

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3117188

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	DONG-WOOK KIM	11/07/2014
	SOO-YONG KANG	11/07/2014
RECEIVING PARTY DATA		
Name:	SK HYNIX INC.	
Street Address:	2091, GYEONGCHUNG-DAERO, BUBAL-EUB, ICHEON-SI	
City:	GYEONGGI-DO	
State/Country:	KOREA, REPUBLIC OF	
Name:	INDUSTRY-UNIVERSITY COOPERATION FOUNDATION HANYANG UNIVERSITY	
Street Address:	C/O HANYANG UNIVERSITY, 17 HAENGDANG-DONG, SEONGDONG-GU	
City:	SEOUL	
State/Country:	KOREA, REPUBLIC OF	
PROPERTY NUMBERS Total: 1		
Property Type	Number	
Application Number:	14549190	
CORRESPONDENCE DATA		
Fax Number:	(571)327-5452	
<i>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.</i>		
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Address Line 4:	VIENNA, VIRGINIA 22182	
ATTORNEY DOCKET NUMBER:	20140912.000	
NAME OF SUBMITTER:	JUN JEONG PARK	
SIGNATURE:	/Jun Jeong PARK/	
DATE SIGNED:	11/20/2014	
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 1		

PATENT

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

WHEREAS Kim, Dong-Wook and Kang, Soo-Yong, hereinafter referred to collectively as the assignors and inventors, have invented a certain improvement relating to

DATA PATTERN DETECTING DEVICE, SEMICONDUCTOR DEVICE INCLUDING THE SAME, AND OPERATING METHOD THEREOF.

☒ said application being attached hereto;

☐ said application having been filed in the United States Patent and Trademark Office on _____, as Application Serial No. _____, and was amended on _____ (if applicable);

☐ the specification of which was filed under the Patent Cooperation Treaty on _____, Serial No. _____, the United States of America being designated.

AND WHEREAS SK Hynix Inc., 2091, Gyeongchung-daero, Buhal-eub, Icheon-si, Gyeonggi-do, Republic of Korea and Industry-University Cooperation Foundation Hanyang University, c/o Hanyang University, 17 Haengdang-dong, Seongdong-gu, Seoul 133-791, Republic of Korea hereinafter referred to as the assignees or applicants, are 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 assignor, the receipt of which is hereby acknowledged, said assignor 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.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

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.

As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNORS (INVENTORS):

Signature: Dongwook Kim Date: 7 November 2014

Printed or Typed Name: Kim, Dong-Wook

Signature: Soyong Kang Date: 7 November 2014

Printed or Typed Name: Kang, Soo-Yong