505934655 02/25/2020

PATENT ASSIGNMENT COVER SHEET

EPAS ID: PAT5981374

Electronic Version v1.1
Stylesheet Version v1.2

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
XIAOFANG CHEN	02/24/2020
WENWEI WANG	02/24/2020
DANYANG QIAO	02/24/2020

RECEIVING PARTY DATA

Name:	SK HYNIX MEMORY SOLUTIONS AMERICA INC.
Street Address:	3103 NORTH FIRST STREET
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95134

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16800630

CORRESPONDENCE DATA

Fax Number: (571)327-5452

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: 5713275450

Email: ipntlaw@ipntlaw.com

Correspondent Name: IP & T GROUP LLP

Address Line 1: 8230 LEESBURG PIKE

Address Line 2: SUITE 650

Address Line 4: VIENNA, VIRGINIA 22182

ATTORNEY DOCKET NUMBER:	P19HS0011
NAME OF SUBMITTER:	KEON WOO PARK
SIGNATURE:	/Keon Woo PARK/
DATE SIGNED:	02/25/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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PATENT 505934655 REEL: 051922 FRAME: 0939

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PATENT REEL: 051922 FRAME: 0940

Attorney Docket No.: P19HS0011

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	Xiaofang CHEN		hereinafter refer	red to colle	ctively as	
the assignor and inv	entor, has invented a certain improve	ement relating to				
CIRCUIT	S AND METHODS OF OPERATI	NG THE CIRCUITS				
on	being attached hereto; having been filed in the United State, as Application Seri(if a of which was filed under the Patent, the United State	al No. pplicable); Cooperation Treaty on	, a	and was	amended	
AND WHEREAS SK Hynix Memory Solutions America Inc. of 3103 North First Street, San Jose, CA 95134. hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;						
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assigner, the receipt of which is hereby acknowledged, said assigner hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.						
	assignor hereby agrees to perform, acts relating to the obtaining or to hereof.					
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.						
	ve-named inventor, I hereby declare at I am the original inventor or an or					
	cknowledge that any willful false stament of not more than five (5) years,		n is punishable i	under 18 U	.S.C. 1001	
ASSIGNOR (INVE	ENTOR):	Dat	te: <u>2/2</u>	4/200	<u>~</u> 0	
Printed or Typed N	ame: Xiaofang					

Attorney Docket No.: P19HS0011

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	Wenwei WANG		, hereinafter ret	ferred to collectively
		certain improvement relating to		
CIRCUI	TS AND METHODS O	F OPERATING THE CIRCU	ITS	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
said applicatio	on of which was filed und	United States Patent and Trade plication Serial No(if applicable); er the Patent Cooperation Treat e United States of America bein	y on	and was amended
hereinafter referre application, includ	d to as the assignee or ap ling any and all divisions	ory Solutions America Inc. of 3 plicant, is desirous of acquiring and continuations thereof, and in and all renewals, reissues and	the entire right, title and int n and to said invention and	erest in and to said
consideration paid assigns, sells and interest in and to a any and all patent assignee, and said all divisions and including any and anywise arising fi including any and assignee's success	d by said assignee to said transfers to said assignee said application, including its which may be granted assignee's successors and continuations thereof, and all renewals, reissues and rom or appertaining there d all renewals, reissues	t for and in consideration of C id assignor, the receipt of whice, and said assignee's successors g any and all divisions and cont therefor, including any and all d assigns, to have, hold, exercise and the said invention and any ad prolongations thereof, with a leto, for and during the term or and prolongations thereof, for and prolongations thereof, for and prolongations thereof, for any been made.	ch is hereby acknowledged and assigns, the full and ex- inuations thereof, and in an renewals, reissues and prole and enjoy the said applica and all patents which ma Il the rights, powers, privile terms of any and all such the use and benefit of sa	I, said assignor hereby xclusive right, title and d to said invention and ongations thereof; said tion, including any and ty be granted therefor, eges and advantages in patents when granted, aid assignee, and said
	all acts relating to the obt	s to perform, upon the request taining or to the asserting of sai		
	and on any and all division	I requests the Commissioner of ons and continuations thereof, to		
		ereby declare that the above-identor or an original joint invento		
•	acknowledge that any winnent of not more than fi	illful false statement made in the ive (5) years, or both.	is declaration is punishable	under 18 U.S.C. 1001
ASSIGNOR (INV	(ENTOR):		50%	,
Signature:		K	Date:	24/2020
Printed or Typed	Name:	Wenwei WANG		

Page 2 of 3

Attorney Docket No.: P19HS0011

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	Danyang QIAO		, <u> </u>	iereinafter re	ferred t	o colle	ctively as
the assignor and inve	ntor, has invented a cert	ain improvement relat	ing to				
CIRCUITS	AND METHODS OF	OPERATING THE	CIRCUITS				2
[] said application bon	being attached hereto; having been filed in the l, as Appl of which was filed under	lication Serial No. (if applicable); r the Patent Cooperation	on Treaty on		and	was ,	amended
hereinafter referred t application, including	S SK Hynix Memore of a Hynix Memore of as the assignee or apple of any and all divisions and therefor, including any	licant, is desirous of ac nd continuations there	quiring the entire righ of, and in and to said i	t, title and in nvention and	terest is	n and to	o said
consideration paid by assigns, sells and trainterest in and to said any and all patents vassignee, and said as all divisions and coincluding any and all anywise arising from including any and a assignee's successors	S WITNESSETH, that by said assignee to said assignee, dapplication, including which may be granted the signee's successors and antinuations thereof, and I renewals, reissues and or appertaining theretall renewals, reissues a and assigns, in as amputhis assignment had not	assignor, the receipt and said assignee's su any and all divisions a herefor, including any assigns, to have, hold, if the said invention a prolongations thereolo, for and during the nd prolongations there ole and beneficial a n	of which is hereby a ccessors and assigns, t and continuations there and all renewals, reise exercise and enjoy the and any and all pater c, with all the rights, p term or terms of any reof, for the use and	icknowledged the full and eleof, and in an sues and pro- e said applicates which man lowers, privil and all such benefit of s	d, said exclusived to sa longation, in the parties and a second a	assign we right aid inve- ons the neludin- granted advi- ts where signee,	or hereby t, title and ention and ereof; said tg any and t therefor, antages in n granted, and said
	assignor hereby agrees acts relating to the obtainereof.						
	ssignor authorizes and a on any and all division the herewith.						
	e-named inventor, I her t I am the original inven						
	knowledge that any will ent of not more than five		de in this declaration	is punishable	e under	18 U.	S.C. 1001
ASSIGNOR (INVE) Signature:	vior): Denza le	<u> </u>	Date:	2/2	4/2	10)0	s
	me:						

Page 3 of 3