PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4994965

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Yi-Wei Chen	05/31/2018
Hsu-Yang Wang	05/31/2018
Chun-Chieh Chiu	05/31/2018
Shih-Fang Tzou	05/31/2018

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
Name:	FUJIAN JINHUA INTEGRATED CIRCUIT CO., LTD.
Street Address:	NO.88, LIANHUA AVENUE, INTEGRATED CIRCUIT SCIENCE PARK, JINJIANG CITY
City:	QUANZHOU CITY, FUJIAN PROVINCE
State/Country:	CHINA

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16001949

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: 5F., NO.389, FUHE RD., YONGHE DIST.,
Address Line 4: NEW TAIPEI CITY, TAIWAN

ATTORNEY DOCKET NUMBER:	NAUP3259USA
NAME OF SUBMITTER:	SIBYL YU
SIGNATURE:	/SIBYL YU/
DATE SIGNED:	06/07/2018

Total Attachments: 8
source=3171621#page1.tif
source=3171621#page2.tif
source=3171621#page3.tif
source=3171621#page4.tif
source=3171621#page5.tif
source=3171621#page6.tif
source=3171621#page7.tif
source=3171621#page8.tif

COMBINE DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention:
METHOD OF FORMING SEMICONDUCTOR MEMORY DEVICE

As the below named inventor, I hereby declare that:
This declaration is directed to:

☑ The attached application, or

☐ United States application number ________ 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 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 under18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In consideration of the payment by **UNITED MICROELECTRONICS CORP.** having a postal address of

No.3, Li-Hsin Road 2, Science-Based Industrial Park, Hsin-Chu City 300, Taiwan, R.O.C.

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

In consideration of the payment by **Fujian Jinhua Integrated Circuit Co., Ltd.** having a postal address of

No.88, Lianhua Avenue, Integrated Circuit Science Park, Jinjiang City, Quanzhou City, Fujian Province 362200, P.R.C.

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.

I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

I 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, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the proposes thereof.
IN WITNESS WHEREOF, I have hereunto set hand and seal this MAY 3 1 2018 (Date of signing)

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use this form for each additional inventor.

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor: **Yi-Wei Chen** Date: MAY 3 1 2018

Signature: Yi-Wei Chen

COMBINE DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention:
METHOD OF FORMING SEMICONDUCTOR MEMORY DEVICE

As the below named inventor, I hereby declare that:
This declaration is directed to:

☑ The attached application, or

☐ United States application number ________________ 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 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 under18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In consideration of the payment by **UNITED MICROELECTRONICS CORP.** having a postal address of **No.3, Li-Hsin Road 2, Science-Based Industrial Park, Hsin-Chu City 300, Taiwan, R.O.C.**

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

In consideration of the payment by **Fujian Jinhua Integrated Circuit Co., Ltd.** having a postal address of **No.88, Lianhua Avenue, Integrated Circuit Science Park, Jinjiang City, Quanzhou City, Fujian Province 362200, P.R.C.**

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.

I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

I 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, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the proposes thereof.
IN WITNESS WHEREOF, I have hereunto set hand and seal this MAY 3 1 2018 (Date of signing)

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use this form for each additional inventor.

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor: **Hsu-Yang Wang** Date: MAY 3 1 2018

Signature: Hsu-Yang Wang

COMBINE DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention:
METHOD OF FORMING SEMICONDUCTOR MEMORY DEVICE

As the below named inventor, I hereby declare that:
This declaration is directed to:

☑ The attached application, or

☐ United States application number ________________ 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 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 under18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In consideration of the payment by **UNITED MICROELECTRONICS CORP.** having a postal address of

No.3, Li-Hsin Road 2, Science-Based Industrial Park, Hsin-Chu City 300, Taiwan, R.O.C.

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

In consideration of the payment by **Fujian Jinhua Integrated Circuit Co., Ltd.** having a postal address of

No.88, Lianhua Avenue, Integrated Circuit Science Park, Jinjiang City, Quanzhou City, Fujian Province 362200, P.R.C.

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.

I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

I 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, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the proposes thereof. IN WITNESS WHEREOF, I have hereunto set hand and seal this MAY 3 1 2018 (Date of signing)

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use this form for each additional inventor.

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor: **Chun-Chieh Chiu** Date: MAY 3 1 2018

Signature: Chun-Chieh Chiu

COMBINE DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention:
METHOD OF FORMING SEMICONDUCTOR MEMORY DEVICE

As the below named inventor, I hereby declare that:
This declaration is directed to:

☑ The attached application, or

☐ United States application number ________________ 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 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 under18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In consideration of the payment by **UNITED MICROELECTRONICS CORP.** having a postal address of

No.3, Li-Hsin Road 2, Science-Based Industrial Park, Hsin-Chu City 300, Taiwan, R.O.C.

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

In consideration of the payment by **Fujian Jinhua Integrated Circuit Co., Ltd.** having a postal address of

No.88, Lianhua Avenue, Integrated Circuit Science Park, Jinjiang City, Quanzhou City, Fujian Province 362200, P.R.C.

(referred to as "ASSIGNEE"below) to I of the sum of One Dollar ($ 1.00), the receipt of which is hereby acknowledged, andfor other good and valuable consideration.

I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.

I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

I 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, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the proposes thereof.
IN WITNESS WHEREOF, I have hereunto set hand and seal this MAY 31 2018 (Date of signing)

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use this form for each additional inventor.

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor: **Shih-Fang Tzou** Date: MAY 31 2018

Signature: Shih-Fang Tzou