#### 504789984 02/22/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT4836716

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Chih-Kai Hsu	01/30/2018
Ssu-I Fu	01/31/2018
Chun-Ya Chiu	01/31/2018
Chi-Ting Wu	01/31/2018
Chin-Hung Chen	01/31/2018
Yu-Hsiang Lin	01/31/2018

#### **RECEIVING PARTY DATA**

Name:	UNITED MICROELECTRONICS CORP.	
Street Address:	et 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:	15873838

#### **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

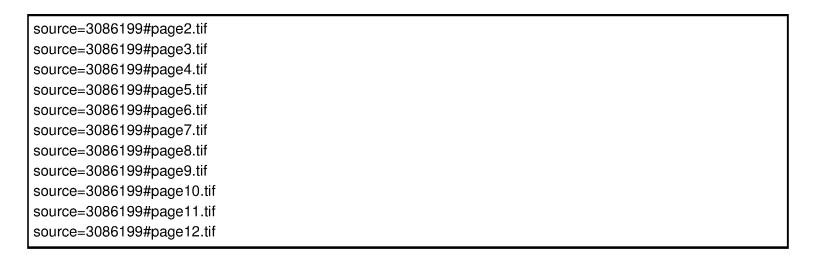
Address Line 1: 5F., NO.389, FUHE RD., YONGHE DIST.,

Address Line 4: NEW TAIPEI CITY, TAIWAN

ATTORNEY DOCKET NUMBER:	NAUP3226USA
NAME OF SUBMITTER:	SIBYL YU
SIGNATURE:	/SIBYL YU/
DATE SIGNED:	02/22/2018

**Total Attachments: 12** source=3086199#page1.tif

PATENT 504789984 REEL: 045011 FRAME: 0619



PATENT REEL: 045011 FRAME: 0620

#### Title of Invention:

### SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

As the below named inventor, I herel This declaration is directed to:	by decla	are that:			
☐ The attached application, or					
☑ United States application nu	mber	15/873,838	filed o	on <u>01/17/2018</u>	_, or
☐ PCT international application	n numl	oer	file	d on	
The above-identified application was	made o	or authorized to be r	nade by me.		
I believe that I am the original inventorapplication.	or or an	original joint invent	or of a claime	d invention in the	
I hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impri					
	UNITE	ED MICROELECT	ronics	having a postal ad	dress of
No.3, Li-Hsin Road 2, Science	-Base	d Industrial Park	, Hsin-Chu	City 300, Taiwa	ın, R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an	l of the	e sum of One Dollar ble consideration.	(\$ 1.00), the i	eceipt of which is h	nereby
I hereby sell, assign and transfer to A the entire right, title and interest in ar invention as above-identified application or substitutes, or extensions thereof, and	nd to an tion and any co	y and all improvement, in and to, all Lette ntinuations, continuations,	ents which are rs Patent to be ation-in-part, o	e disclosed in the e obtained for said divisions, renewals,	
I hereby covenant that no assignment entered into which would conflict with	it, sale, i this as	agreement or encur signment;	mbrance has	peen or will be mad	le or
I 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 stify as	d said Letters Paten to the same in any i	t and legal eq nterference, li	uivalents as may be	е
representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne IN WITNESS WHEREOF, I have her	lication cessary	, said invention and or desirable to carr	said Letters F y out the pror	Patent and said poses thereof.	of signing)
Note: An application data sheet (PTC inventive entity, must accompany this	D/SB/14 s form.	or equivalent), inclu Use this form for <u>ea</u>	uding naming ch additional i	the entire nventor.	

Page 1 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

LEGAL NAI	ME OF INVENTOR(ASSIGNOR)			
Inventor:	Chih-Kai Hsu	Date:	JAN 3 0 2018	
Signature:	Chih-Kai H	SU		

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NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

#### Title of Invention:

### SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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☐ PCT international application numberfiled 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 having a postal address of CORP.
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(referred to as "ASSIGNEE"below) to I of the sum of One Dollar (\$ 1.00), the receipt of which is hereby acknowledged, and for 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
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.

Page 3 of 12

LEGAL NAI	ME OF INVENTOR(A	(SSIGNOR)			
Inventor:	Ssu-l Fu		Date:	JAN 3 1 2018	
Signature:	S= I	Fu			

Page 4 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

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I hereby covenant that no assignmer entered into which would conflict with	it, sale, i this as	agreement or encu ssignment;	mbrance has	been or will be mad	de or
I further covenant that ASSIGNEE w and documents relating to said inven known and accessible to I and will te related thereto and will promptly exec	tion and stify as	d said Letters Paten to the same in any i	t and legal ed interference, l	quivalents as may b litigation proceeding	e
representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne IN WITNESS WHEREOF, I have her	lication cessary	, said invention and y or desirable to carr	said Letters F y out the pro	Patent and said poses thereof.	of signing)
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Page 5 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

LEGAL NAME OF INVENTOR(ASSIGNOR)					
Inventor:	Chun-Ya Chiu	Date:	JAN 3 1 2018		
Signature:	_ Chun-la Chiu			_	

Page 6 of 12

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I further covenant that ASSIGNEE will, upon and documents relating to said invention and known and accessible to I and will testify as to related thereto and will promptly execute and	I said Letters Patent and le to the same in any interfer	egal equivalents as may be ence. litigation proceeding
representatives any and all papers, instrume maintain, issue and enforce said application, equivalents thereof which may be necessary IN WITNESS WHEREOF, I have hereunto se	said invention and said Le or desirable to carry out the	etters Patent and said
Note: An application data sheet (PTO/SB/14 inventive entity, must accompany this form. U	or equivalent), including n Jse this form for each add	aming the entire

Page 7 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

LEGAL NAME OF INVENTOR(ASSIGNOR)						
Inventor:	Chi-Ting Wu	Date:	JAN 3 1 2018			
Signature:	Chi-Ting Wu.			-		

Page 8 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

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Page 9 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

LEGAL NAME OF INVENTOR(ASSIGNOR)						
Inventor:	Chin-Hung Chen	Date:	JAN 3 1 2018			
Signature:	Chin-Hung Chen					

Page 10 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695 F#NPO-P0002E-US1201 DSB0-107U001277

PATENT REEL: 045011 FRAME: 0630

#### Title of Invention:

### SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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$\square$ The attached application, or		
United States application number	15/873,838	_filed on _01/17/2018 , or
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I hereby covenant that no assignment, sale, a entered into which would conflict with this as	agreement or encumbrai signment;	nce has been or will be made or
I further covenant that ASSIGNEE will, upon and documents relating to said invention and known and accessible to I and will testify as t related thereto and will promptly execute and	said Letters Patent and o the same in any interfe	legal equivalents as may be erence, litigation proceeding
representatives any and all papers, instrumen maintain, issue and enforce said application, equivalents thereof which may be necessary N WITNESS WHEREOF, I have hereunto se	said invention and said or desirable to carry out	Letters Patent and said
Note: An application data sheet (PTO/SB/14	or equivalent), including	naming the entire

Page 11 of 12

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

LEGAL NAME OF INVENTOR(ASSIGNOR)						
Inventor:	Yu-Hsiang Lin	Date:	JAN 3 1 20	18		
Signature:	不大流行行	Tu-	-Hsiang L	.în		

Page 12 of 12

F#NPO-P0002E-US1201 DSB0-107U001277

NPO#NAU-P3226-USA:0 CUST#UMCD-2017-0695

**RECORDED: 02/22/2018** 

PATENT REEL: 045011 FRAME: 0632