503755287 03/27/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3801933

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Fu-Shou Tsai	03/18/2016
Yu-Ting Li	03/18/2016
Chih-Hsun Lin	03/18/2016
Li-Chieh Hsu	03/18/2016
Yi-Liang Liu	01/21/2016
Po-Cheng Huang	03/18/2016
Kun-Ju Li	03/18/2016
Wen-Chin Lin	03/18/2016

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:	15081932

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: P.O.BOX 506

Address Line 4: MERRIFIELD, VIRGINIA 22116

ATTORNEY DOCKET NUMBER:	NAUP2683USA4
NAME OF SUBMITTER:	KATE YEH
SIGNATURE:	/KATE YEH/
DATE SIGNED:	03/27/2016

tal Attachments: 16
urce=2518274#page1.tif
urce=2518274#page2.tif
urce=2518274#page3.tif
urce=2518274#page4.tif
urce=2518274#page5.tif
urce=2518274#page6.tif
urce=2518274#page7.tif
urce=2518274#page8.tif
urce=2518274#page9.tif
urce=2518274#page10.tif
urce=2518274#page11.tif
urce=2518274#page12.tif
urce=2518274#page13.tif
urce=2518274#page14.tif
urce=2518274#page15.tif
urce=2518274#page16.tif

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

As the below named inventor, I here This declaration is directed to:	eby declare that:		
☑ The attached application, or	•		
☐ United States application nu	ımber	filed on	, or
☐ PCT international application	n number	filed on	
The above-identified application was	s made or authorized to be made	by me.	
l believe that I am the original invent application.	tor or an original joint inventor of	a claimed 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 add	dress of
No.3, Li-Hsin Road 2, Science	e-Based Industrial Park, Hs	in-Chu City 300, Taiwan	ı, 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.	00), the receipt of which is he	reby
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, an	nd to any and all improvements wation and, in and to, all Letters Par r any continuations, continuation	which are disclosed in the tent to be obtained for said in-part, divisions, renewals,	IEE
hereby covenant that no assignment entered into which would conflict wit		nce has been or will be made	or
further covenant that ASSIGNEE wand documents relating to said inverknown and accessible to I and will terelated thereto and will promptly exe	ntion and said Letters Patent and estify as to the same in any interfe	legal equivalents as may be erence, litigation proceeding	ats
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be no N WINTNESS WHEREOF, I have h	olication, said invention and said ecessary or desirable to carry out	Letters Patent and said the proposes thereof.	of signing)
Note: An application data sheet (PT0 nventive entity, must accompany thi	O/SB/14 or equivalent), including is form. Use this form for each ac	naming the entire	

Page 1 of 16

NPO#NAU-P2683-USA:4 CUST#UMCD-2015-0559-0P1

LEGAL NAI	ME OF INVENTOR(ASSIC	SNOR)						
Inventor:	Fu-Shou Tsai		Date:	MAR	4	8	2016	
Signature:	Fu-Shou	Tsai						

Page 2 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

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	l on	, or
☐ PCT international application	n number	fi	led on	
The above-identified application was	made or authorized	to be made by me),	
I believe that I am the original inventagplication.	or or an original joint	inventor of a claim	ned invention in	the
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impri				е
In consideration of the payment by	UNITED MICROE	LECTRONICS	having a po	estal address of
No.3, Li-Hsin Road 2, Science	-Based Industria	l Park, Hsin-Ch	u City 300,	Γaiwan, R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good an			e receipt of whi	ich is hereby
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, ar	nd to any and all impr tion and, in and to, al any continuations, c	ovements which a I Letters Patent to ontinuation-in-pan	are disclosed in be obtained fo t, divisions, ren	the r said ewals,
I hereby covenant that no assignment entered into which would conflict with		r encumbrance ha	s been or will b	e made 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 exe	ition and said Letters stify as to the same i	Patent and legal on any interference	equivalents as , litigation proc	may be
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne IN WINTNESS WHEREOF, I have he	olication, said invention cessary or desirable	n and said Letters to carry out the pr	Patent and sa	
Note: An application data sheet (PTC inventive entity, must accompany this				

Page 3 of 16

LEGAL NAME OF INVENTOR(ASSIGNOR)						
Inventor:	Yu-Ting Li	Date:	MAR 1		2016	
Signature:	Yu-Ting Li					

Page 4 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

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 author	orized to be made by me.	
I believe that I am the original inventor or an origina application.	I joint inventor of a claimed invention in the	
I hereby acknowledge that any willful false statement under18 U.S.C. 1001 by fine or imprisonment of not		
In consideration of the payment by CORP.	CROELECTRONICS having a postal	address of
No.3, Li-Hsin Road 2, Science-Based Indu	ıstrial Park, Hsin-Chu City 300, Taiv	van, R.O.C.
(referred to as "ASSIGNEE"below) to I of the sum o acknowledged, andfor other good and valuable con-	f One Dollar (\$ 1.00), the receipt of which is sideration.	s hereby
I hereby sell, assign and transfer to ASSIGNEE and the entire right, title and interest in and to any and a invention as above-identified application and, in and invention by the above application or any continuation substitutes, or extensions thereof, and as to Letters	Ill improvements which are disclosed in the d to, all Letters Patent to be obtained for sai ons, continuation-in-part, divisions, renewal	id ls,
I hereby covenant that no assignment, sale, agreem entered into which would conflict with this assignme	nent or encumbrance has been or will be ma ent;	ade or
I further covenant that ASSIGNEE will, upon its requand documents relating to said invention and said L known and accessible to I and will testify as to the s related thereto and will promptly execute and delive	etters Patent and legal equivalents as may same in any interference, litigation proceedi	be
representatives any and all papers, instruments or a maintain, issue and enforce said application, said in equivalents thereof which may be necessary or des IN WINTNESS WHEREOF, I have hereunto set har	ovention and said Letters Patent and said irrable to carry out the proposes thereof.	ate of signing)
Note: An application data sheet (PTO/SB/14 or equinocentive entity, must accompany this form. Use this	ivalent), including naming the entire s form for <u>each additional inventor.</u>	

Page 5 of 16

REEL: 038108 FRAME: 0460

LEGAL NAME OF INVENTOR(ASSIGNOR)							
Inventor:	Chih-Hsun Lin		Date:			-	2016
Signature:	Chith-Houn	lin		****		*****	

Page 6 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

As the below named inventor, I here This declaration is directed to:	eby declare that:		
☑ The attached application, or			
☐ United States application nu	ımber	filed on	, or
☐ PCT international application	n number	filed on	
The above-identified application was	s made or authorized to be made	by me.	
l believe that I am the original invent application.	tor or an original joint inventor of a	a claimed invention in the	
l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	ll false statement made in this dec risonment of not more than five (5	claration is punishable) years, or both.	
In consideration of the payment by	UNITED MICROELECTROI CORP.	NICS having a postal add	dress of
No.3, Li-Hsin Road 2, Science	e-Based Industrial Park, Hs	in-Chu City 300, Taiwar	ı, R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One Dollar (\$ 1.0 nd valuable consideration.	00), the 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 of substitutes, or extensions thereof, an	nd to any and all improvements wation and, in and to, all Letters Pater any continuations, continuation-	which are disclosed in the tent to be obtained for said in-part, divisions, renewals.	IEE
hereby covenant that no assignment entered into which would conflict wit	nt, sale, agreement or encumbrar h this assignment;	nce has been or will be made	· or
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 interfe	legal equivalents as may be erence, litigation proceeding	ats
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 lecessary or desirable to carry out	Letters Patent and said the proposes thereof.	of signing)
Note: An application data sheet (PT0 nventive entity, must accompany thi	O/SB/14 or equivalent), including is form. Use this form for <u>each ad</u>	naming the entire ditional inventor.	٠.

Page 7 of 16

NPO#NAU-P2683-USA:4 CUST#UMCD-2015-0559-0P1

Inventor: Li-Chieh Hsu

Date: MAR 1 8 2016

Signature: L; -Chieh Hsu

Page 8 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

As the below named inventor, I here This declaration is directed to:	eby declare that:			
☑ The attached application, or				
☐ United States application nu	ımber	filed	on	, or
☐ PCT international application	n number	fil	ed on	**************************************
The above-identified application was	s made or authorized to	be made by me.	***************************************	***************************************
I believe that I am the original invent application	tor or an original joint in	ventor of a claim	ed invention in th	ne
l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	ıl false statement made risonment of not more th	in this declaratio an five (5) years	n is punishable , or both.	
In consideration of the payment by	UNITED MICROEL CORP.	ECTRONICS	having a post	al address of
No.3, Li-Hsin Road 2, Science	e-Based Industrial F	Park, Hsin-Chi	— u City 300, Та	iwan, R.O.C
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One Dond valuable consideration	ollar (\$ 1.00), the n.	receipt of which	is hereby
hereby sell, assign and transfer to a the entire right, title and interest in a nvention as above-identified applica nvention by the above application of substitutes, or extensions thereof, ar	nd to any and all improvition and, in and to, all L r any continuations, con	rements which ar etters Patent to I tinuation-in-part.	re disclosed in the be obtained for s divisions, renew	e aid als.
hereby covenant that no assignment entered into which would conflict with	nt, sale, agreement or e h this assignment;	ncumbrance has	been or will be	made or
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 Pa estify as to the same in a	atent and legal early interference,	quivalents as ma litigation proceed	ay 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	olication, said invention a ecessary or desirable to	and said Letters carry out the pro	Patent and said poses thereof.	Date of signing)
Note: An application data sheet (PTC	D/SB/14 or equivalent), s form. Use this form fo	including naming r_each additional	the entire inventor.	• •

Page 9 of 16

NPO#NAU-P2683-USA:4 CUST#UMCD-2015-0559-0P1

LEGAL IVA	ME OF HAVEIALOU/Wagiourou/		
Inventor:	Yi-Liang Liu	Date:	2016.1.21
Signature:	11- Liang Lion		

Page 10 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

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 made	by me.	
l believe that I am the original invent application.	tor or an original joint inventor of a	a claimed invention in the	
l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	Il false statement made in this decisonment of not more than five (5	claration is punishable) years, or both.	
In consideration of the payment by	UNITED MICROELECTROI CORP.	NICS having a postal addr	ess of
No.3, Li-Hsin Road 2, Science	e-Based Industrial Park, Hs	in-Chu Ciṭy 300, Taiwan,	R.O.C.
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One Dollar (\$ 1.0 nd valuable consideration.	00), the receipt of which is her	eby
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 improvements w ition and, in and to, all Letters Pat r any continuations, continuation-	rhich are disclosed in the tent to be obtained for said in-part, divisions, renewals	E
hereby covenant that no assignmer entered into which would conflict with	nt, sale, agreement or encumbrar h this assignment;	nce has been or will be made o	or
further covenant that ASSIGNEE wand documents relating to said invention and accessible to I and will terelated thereto and will promptly exe	ntion and said Letters Patent and estify as to the same in any interfe	legal equivalents as may be rence. litigation proceeding	s
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne N WINTNESS WHEREOF, I have he	olication, said invention and said L ecessary or desirable to carry out	etters Patent and said	signing)
Note: An application data sheet (PTC nventive entity, must accompany this	D/SB/14 or equivalent), including s form. Use this form for each add	naming the entire ditional inventor.	

Page 11 of 16

NPO#NAU-P2683-USA:4 CUST#UMCD-2015-0559-0P1

LEGAL NAM	ME OF INVENTOR(ASSIGNOR)					
Inventor	Po-Cheng Huang	Date:	MAR	1	8	2016
Signature:	Po-Cheng	Huang			delin Administra	
	Ů.	The second secon				

Page 12 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

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	d to be made by r	ne.	
I believe that I am the original invent application.	or or an original join	t inventor of a cla	imed invention i	n the
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impri	I false statement ma isonment of not mor	de in this declara e than five (5) ye	ation is punishab ars, or both.	ble
In consideration of the payment by	UNITED MICRO CORP.	ELECTRONIC	S having a p	ostal address of
No.3, Li-Hsin Road 2, Science	-Based Industria	al Park, Hsin-C	 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 d valuable consider	e Dollar (\$ 1.00), ation.	the receipt of wh	nich is hereby
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 imp tion and, in and to, a any continuations,	provements which all Letters Patent continuation-in-pa	n are disclosed in to be obtained fo art, divisions, rei	n the or said newals.
I hereby covenant that no assignmer entered into which would conflict with	nt, sale, agreement on this assignment;	or encumbrance l	nas 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 stify as to the same	s Patent and lega in any interferenc	il equivalents as ce, litigation prod	may 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 inventi cessary or desirable	on and said Lette to carry out the	ers Patent and s	aid of. (Date of signing)
Note: An application data sheet (PTC inventive entity, must accompany this	D/SB/14 or equivaler s form. Use this form	nt), including nam n for <u>each additio</u>	ning the entire	

Page 13 of 16

NPO#NAU-P2683-USA:4 CUST#UMCD-2015-0559-0P1

LEGAL NAME OF INVENTOR(ASSIGNOR)							
Inventor:	Kun-Ju Li	Date:	MAR		8	2016	
Signature:	Kun-Ju Li				~~~		

Page 14 of 16

Title of Invention: METHOD OF FABRICATING A GATE CAP LAYER

As the below named inventor, I here This declaration is directed to:	by declare that:			
☑ The attached application, or				
☐ United States application nu	ımber	filed	on	, or
☐ PCT international application	n number	file	ed on	***************************************
The above-identified application was	s made or authorized to	be made by me.	***************************************	
I believe that I am the original inventage application.	tor or an original joint in	ventor of a claime	ed invention in t	he
I hereby acknowledge that any willfuunder18 U.S.C. 1001 by fine or impr	Il false statement made isonment of not more the	in this declaration nan five (5) years	n is punishable , or both.	
In consideration of the payment by	UNITED MICROEL CORP.	ECTRONICS	having a pos	tal address of
No.3, Li-Hsin Road 2, Science	e-Based Industrial I	Park, Hsin-Chu	— ı City 300, Та	aiwan, R.O.C
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One D nd valuable consideration	ollar (\$ 1.00), the on.	receipt of which	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 o substitutes, or extensions thereof, an	nd to any and all improv ition and, in and to, all L r any continuations, cor	vements which ar ∟etters Patent to t ntinuation-in-part,	e disclosed in the obtained for some divisions, renevalue.	he said wals.
I hereby covenant that no assignment entered into which would conflict wit	nt, sale, agreement or e h this assignment;	encumbrance 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 P estify as to the same in a	atent and legal ed any interference,	quivalents as m litigation procee	ay be
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 ecessary or desirable to	and said Letters carry out the pro	Patent and said poses thereof.	l Date of signing)
Note: An application data sheet (PT0 inventive entity, must accompany thi		including naming	the entire	

Page 15 of 16

NPO#NAU-P2683-USA:4 CUST#UMCD-2015-0559-0P1

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor: Wen-Chin Lin Date: MAR 1 8 2016

Signature: Wen-Chin Lin

Page 16 of 16