504829147 03/21/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4875884

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Feng-Yi Chang	03/14/2018
Chien-Ting Ho	03/14/2018
Shih-Fang Tzou	03/14/2018
Fu-Che Lee	03/14/2018

RECEIVING PARTY DATA

Name:	UNITED MICROELECTRONICS CORP.				
Street Address:	No.3, Li-Hsin Road 2, Science-Based Industrial Park				
City:	Isin-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:	15856024

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:	NAUP2910USA
NAME OF SUBMITTER:	SIBYL YU
SIGNATURE:	/SIBYL YU/
DATE SIGNED:	03/21/2018

PATENT 504829147 REEL: 045296 FRAME: 0951

Total Attachments: 8	
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PATENT REEL: 045296 FRAME: 0952

Title of Invention:

MANUFACTURING METHOD OF SEMICONDUCTOR MEMORY DEVICE

As the below named inventor, I here This declaration is directed to:	by decl	are that:					
☐ The attached application, or	•						
☑ United States application nu	ımber	15/856,024	THE SHOP IS NOT THE SHOP IS NO	filed on	12/27/2017	·,	or
☐ PCT international applicatio	n numl	ber		filed	on		
The above-identified application was	made (or authorized to I	be made l	oy me.			
I believe that I am the original invent application.	or or an	original joint inv	entor of a	claimed i	nvention in the	Э	
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	l false s isonme	statement made in the statement made in the statement made in the statement in the statemen	n this dec an five (5)	laration is years, or	punishable both.		
In consideration of the payment by	UNITE	ED MICROELE P.	ECTRON	IICS h	aving a posta	l addr	ess of
No.3, Li-Hsin Road 2, Science	-Base	d Industrial P	ark, Hsi	n-Chu C	ity 300, Tai	wan,	R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the	e sum of One Do ble consideration	llar (\$ 1.0 n.	0), the red	ceipt of which	is her	eby
In consideration of the payment by	Fujiar Co., L	n Jinhua Integ .td.	rated C	ircuit h	aving a posta	l addr	ess of
No.88, Lianhua Avenue, Integ Fujian Province 362200, P.R.0	rated (Circuit Scienc	e Park,	Jinjiang	City, Quan	zhou	ı City,
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the	e sum of One Do ble consideration	llar (\$ 1.0 n.	0), the red	eipt of which	is her	eby
I hereby sell, assign and transfer to a the entire right, title and interest in an invention as above-identified applica invention by the above application of substitutes, or extensions thereof, ar	nd to an tion and r any co	ny and all improve d, in and to, all Le entinuations, cont	ements wi etters Pate inuation-i	hich are d ent to be d n-part, div	isclosed in the obtained for sa isions, renewa	e aid als.	Ē
I hereby covenant that no assignmer entered into which would conflict with	nt, sale, n this as	agreement or er ssignment;	ncumbran	ce has be	en or will be m	nade (or
and documents relating to said inver known and accessible to I and will te	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						

Page 1 of 8

NPO#NAU-P2910-USA:0 CUST#UMCF-2016-0080

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

MAR 1 A 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 <u>each additional inventor</u>.

LEGAL NAME OF INVENTOR(ASSIGNOR)						
Inventor:	Feng-Yi Chang	Date:	MAR 1 4 2018			
Signature:	Feng-Yi Chang					

Page 2 of 8

NPO#NAU-P2910-USA:0 CUST#UMCF-2016-0080

Title of Invention:

MANUFACTURING METHOD OF SEMICONDUCTOR MEMORY DEVICE

As the below named inventor, I here This declaration is directed to:	by decla	are that:				
☐ The attached application, or						
☑ United States application nu	ımber	15/856,024	filed on 12/27/2017	, or		
☐ PCT international applicatio	n numl	oer	filed on	-		
The above-identified application was	made o	or authorized to be r	made by me.			
I believe that I am the original invent application.	or or an	original joint invent	or of a claimed invention in the			
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	l faise s isonmer	tatement made in th nt of not more than f	is declaration is punishable ive (5) years, or both.			
In consideration of the payment by	UNITE CORP	ED MICROELECT	FRONICS having a postal add	dress of		
No.3, Li-Hsin Road 2, Science	-Base	d Industrial Park	, Hsin-Chu City 300, Taiwar	n, R.O.C.		
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an	I of the	e sum of One Dollar ble consideration.	(\$ 1.00), the receipt of which is he	ereby		
	Fujian Co., L		ed Circuit having a postal add	lress of		
No.88, Lianhua Avenue, Integ Fujian Province 362200, P.R.C	rated (Circuit Science F	Park, Jinjiang City, Quanzho	ou City,		
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an	I of the	sum of One Dollar ble consideration.	(\$ 1.00), the receipt of which is he	ereby		
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						

Page 3 of 8

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LEGAL NAME OF INVENTOR(ASSIGNOR)

inventor:

Chien-Ting Ho

Date:

MAR 1 4 2018

Signature:

Chien-ling

Page 4 of 8

Title of Invention:

MANUFACTURING METHOD OF SEMICONDUCTOR MEMORY DEVICE

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☑ United States application nu	mber	15/856,024		filed on	12/27/2017	7,	or
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The above-identified application was	made c	or authorized to	be made l	by me.			
I believe that I am the original invento application.	or or an	original joint inv	entor of a	claimed in	nvention in th	е	
I hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impris	false st sonmen	tatement made at of not more th	in this dec an five (5)	laration is years, or	punishable both.		
In consideration of the payment by	UNITE CORP	D MICROELI	ECTRON	IICS h	aving a posta	ıl addr	ess of
No.3, Li-Hsin Road 2, Science	-Based	d Industrial P	ark, Hsi	n-Chu C	ity 300, Tai	wan,	R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good and	I of the d valuat	sum of One Do ole consideration	ollar (\$ 1.0 n.	0), the rec	eipt of which	is her	eby
In consideration of the payment by	Fujian Co., Li	Jinhua Integ td.	grated Ci	ircuit h	aving a posta	l addr	ess of
No.88, Lianhua Avenue, Integr Fujian Province 362200, P.R.C	ated C	Circuit Scienc	e Park,	Jinjiang	City, Quan	zhou	ı City,
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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 ion and any cor	/ and all improve , in and to, all Le ntinuations, cont	ements wh etters Pate tinuation-ir	nich are di ent to be o n-part divi	sclosed in the btained for sa sions, renewa	e aid als	E
I hereby covenant that no assignment entered into which would conflict with	t, sale, a this ass	agreement or er signment;	ncumbrand	ce has bee	en or will be m	nade d	or
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							

Page 5 of 8

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LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Shih-Fang Tzou

Date:

MAR 1 4 2018

Signature:

Shih- Tang Tzon

Page 6 of 8

F#NPO-P0002E-US1201 DSB0-106U036420

NPO#NAU-P2910-USA:0 CUST#UMCF-2016-0080

Title of Invention:

MANUFACTURING METHOD OF SEMICONDUCTOR MEMORY DEVICE

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☐ The attached application, or						
☑ United States application nu	mber	15/856,024	filed on	12/27/2017	, or	
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I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impri	l false s sonme	tatement made in	this declaration is n five (5) years, or	punishable both.		
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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:	Fu-Che Lee	Date:	MAR 1 4 2018			
Signature:	Fu-Che Lee					

NPO#NAU-P2910-USA:0 CUST#UMCF-2016-0080 Page 8 of 8

F#NPO-P0002E-US1201 DSB0-106U036420

PATENT REEL: 045296 FRAME: 0960