11/12/2015 503567694

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Ming-Yueh Tsai	09/16/2015
Jia-Feng Fang	09/16/2015
Yi-Wei Chen	09/16/2015
Jing-Yin Jhang	09/16/2015
Rung-Yuan Lee	11/11/2015
Chen-Yi Weng	09/16/2015
Wei-Jen Wu	09/16/2015

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:	14940120

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.

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

Address Line 4: MERRIFIELD, VIRGINIA 22116

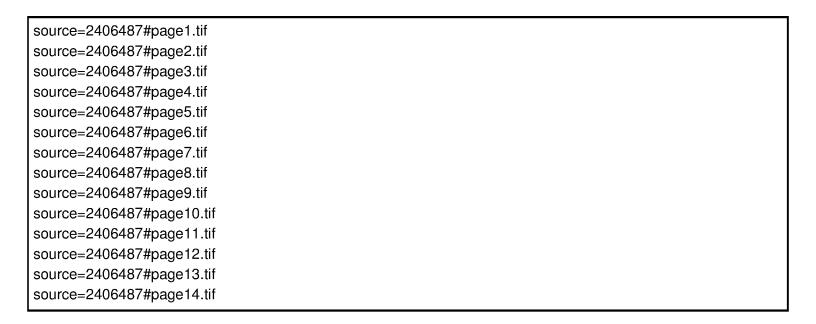
ATTORNEY DOCKET NUMBER:	NAUP2598USA
NAME OF SUBMITTER:	SIBYL YU
SIGNATURE:	/SIBYL YU/
DATE SIGNED:	11/12/2015

Total Attachments: 14

PATENT REEL: 037029 FRAME: 0215

EPAS ID: PAT3614321

503567694



PATENT REEL: 037029 FRAME: 0216

Title of Invention: SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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 o	n	_, or
☐ PCT international application	number	file	d on	***************************************
The above-identified application was	made or authorized to be made	e by me.		
I believe that I am the original inventapplication.	or or an original joint inventor of	a claime	d invention in the	
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr				
In consideration of the payment by	UNITED MICROELECTRO	NICS	having a postal ad	dress of
No.3, Li-Hsin Road 2, Science	-Based Industrial Park, H	sin-Chu	City 300, Taiwa	n, R.O.C
(referred to as "ASSIGNEE" below) to acknowledged, and for other good an	o I of the sum of One Dollar (\$ 1 id valuable consideration.	.00), the i	receipt of which is h	ereby
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 or substitutes, or extensions thereof, ar	nd to any and all improvements tion and, in and to, all Letters Pa any continuations, continuation	which are atent to be n-in-part, o	disclosed in the e obtained for said divisions, renewals,	•
I hereby covenant that no assignment entered into which would conflict with		ance has i	been or will be made	e or
I further covenant that ASSIGNEE w and documents relating to said inver known and accessible to I and will te related thereto and will promptly exe	ition and said Letters Patent and stify as to the same in any inter	d legal eq ference, li	uivalents as may be itigation proceeding	
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be no IN WINTNESS WHEREOF, I have h	olication, said invention and said deessary or desirable to carry ou	Letters F	Patent and said poses thereof.	of signing
Note: An application data sheet (PTC inventive entity, must accompany thi				

Page 1 of 14

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Ming-Yueh Tsai

Date:

SEP 1 6 2015

Signature:

蔡明岳 Ming tuch Tsai

Page 2 of 14

F#NPO-P0002E-US1201

NPO#NAU-P2598-USA:0

Title of Invention:

SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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	number	file	ed on	
The above-identified application was	made or authorize	d to be made by me.		
I believe that I am the original inventionapplication.	or or an original joir	nt inventor of a claim	ed invention in the	
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impri				
In consideration of the payment by	UNITED MICRO	ELECTRONICS	having a postal a	iddress of
No.3, Li-Hsin Road 2, Science	-Based Industri	al Park, Hsin-Ch	u City 300, Taiw	an, R.O.C.
(referred to as "ASSIGNEE" below) to acknowledged, and for other good and I hereby sell, assign and transfer to A the entire right, title and interest in an invention as above-identified application or substitutes, or extensions thereof, and I hereby covenant that no assignment entered into which would conflict with	ASSIGNEE and the nd to any and all im tion and, in and to, any continuations, and as to Letters Patent, sale, agreement	successors and ass provements which ar all Letters Patent to I continuation-in-part, ent any reissue or re-	ignees of the ASSIC re disclosed in the be obtained for said divisions, renewals -examination therec	GNEE I s, of.
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 exe	ill, upon its request, ition and said Letter stify as to the same	rs Patent and legal e in any interference,	quivalents as may t litigation proceedin	oe
representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have he	lication, said invent cessary or desirabl	ion and said Letters e to carry out the pro	Patent and said poses thereof.	e of signing)
Note: An application data sheet (PTC inventive entity, must accompany this	D/SB/14 or equivale s form. Use this for	nt), including naminç n for <u>each additional</u>	the entire inventor.	

Page 3 of 14

LEGAL NAME OF INVENTOR(ASSIGNOR)				
Inventor:	Jia-Feng Fang	Date:	SEP 1 6 2015	
Signature:	Jia Feng Fay			

Page 4 of 14

Title of Invention:

SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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	number	filed on	
The above-identified application was	made or authorized to be made t	oy me.	
I believe that I am the original inventapplication.	or or an original joint inventor of a	claimed inver	ntion in the
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impri	I false statement made in this dec isonment of not more than five (5)	laration is pun years, or botl	iishable n.
In consideration of the payment by	UNITED MICROELECTRON CORP.	IICS havin	ng a postal address 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 an	o I of the sum of One Dollar (\$ 1.0 do not be a sum of One Dollar (\$ 1.0 do not be a sum of the Dollar (\$ 1.0 do not be a	0), the receipt	of which is hereby
I hereby sell, assign and transfer to A the entire right, title and interest in an invention as above-identified application or substitutes, or extensions thereof, an	nd to any and all improvements wh tion and, in and to, all Letters Pate any continuations, continuation-in	nich are disclo ent to be obtai n-part, division	sed in the ned for said ns. renewals
I hereby covenant that no assignment entered into which would conflict with	nt, sale, agreement or encumbrand n this assignment;	ce has been o	r will be made 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 said Letters Patent and le stify as to the same in any interfer	egal equivaler ence, litigatio	nts as mav be
representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have he	lication, said invention and said Locessary or desirable to carry out t	etters Patent a	and said hereof.
Note: An application data sheet (PTC inventive entity, must accompany this	D/SB/14 or equivalent), including n s form. Use this form for <u>each add</u>	aming the ent	tire vr.

Page 5 of 14

Inventor: Yi-Wei Chen Date: SEP 1 6 2015

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NPO#NAU-P2598-USA:0 CUST#UMCD-2015-0510

Title of Invention: SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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	number	filed on	
The above-identified application was	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	a claimed invention in th	1е
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	I false statement made in this de isonment of not more than five (5	claration is punishable i) years, or both.	
In consideration of the payment by	UNITED MICROELECTROICORP.	NICS having a posta	al address of
No.3, Li-Hsin Road 2, Science	-Based Industrial Park, Hs	in-Chu City 300, Ta	iwan, R.O.C
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an	I of the sum of One Dollar (\$ 1.0		
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, an	nd to any and all improvements w tion and, in and to, all Letters Pat any continuations, continuation-	hich are disclosed in the tent to be obtained for some in-part, divisions, renew	e aid als
I hereby covenant that no assignment entered into which would conflict with	it, sale, agreement or encumbrar i this assignment;	nce has been or will be r	made 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 said Letters Patent and stify as to the same in any interfe	legal equivalents as ma	ıv be
representatives any and all papers, ir maintain, issue and enforce said app equivalents thereof which may be ned IN WINTNESS WHEREOF, I have he	lication, said invention and said L cessary or desirable to carry out	etters Patent and said the proposes thereof.	Oate of signing
Note: An application data sheet (PTC inventive entity, must accompany this	o/SB/14 or equivalent), including a form. Use this form for <u>each add</u>	naming the entire ditional inventor.	

Page 7 of 14

F#NPO-P0002E-US1201 DSB0-104U032712

REEL: 037029 FRAME: 0223

NPO#NAU-P2598-USA:0

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Jing-Yin Jhang

Page 8 of 14

F#NPO-P0002E-US1201

Title of Invention: SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

As the below named inventor, I here This declaration is directed to:	by declare that:			
☑ The attached application, or				
☐ United States application nu	mber	file	ed on	, or
☐ PCT international application	number		filed on	
The above-identified application was	made or authorized	to be made by n	ne.	
I believe that I am the original invente application.	or or an original joint	inventor of a cla	imed invention in the	
I hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impri	false statement mad sonment of not more	de in this declara than five (5) yea	tion is punishable ars, or both.	
In consideration of the payment by	UNITED MICROE	ELECTRONICS	having a postal add	dress of
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(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an	I of the sum of One d valuable considera	Dollar (\$ 1.00), t ition.	he receipt of which is he	ereby
I hereby sell, assign and transfer to A the entire right, title and interest in an invention as above-identified application or substitutes, or extensions thereof, an	id to any and all impi ion and, in and to, all any continuations, c	rovements which Il Letters Patent t continuation-in-pa	are disclosed in the to be obtained for said art. divisions, renewals	
I hereby covenant that no assignmen entered into which would conflict with	t, sale, agreement of this assignment;	r encumbrance h	as been or will be made	or or
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, ir maintain, issue and enforce said appl equivalents thereof which may be ned IN WINTNESS WHEREOF, I have he	ication, said inventio cessary or desirable	n and said Lette to carry out the p	rs Patent and said proposes thereof.	of signing)
Note: An application data sheet (PTC inventive entity, must accompany this	/SB/14 or equivalent form. Use this form	i), including nami for <u>each addition</u>	ng the entire lal inventor.	

9 of 14

Page

LEGAL NAME OF INVENTOR(ASSIGNOR)				
Inventor:	Rung-Yuan Lee	Date:	>015.11.11	
Signature:	Rung-Yuan	Lee		

Page 10 of 14

F#NPO-P0002E-US1201

Title of Invention:

SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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☐ United States application numberf	iled on , or
□ PCT international application number	filed on
The above-identified application was made or authorized to be made by	me.
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(referred to as "ASSIGNEE"below) to I of the sum of One Dollar (\$ 1.00) acknowledged, andfor other good and valuable consideration.	, the receipt of which is hereby
I hereby sell, assign and transfer to ASSIGNEE and the successors and the entire right, title and interest in and to any and all improvements which invention as above-identified application and, in and to, all Letters Pater invention by the above application or any continuations, continuation-insubstitutes, or extensions thereof, and as to Letters Patent any reissue of	ch are disclosed in the It to be obtained for said part, divisions, renewals
I hereby covenant that no assignment, sale, agreement or encumbrance entered into which would conflict with this assignment;	has been or will be made or
I further covenant that ASSIGNEE will, upon its request, be provided pro and documents relating to said invention and said Letters Patent and leg known and accessible to I and will testify as to the same in any interferer related thereto and will promptly execute and deliver to ASSIGNEE or its	gal equivalents as may be
representatives any and all papers, instruments or affidavits required to a maintain, issue and enforce said application, said invention and said Lett equivalents thereof which may be necessary or desirable to carry out the IN WINTNESS WHEREOF, I have hereunto set hand and seal this	ters Patent and said
Note: An application data sheet (PTO/SB/14 or equivalent), including nai inventive entity, must accompany this form. Use this form for <u>each addition</u>	ming the entire onal inventor.

Page 11 of 14

LEGAL NAME OF INVENTOR(ASSIGNOR)								
Inventor:	Chen-Yi Weng	Date:	SEP 1 6 2015	,				
Signature:	When Yi Weng.							

Page 12 of 14

NPO#NAU-P2598-USA:0 CUST#UMCD-2015-0510

Title of Invention:

SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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	iled on					
☐ PCT international application	number	filed o	n					
The above-identified application was	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.								
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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 WINTNESS 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 13 of 14

LEGAL NAME OF INVENTOR(ASSIGNORY							
Inventor:	Wei-Jen Wu	Date: >0/5/9/16					
Signature:	英國任	Wei Jen Wu	_				

Page 14 of 14

NPO#NAU-P2598-USA:0 CUST#UMCD-2015-0510

RECORDED: 11/12/2015

F#NPO-P0002E-US1201 DSC0-104U010655

PATENT REEL: 037029 FRAME: 0230