503800781 04/26/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 **EPAS ID: PAT3847428**

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Li-Wei Feng	04/25/2016
Shih-Hung Tsai	04/25/2016
Yi-Fan Li	04/25/2016
Kun-Hsin Chen	04/25/2016
Tong-Jyun Huang	04/25/2016
Jyh-Shyang Jenq	04/25/2016
Nan-Yuan Huang	04/25/2016

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:	15139305

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

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

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

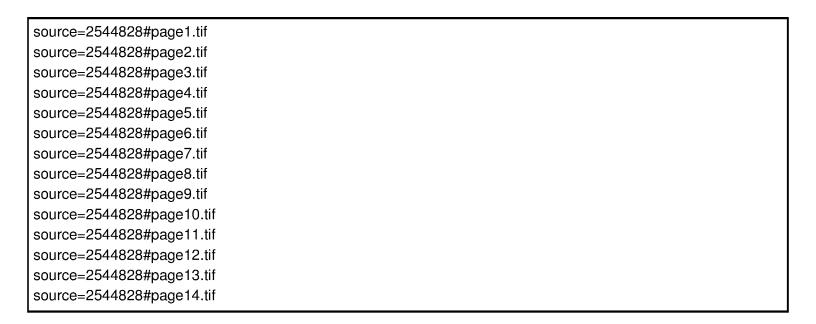
Address Line 4: MERRIFIELD, VIRGINIA 22116

ATTORNEY DOCKET NUMBER:	NAUP2689USA
NAME OF SUBMITTER:	SIBYL YU
SIGNATURE:	/SIBYL YU/
DATE SIGNED:	04/26/2016

Total Attachments: 14

PATENT REEL: 038388 FRAME: 0957

503800781



PATENT REEL: 038388 FRAME: 0958

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

As the below named inventor, I here This declaration is directed to:	eby 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 mad	le by me.	70,755
I believe that I am the original invent application.	tor or an original joint inventor o	f a claimed invention in t	the
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	Il false statement made in this d isonment of not more than five	leclaration is punishable (5) years, or both.	
In consideration of the payment by	UNITED MICROELECTRO	ONICS having a pos	tal address of
No.3, Li-Hsin Road 2, Science	e-Based Industrial Park, H	sin-Chu City 300, Ta	aiwan, R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One Dollar (\$ 1 nd valuable consideration.	1.00), the receipt of whic	h is 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 improvements ition and, in and to, all Letters P r any continuations, continuation	which are disclosed in the which are disclosed in the captain of the which are which are divisions, renew the which are divisions.	he said wals
I hereby covenant that no assignmer entered into which would conflict witl	nt, sale, agreement or encumbra n this assignment;	ance 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 estify as to the same in any inter	d legal equivalents as m ference, litigation proces	av be
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne N WINTNESS WHEREOF, I have h	plication, said invention and said ecessary or desirable to carry ou	I Letters Patent and said at the proposes thereof.	l Date of signing)
Note: An application data sheet (PTC			

Page 1 of 14

LEGAL NAME OF INVENTOR(ASSIGNOR)				
Inventor:	Li-Wei Feng		Date:	APR 2 5 2016
Signature:	Li-Wei	Feng	- Andrews - Andr	

Page 2 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:	eby declare that:			
☑ The attached application, or	•			
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□ PCT international application	n number	fi	led on	
The above-identified application was	s made or authorized t	be made by me).	
I believe that I am the original inventapplication.	tor or an original joint i	nventor of a clain	ned invention in the	
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No.3, Li-Hsin Road 2, Science	e-Based Industrial	Park, Hsin-Ch	u City 300, Taiwa	n, R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One E nd valuable considerati	ollar (\$ 1.00), th on.	e receipt of which is h	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 impro ation and, in and to, all r any continuations, co	vements which a Letters Patent to ntinuation-in-part	re disclosed in the be obtained for said divisions, renewals	
I hereby covenant that no assignment entered into which would conflict with	nt, sale, agreement or this assignment;	encumbrance ha	s been or will be mad	e 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 F estify as to the same in	atent and legal of any interference	equivalents as may be 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 ecessary or desirable to	and said Letters carry out the pr	Patent and said oposes thereof.	of signing)
Note: An application data sheet (PTC inventive entity, must accompany thi	O/SB/14 or equivalent) s form. Use this form fo	including namin or each additiona	g the entire I inventor.	

Page 3 of 14

F#NPO-P0002E-US1201

LEGAL NAM	NE OF INVENTOR(ASSIGNOR)			
Inventor:	Shih-Hung Tsai	Date:	APR 2 5 2016	
Signature:	Shih-Hung Tsin			

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 c	on	, or
□ PCT international application	n number	file	d on	-
The above-identified application was	s made or authorized to be r	nade by me.		
I believe that I am the original invent application.	or or an original joint invento	or of a claime	d invention in the	
l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	Il false statement made in th isonment of not more than f	is declaration ive (5) years,	is punishable or both.	
In consideration of the payment by	UNITED MICROELECT	FRONICS	having a postal add	lress of
No.3, Li-Hsin Road 2, Science	e-Based Industrial Park	, Hsin-Chu	City 300, Taiwar	, R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an	o I of the sum of One Dollar nd valuable consideration.	(\$ 1.00), the i	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 or substitutes, or extensions thereof, ar	nd to any and all improveme tion and, in and to, all Letter r any continuations, continua	ents which are rs Patent to be ation-in-part, o	disclosed in the obtained for said divisions, renewals.	IE E
l hereby covenant that no assignmer entered into which would conflict with	nt, sale, agreement or encur n this assignment;	nbrance has l	been or will be made	or
I further covenant that ASSIGNEE wand documents relating to said invention and accessible to I and will terelated thereto and will promptly executed.	ntion and said Letters Patent estify as to the same in any i	and legal eq nterference, li	uivalents as may be tigation proceeding	ots
representatives any and all papers, in maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have he	olication, said invention and secessary or desirable to carr	said Letters F y out the prop	atent and said oses thereof.	of signing)
Note: An application data sheet (PTC nventive entity, must accompany this				

Page 5 of 14

LEGAL NAME OF INVENTOR(ASSIGNOR)				
Inventor:	Yi-Fan Li		Date:	APR 2 5 2016
Signature:	Y:-Fan	Ц		

Page 6 of 14

Title of Invention:

SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

As the below named inventor, I here	hy declare that:		
This declaration is directed to:	by decide that.		
☑ The attached application, or			
☐ United States application nur	mber	filed on,	or
□ PCT international application	number	filed on	
The above-identified application was	made or authorized to be made I	oy me.	-
I believe that I am the original invento application.	or 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 impri	I false statement made in this dec sonment of not more than five (5)	laration is punishable years, or both.	
In consideration of the payment by	UNITED MICROELECTRON CORP.	IICS having a postal add	ress of
No.3, Li-Hsin Road 2, Science	-Based Industrial Park, Hsi	n-Chu City 300, Taiwan,	R.O.C.
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I hereby sell, assign and transfer to A the entire right, title and interest in ar invention as above-identified applicat invention by the above application or substitutes, or extensions thereof, an	nd to any and all improvements wi tion and, in and to, all Letters Pate any continuations, continuation-i	hich are disclosed in the ent to be obtained for said n-part, divisions, renewals.	ΞE
I hereby covenant that no assignmen entered into which would conflict with	it, sale, agreement or encumbrand i this assignment;	ce has been or 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 equivalents as may be rence, litigation proceeding	s
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 L cessary or desirable to carry out t	etters Patent and said he proposes thereof.	^r signing)
Note: An application data sheet (PTC inventive entity, must accompany this			

Page 7 of 14

F#NPO-P0002E-US1201

LEGAL NA	ME OF INVENTOR(ASSIGN	NOR)			
Inventor:	Kun-Hsin Chen		Date:	APR 2 5 2016	
Signature:	Kun- Hsia	Chan			

Page 8 of 14

NPO#NAU-P2689-USA:0 CUST#UMCD-2015-0832

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.			
l believe that I am the original invent application.	or or an original joint inventor of a	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 ded sonment 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	ress of		
No.3, Li-Hsin Road 2, Science	-Based Industrial Park, Hsi	in-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 d valuable consideration.	00), the receipt of which is he	reby		
I hereby sell, assign and transfer to A the entire right, title and interest in ar invention as above-identified applicat 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 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 assignmen entered into which would conflict with	t, sale, agreement or encumbran this assignment;	ce has been or will be made	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, in maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have he	lication, said invention and said L cessary or desirable to carry out t	etters Patent and said the proposes thereof.	f signing)		
Note: An application data sheet (PTC inventive entity, must accompany this	o/SB/14 or equivalent), including r s form. Use this form for <u>each adc</u>	naming the entire ditional inventor.			

Page 9 of 14

F#NPO-P0002E-US1201

PATENT REEL: 038388 FRAME: 0967

LEGAL NAME OF INVENTOR(ASSIGNOR)				
Inventor:	Tong-Jyun Huang	Date:	APR 2 5 2016	
Signature:	Tong - Tym	Gheng		

Page 10 of 14

Title of Invention:

SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME

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☑ The attached application, or					
☐ United States application number		filed o	filed on		
□ PCT international application	number	file	filed on		
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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 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 improvemention and, in and to, all Letter any continuations, continu	ents which are ers Patent to be ation-in-part, d	disclosed in the obtained for said ivisions, renewals	j S	
I hereby covenant that no assignmer entered into which would conflict with	nt, sale, agreement or encu n this assignment;	mbrance has b	een or will be ma	de 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 Paten stify as to the same in any	it and legal equ interference. lit	iivalents as may t igation proceeding	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 invention and cessary or desirable to can	said Letters Pary out the prope	atent and said oses thereof.	e of signing)	
Note: An application data sheet (PTC inventive entity, must accompany this	D/SB/14 or equivalent), incl s form. Use this form for <u>ea</u>	uding naming t ch additional ir	he entire		

Page 11 of 14

NPO#NAU-P2689-USA:0 CUST#UMCD-2015-0832

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Jyh-Shyang Jenq

Date:

APR 2 5 2016

Signature:

Page 12 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 number			filed on		
☐ PCT international application	number	filed	on		
The above-identified application was	made or authorized to be ma	ade by me.			
I believe that I am the original invento application.	or or an original joint inventor	of a claimed i	nvention in the		
I hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impri	false statement made in this sonment of not more than fiv	declaration is e (5) years, or	punishable both.		
In consideration of the payment by	UNITED MICROELECTR	RONICS h	aving a postal a	address of	
No.3, Li-Hsin Road 2, Science	-Based Industrial Park,	Hsin-Chu C	ity 300, Taiw	an, R.O.C.	
(referred to as "ASSIGNEE"below) to acknowledged, and for other good an	l of the sum of One Dollar (\$ d valuable consideration.	3 1.00), the rec	eipt of which is	hereby	
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, ir maintain, issue and enforce said app equivalents thereof which may be ned IN WINTNESS WHEREOF, I have he	lication, said invention and sa cessary or desirable to carry	aid Letters Pate out the propos	ent and said es thereof.	te 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>					

Page 13 of 14

NPO#NAU-P2689-USA:0 CUST#UMCD-2015-0832

LEGAL NAM	ME OF INVENTOR(ASSIGNOR)			
Inventor:	Nan-Yuan Huang	Date:	APR 2 5 2016	
Signature:	Nan - Yuan Lhang			

Page 14 of 14

NPO#NAU-P2689-USA:0 CUST#UMCD-2015-0832

RECORDED: 04/26/2016

F#NPO-P0002E-US1201 DSB0-105U009015

PATENT REEL: 038388 FRAME: 0972