS having a postal add | dress of |
| No.3, Li-Hsin Road 2, Scienc | e-Based Industrial Park, Hsi | in-Chu City 300, Taiwar | 1, R.O.C. |
| (referred to as "ASSIGNEE"below) t acknowledged, andfor other good a | o I of the sum of One Dollar (\$ 1.0 nd valuable consideration. | 00), the receipt of which is he | ereby |
| I hereby sell, assign and transfer to the entire right, title and interest in a invention as above-identified applica invention by the above application o substitutes, or extensions thereof, a | nd to any and all improvements w ation and, in and to, all Letters Pat r any continuations, continuation- | rhich are disclosed in the ent to be obtained for said in-part, divisions, renewals. | |
| I hereby covenant that no assignme entered into which would conflict wit | nt, sale, agreement or encumbran h this assignment; | ice has been or will be made | or or |
| I further covenant that ASSIGNEE wand documents relating to said inver known and accessible to I and will to related thereto and will promptly exc | ntion and said Letters Patent and lestify as to the same in any interfe | legal equivalents as may be rence. litigation proceeding | cts |
| representatives any and all papers, maintain, issue and enforce said app equivalents thereof which may be no IN WINTNESS WHEREOF, I have h | olication, said invention and said Lecessary or desirable to carry out | etters Patent and said the proposes thereof. | of signing) |
| Note: An application data sheet (PT nventive entity, must accompany th | O/SB/14 or equivalent), including is form. Use this form for <u>each add</u> | naming the entire | |

Page 11 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

Docket No NAUP2765USA

| LEGAL NAME OF INVENTOR(ASSIGNOR) | | | | |
|----------------------------------|-------------|-------|--------------|--|
| Inventor: | Yi-Wei Chen | Date: | JUN 0 3 2016 | |
| Signature: | Ti-Wei Chen | | | |

Page 12 of 18

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | by declare that: | | |
|---|---|---|------------|
| ☑ The attached application, or | | | |
| ☐ United States application nu | ımber | _filed on, | , or |
| ☐ PCT international application | n number | filed on | |
| The above-identified application was | s made or authorized to be made | by me. | |
| believe that I am the original invent application. | tor or an original joint inventor of a | a claimed invention in the | , |
| hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr | Il false statement made in this dec risonment of not more than five (5 | claration is punishable) years, or both. | |
| n consideration of the payment by | UNITED MICROELECTROICORP. | NICS having a postal add | ress of |
| No.3, Li-Hsin Road 2, Science | e-Based Industrial Park, Hs | in-Chu City 300, Taiwan | , R.O.C. |
| referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar | o I of the sum of One Dollar (\$ 1.0 and valuable consideration. | 00), the receipt of which is her | eby |
| hereby sell, assign and transfer to a he entire right, title and interest in a nvention as above-identified applica nvention by the above application of substitutes, or extensions thereof, ar | nd to any and all improvements w ition and, in and to, all Letters Pat r any continuations, continuation- | which are disclosed in the tent to be obtained for said in-part, divisions, renewals. | EE |
| hereby covenant that no assignment entered into which would conflict with | nt, sale, agreement or encumbrar h this assignment; | ice has been or will be made | or |
| further covenant that ASSIGNEE wand documents relating to said inver snown and accessible to I and will te elated thereto and will promptly exe | ntion and said Letters Patent and estify as to the same in any interfe | legal equivalents as may be rence, litigation proceeding | ts |
| epresentatives any and all papers, i naintain, issue and enforce said app quivalents thereof which may be ne N WINTNESS WHEREOF, I have h | olication, said invention and said Lecessary or desirable to carry out | etters Patent and said the proposes thereof. | f signing) |
| lote: An application data sheet (PTC | D/SB/14 or equivalent), including s form. Use this form for <u>each add</u> | naming the entire ditional inventor. | |

Page 13 of 18

Docket No NAUP2765USA

| LEGAL NAME OF INVENTOR(ASSIGNOR) | | | | | |
|----------------------------------|------------|----|------|-------|---------------|
| Inventor: | I-Cheng Hu | D | ate: | JUN 0 | 3 2016 |
| Signature: | I - Chang | Hu | | | |
| | J | | | | |

Page 14 of 18

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | by declare that: | | |
|---|---|--|---------------|
| ☑ The attached application, or | | | |
| ☐ United States application nu | mber | filed on | , or |
| ☐ PCT international application | n number | filed on | |
| The above-identified application was | s made or authorized to be made | le by me. | |
| I believe that I am the original invent application. | or or an original joint inventor o | of a claimed invention in the | |
| I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impri | I false statement made in this o isonment of not more than five | declaration is punishable (5) years, or both. | |
| In consideration of the payment by | UNITED MICROELECTRO | ONICS having a postal ad | dress of |
| No.3, Li-Hsin Road 2, Science | -Based Industrial Park, H | lsin-Chu City 300, Taiwaı | n, R.O.C. |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good an | o I of the sum of One Dollar (\$ ' id valuable consideration. | 1.00), the receipt of which is he | er eby |
| hereby sell, assign and transfer to A the entire right, title and interest in ar nvention as above-identified applicat nvention by the above application or substitutes, or extensions thereof, an | nd to any and all improvements tion and, in and to, all Letters F rany continuations, continuatio | which are disclosed in the Patent to be obtained for said n-in-part, divisions, renewals | NEE |
| hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment; | | | |
| further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to I and will testify as to the same in any interference, litigation proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal | | | |
| representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne N WINTNESS WHEREOF, I have he | lication, said invention and said cessary or desirable to carry or | d Letters Patent and said ut the proposes thereof. | of signing) |
| Note: An application data sheet (PTC nventive entity, must accompany this | D/SB/14 or equivalent), includin s form. Use this form for <u>each a</u> | g naming the entire additional inventor. | |

Page 15 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

| LEGAL NAME OF INVENTOR(ASSIGNOR) | | | | |
|----------------------------------|------------|-------|--------------|--|
| Inventor: | Yu-Shu Lin | Date: | JUN 0 3 2016 | |
| Signature: | Ya-Shu | Lin | | |

Page 16 of 18

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

Title of Invention: SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

| As the below named inventor, I here This declaration is directed to: | by declare that: | | |
|--|---|--|----------|
| ☑ The attached application, or | | | |
| ☐ United States application nu | ımber | _filed on, | or |
| ☐ PCT international application | n number | filed on | |
| The above-identified application was | s made or authorized to be made | by me. | |
| I believe that I am the original invent application. | tor or an original joint inventor of a | claimed invention in the | |
| l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr | Il false statement made in this dec risonment of not more than five (5) | elaration is punishable ryears, or both. | |
| In consideration of the payment by | UNITED MICROELECTRON CORP. | NICS having a postal addr | ess of |
| No.3, Li-Hsin Road 2, Science | e-Based Industrial Park, Hsi | n-Chu City 300, Taiwan, | R.O.C. |
| (referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar | o I of the sum of One Dollar (\$ 1.0 nd valuable consideration. | 0), the receipt of which is here | ∍by |
| hereby sell, assign and transfer to a the entire right, title and interest in a nvention as above-identified applica nvention by the above application of substitutes, or extensions thereof, ar | nd to any and all improvements w ition and, in and to, all Letters Pati r any continuations, continuation-i | hich are disclosed in the ent to be obtained for said n-part, divisions, renewals. | Ε. |
| hereby covenant that no assignment entered into which would conflict with | nt, sale, agreement or encumbran h this assignment; | ce has been or will be made o | ÞΓ |
| further covenant that ASSIGNEE wand documents relating to said inver known and accessible to I and will te related thereto and will promptly exe | ntion and said Letters Patent and I estify as to the same in any interfe | egal equivalents as may be rence, litigation proceeding | 3 |
| epresentatives any and all papers, i naintain, issue and enforce said app equivalents thereof which may be ne N WINTNESS WHEREOF, I have h | olication, said invention and said L ecessary or desirable to carry out t | etters Patent and said | signing) |
| Note: An application data sheet (PTC | D/SB/14 or equivalent), including r s form. Use this form for <u>each add</u> | naming the entire litional inventor. | |

Page 17 of 18

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Neng-Hui Yang

Date:

JUN 0 3 2016

Signature:

Page 18 of 18

F#NPO-P0002E-US1201 DSB0-105U009324

NPO#NAU-P2765-USA:0 CUST#UMCD-2016-0119

RECORDED: 06/07/2016

PATENT REEL: 038823 FRAME: 0325