506313011 10/20/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6359760

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Yu-Che Yang	02/26/2020
Ka-Un Chan	02/26/2020
Yong-Ru Lu	02/26/2020
Shen-luan Liu	02/26/2020

RECEIVING PARTY DATA

Name:	Realtek Semiconductor Corp.	
Street Address: 2 Innovation Rd. II, Science Park		
City:	HsinChu	
State/Country:	TAIWAN	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	17075651	

CORRESPONDENCE DATA

Fax Number:

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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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:	REAP1008USA
NAME OF SUBMITTER:	SIBYL YU
SIGNATURE:	/SIBYL YU/
DATE SIGNED:	10/20/2020

Total Attachments: 8

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PATENT REEL: 054116 FRAME: 0958

506313011



PATENT REEL: 054116 FRAME: 0959

Title of Invention: SUB-SAMPLING PHASE-LOCKED LOOP

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, o	or	
☐ PCT international application	n 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 claimed invention in the		
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 (eclaration is punishable 5) years, or both.		
In consideration of the payment by	Realtek Semiconductor C	orp. having a postal addre	ess of	
2 Innovation Rd. II, Science P	ark, HsinChu 30076, Taiwa	an, R.O.C.		
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One Dollar (\$ 1 and valuable consideration.	.00), the receipt of which is here	by ·	
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 tion and, in and to, all Letters Parany continuations, continuation	which are disclosed in the attent to be obtained for said along, renewals.	E	
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 on the date(s) indicated.				

Page 1 of 8

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: Yu-Che Yang Date:

Date: FEB 2 6 2020

Signature: _____ he C

Title of Invention: SUB-SAMPLING PHASE-LOCKED LOOP

As the below named inventor, I hereby declare that: This declaration is directed to:				
☑ The attached application, or				
☐ United States application nu	ımber	filed o	n,	, or
☐ PCT international applicatio	n number	file	d on	
The above-identified application was	s made or authorized to be made	by me.		
I believe that I am the original inven- application.	tor or an original joint inventor of	a claimed	d invention in the	
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impl	al false statement made in this de risonment of not more than five (eclaration 5) years,	is punishable or both.	
In consideration of the payment by	Realtek Semiconductor C	orp.	having a postal add	ress of
2 Innovation Rd. II, Science P	Park, HsinChu 30076, Taiwa	n, R.O.	<u>С.</u>	
(referred to as "ASSIGNEE"below) t acknowledged, andfor other good ar	to I of the sum of One Dollar (\$ 1. nd valuable consideration.	00), the r	receipt of which is her	eby
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.				EE
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;				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				
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NPO#REA-P1008-USA:0 CUST#108A-086US F#NPO-P0002E-US1201 DSB0-108U024239

Inventor: Ka-Un Chan Date: FEB 2 6 2020

Signature:

Title of Invention: SUB-SAMPLING PHASE-LOCKED LOOP

As the below named inventor, I hereby This declaration is directed to:	declare that:			
☑ The attached application, or				
☐ United States application numb	oer	filed o	nn	, or
☐ PCT international application n	umber	file	d on	
The above-identified application was ma	ade or authorized to	be made by me.		
I believe that I am the original inventor of application.	or an original joint inv	rentor of a claime	d invention in th	ne
l hereby acknowledge that any willful fal under18 U.S.C. 1001 by fine or imprisor	lse statement made nment of not more th	in this declaration an five (5) years,	is punishable or both.	
In consideration of the payment by	ealtek Semicond	uctor Corp.	having a posta	al address of
2 Innovation Rd. II, Science Park	k, HsinChu 30076	, Taiwan, R.O.	 C.	
(referred to as "ASSIGNEE"below) to I of acknowledged, andfor other good and vi	of the sum of One Do aluable consideration	ollar (\$ 1.00), the i	eceipt of which	is hereby
I hereby sell, assign and transfer to ASS the entire right, title and interest in and to invention as above-identified application invention by the above application or an substitutes, or extensions thereof, and a	o any and all improve I and, in and to, all Le V continuations, cont	ements which are etters Patent to be inuation-in-part	e disclosed in the e obtained for si divisions, renew	e aid vals
I hereby covenant that no assignment, s entered into which would conflict with thi	ale, agreement or er is assignment;	ncumbrance has t	oeen or will be r	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, instr maintain, issue and enforce said applica equivalents thereof which may be neces IN WITNESS WHEREOF, I have hereun	tion, said invention a sarv or desirable to	ind said Letters P	atent and said	
Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire nventive entity, must accompany this form. Use this form for <u>each additional inventor.</u>				

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NPO#REA-P1008-USA:0 CUST#108A-086US

F#NPO-P0002E-US1201 DSB0-108U024239

Inventor: Yong-Ru Lu Date: FEB 2 6 2020

Signature: Yong-Ru, Qu.

Page 6 of 8

Title of Invention: SUB-SAMPLING PHASE-LOCKED LOOP

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 authorized t	o be made by me.	
I believe that I am the original inventor or an original joint i application.	nventor of a claimed invention in t	he
I hereby acknowledge that any willful false statement mad under18 U.S.C. 1001 by fine or imprisonment of not more	e in this declaration is punishable than five (5) years, or both.	
In consideration of the payment by Realtek Semicon	ductor Corp. having a post	al address of
2 Innovation Rd. II, Science Park, HsinChu 3007	76, Taiwan, R.O.C.	
(referred to as "ASSIGNEE" below) to I of the sum of One I acknowledged, andfor other good and valuable considerat	Dollar (\$ 1.00), the receipt of which ion.	is hereby
I hereby sell, assign and transfer to ASSIGNEE and the su the entire right, title and interest in and to any and all impro invention as above-identified application and, in and to, all invention by the above application or any continuations, co substitutes, or extensions thereof, and as to Letters Patent	ovements which are disclosed in the Letters Patent to be obtained for security and continuation-in-part, divisions, renew	ne said vals
I hereby covenant that no assignment, sale, agreement or entered into which would conflict with this assignment;	encumbrance has been or will be	made or
I further covenant that ASSIGNEE will, upon its request, be and documents relating to said invention and said Letters I known and accessible to I and will testify as to the same in related thereto and will promptly execute and deliver to AS	Patent and legal equivalents as ma any interference, litigation proceed	av he
representatives any and all papers, instruments or affidavit maintain, issue and enforce said application, said inventior equivalents thereof which may be necessary or desirable to IN WITNESS WHEREOF, I have hereunto set hand and se	n and said Letters Patent and said ocarry out the proposes thereof	
Note: An application data sheet (PTO/SB/14 or equivalent)	, including naming the entire	

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NPO#REA-P1008-USA:0 CUST#108A-086US

F#NPO-P0002E-US1201 DSB0-108U024239

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:	Shen-luan Liu	Date:	FEB 26 2020
Signature:	Shen-Juan	2	

NPO#REA-P1008-USA:0 CUST#108A-086US

RECORDED: 10/20/2020

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F#NPO-P0002E-US1201 DSB0-108U024239

PATENT REEL: 054116 FRAME: 0967