505929365 02/21/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5976083

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	<b>Execution Date</b>	
FAN ZHANG	02/19/2020	
HONGWEI DUAN	02/19/2020	
AMAN BHATIA	02/19/2020	

#### **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:	16797728

#### 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:	P19HS0010	
NAME OF SUBMITTER:	KEON WOO PARK	
SIGNATURE:	/Keon Woo PARK/	
<b>DATE SIGNED:</b> 02/21/2020		
	This document serves as an Oath/Declaration (37 CFR 1.63).	

**Total Attachments: 3** 

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> **PATENT REEL: 051889 FRAME: 0968** 505929365

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PATENT REEL: 051889 FRAME: 0969

Attorney Docket No.: P19HS0010

# ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS_	Fan ZHANG	, bereinafter referred to collectively as
		tain improvement relating to
POWER	CONTROL DEVICE A	ND METHOD FOR ERROR CORRECTION CODE COMPONENTS IN
MEMORY SYST	<u>'EM .</u>	
[ ] said application on [ ] the specification	n of which was filed unde	United States Patent and Trademark Office on  pplication Serial No
hereinafter referre application, include	d to as the assignee or app ling any and all divisions	ry Solutions America Inc. of 3103 North First Street, San Jose, CA 95134. licant, is desirous of acquiring the entire right, title and interest in and to said and continuations thereof, and in and to said invention and any and all patents y and all renewals, reissues and prolongations thereof;
consideration paid assigns, sells and interest in and to any and all patent assignee, and said all divisions and including any and anywise arising fr including any and assignee's success	I by said assignee to sai transfers to said assignee said application, including a which may be granted assignee's successors and continuations thereof, are all renewals, reissues and on or appertaining there d all renewals, reissues	for and in consideration of One Dollar (\$1.00), and other good and valuable lassignor, the receipt of which is hereby acknowledged, said assignor hereby and said assignee's successors and assigns, the full and exclusive right, title and any and all divisions and continuations thereof, and in and to said invention and herefor, including any and all renewals, reissues and prolongations thereof; said assigns, to have, hold, exercise and enjoy the said application, including any and dithe said invention and any and all patents which may be granted therefor, I prolongations thereof, with all the rights, powers, privileges and advantages in to, for and during the term or terms of any and all such patents when granted, and prolongations thereof, for the use and benefit of said assignee, and said ple and beneficial a manner as the said assignor might or could have held and been made.
AND sai assigns, any and a and prolongations	all acts relating to the obt	to perform, upon the request of said assignee, or said assignee's successors or sining or to the asserting of said patents, including any and all renewals, reissues
	and on any and all division	requests the Commissioner of Patents and Trademarks to issue Letters Patent on as and continuations thereof, to said assignee, and said assignee's successors and
		reby declare that the above-identified application was made or authorized to be not or an original joint inventor of a claimed invention in the application.
I hereby by fine or impriso	acknowledge that any wi nment of not more than fi	Iful false statement made in this declaration is punishable under 18 U.S.C. 1001 /e (5) years, or both.
ASSIGNOR (INV	•	1 o 1 m. m.
Signature:		Date: 2/19/2020
Printed or Typed	Name:	Fan ZHANG



Attorney Docket No.: P19HS0010

## ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	Hongwei DUAN		hereins	after referred to	collect	ávely as
the assignor and inve	entor, has invented a cer					
POWER C		ND METHOD FOR 1	ERROR CORRECTION	CODE COM	PONE	NIS IN
on [ ] the specification	being altached hereto; naving been filed in the, as a of which was filed unde, the	Application Serial No(if applicable); r the Patent Cooperation	n Treaty on	, and	was	amended
hereinafter referred tapplication, includin	o as the assignee or app g any and all divisions:	dicant, is desirous of ac and continuations there	nc. of 3103 North First Str quiring the entire right, tit of, and in and to said inve- sues and prolongations the	ile and interest ntion and any a	n and t	o said
consideration paid hassigns, sells and trainterest in and to sai any and all patents assignce, and said as all divisions and coincluding any and all anywise arising from including any and assignce's successor	by said assignee to sai- msfers to said assignee, d application, including which may be granted to ssignee's successors and ontinuations thereof, as ill renewals, reissues and n or appertaining thereall renewals, reissues	I assignor, the receipt and said assignee's sure any and all divisions a herefor, including any assigns, to have, hold, at the said invention of prolongations thereof to, for and during the and prolongations thereighe and beneficial a n	on of One Dollar (\$1.00 of which is hereby acknown cessors and assigns, the indications thereof, and all renewals, reissues exercise and enjoy the said any and all patents with all the rights, power term or terms of any and eof, for the use and becamer as the said assignce.	owledged, said full and exclusi and in and to s and prolongat id application, i which may be ers, privileges a I all such pater nefit of said as	assignate and and investigations the including granted and advants whe is signed.	nor hereby it, fittle and ention and ereof; said ag any and if therefor, rantages in an granted, and said
	acts relating to the obt		request of said assignee, g of said patents, includin			
AND said a said application, and assigns, in accordan	d on any and all divisio	requests the Commissi ns and continuations th	oner of Patents and Trade ereof, to said assignee, ar	emarks to issue nd said assigned	Letters 's succ	Patent on essors and
			bove-identified application inventor of a claimed inventor of a cl			
	knowledge that any wi nent of not more than fi		de in this declaration is p	unishable unde	r 18 Ú	.S.C. 1001
ASSIGNOR (INVE	NTOR):					
Signature:	) torque	<u> </u>	Date:	2/19/	30	
Printed or Typed Na	me:	Hongwei DUAN				

**SK** hynix

1000.

Afterney Docket No.: P19HS0010

### ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Aman BHATIA	, hereinafter referred to collectively as
the assignor and inventor, has invented a certain improvement relating to	
POWER CONTROL DEVICE AND METHOD FOR ERROR C	ORRECTION CODE COMPONENTS IN
MEMORY SYSTEM	
[X] said application being attached hereto; [ ] said application having been filed in the United States Patent and Tradema	and was amended
AND WHEREAS <u>SK Hynix Memory Solutions America Inc. of 3103</u> hereinafter referred to as the assignee or applicant, is desirous of acquiring the application, including any and all divisions and continuations thereof, and in a which may be granted therefor, including any and all renewals, reissues and pr	entire right, title and interest in and to said nd to said invention and any and all patents
NOW THIS WITNESSETH, that for and in consideration of One consideration paid by said assignee to said assignor, the receipt of which assigns, sells and transfers to said assignee, and said assignee's successors an interest in and to said application, including any and all divisions and continuary and all patents which may be granted therefor, including any and all reneassignee, and said assignee's successors and assigns, to have, hold, exercise at all divisions and continuations thereof, and the said invention and any an including any and all renewals, reissues and prolongations thereof, with all t anywise arising from or appertaining thereto, for and during the term or terincluding any and all renewals, reissues and prolongations thereof, for the assignee's successors and assigns, in as ample and beneficial a manner as the enjoyed the same, if this assignment had not been made.	is hereby acknowledged, said assignor hereby id assigns, the full and exclusive right, title and lations thereof, and in and to said invention and lewals, reissues and prolongations thereof; said ad enjoy the said application, including any and id all patents which may be granted therefor, the rights, powers, privileges and advantages in times of any and all such patents when granted, as use and benefit of said assignee, and said
AND said assignor hereby agrees to perform, upon the request of assigns, any and all acts relating to the obtaining or to the asserting of said p and prolongations thereof.	said assignee, or said assignee's successors or eatents, including any and all renewals, reissues
AND said assignor authorizes and requests the Commissioner of Passaid application, and on any and all divisions and continuations thereof, to sa assigns, in accordance herewith.	
As an above-named inventor, I hereby declare that the above-ident made by me, and that I am the original inventor or an original joint inventor of	
I hereby acknowledge that any willful false statement made in this oby fine or imprisonment of not more than five (5) years, or both.	declaration is punishable under 18 U.S.C. 1001
ASSIGNOR (INVENTOR):	
Signature: Our Dute.	Date: 2 19 2020
Printed or Typed Name: Aman BHATIA	