

<b>PATENT ASSIGNMENT COVER SHEET</b>
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EPAS ID: PAT3923193

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DONG KEUN KIM	01/02/2014
HYUCK SANG YIM	01/02/2014
MASAHIRO TAKAHASHI	11/12/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SK HYNIX INC.
<b>Street Address:</b>	2091, GYEONGCHUNG-DAERO
<b>Internal Address:</b>	BUBAL-EUB
<b>City:</b>	ICHEON-SI, GYEONGGI-DO
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	17336
<b>Name:</b>	KABUSHIKI KAISHA TOSHIBA
<b>Street Address:</b>	1-1, SHIBAURA 1-CHOME
<b>Internal Address:</b>	MINATO-KU
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	105-8001
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14811237
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Email:</b>	tmcdonald@hhpatent.com
<b>Correspondent Name:</b>	HOLTZ, HOLTZ, & VOLEK PC
<b>Address Line 1:</b>	630 NINTH AVE
<b>Address Line 2:</b>	SUITE 1010
<b>Address Line 4:</b>	NEW YORK, NEW YORK 10036
<b>ATTORNEY DOCKET NUMBER:</b>	13347C

<b>NAME OF SUBMITTER:</b>	TAYLER MCDONALD
<b>SIGNATURE:</b>	/Tayler McDonald/
<b>DATE SIGNED:</b>	06/17/2016
<b>Total Attachments: 4</b> source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif	

ASSIGNMENT

(13S0228)

In consideration of value received, I, having a residence as stated below above my name, the sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of an invention described in an application for United States patent entitled:

RESISTANCE CHANGE MEMORY

have sold and assigned and do hereby sell and assign to

SK hynix Inc.

a Japanese corporation, having a business address at  
2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi -do, Korea;

its successors, assigns or nominees, hereinafter referred to as "Assignee", my entire right, title and interest in and to said invention as disclosed, shown and described in said United States patent application:

(check one)  executed concurrently herewith  
 executed on  
 Application No. 14/018,011 , filed September 4, 2013;

and in and to all applications for patent and patents for invention including all divisions, reissues, continuations, substitutes and extensions thereof and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications; and I authorize and request any official whose duty is to issue patents, to issue any patent on said invention or resulting therefrom to said Assignee, and I agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives all facts known to me respecting said invention and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, continued prosecution, reissue, or other applications, make all rightful oaths and declarations, and generally do everything possible to aid said Assignee to obtain and enforce proper patent protection for said invention.

I hereby grant the following law firm the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the Rules of the U.S. Patent and Trademark Office for recordation of this document.

Holtz, Holtz, Goodman & Chick PC, 220 Fifth Avenue - 16th Floor, New York, N.Y.  
10001-7708

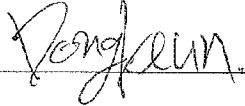
ASSIGNMENT

(13S0228)

Residence Address: Icheon-si, Gyeonggi-do, Korea

Mailing Address: c/o SK hynix Inc., 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Korea

Citizenship: Republic of Korea

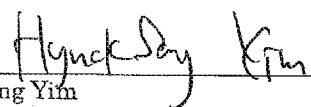
  
Dong Keun Kim

Date: January 02, 2014

Residence Address: Seoul, Korea

Mailing Address: c/o SK hynix Inc., 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Korea

Citizenship: Republic of Korea

  
Hyuck Sang Yim

Date: January 02, 2014

13S0228-0228

ASSIGNMENT

ACG065141-USA-B  
(13S0228)

In consideration of value received, I, having a residence as stated below above my name, the sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of an invention described in an application for United States patent entitled:

RESISTANCE CHANGE MEMORY

have sold and assigned and do hereby sell and assign to

KABUSHIKI KAISHA TOSHIBA

a Japanese corporation, having a business address at  
1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan;

its successors, assigns or nominees, hereinafter referred to as "Assignee", my entire right, title and interest in and to said invention as disclosed, shown and described in said United States patent application:

(check one)  executed concurrently herewith  
 executed on \_\_\_\_\_ ;  
 Application No. 14/018,011 , filed September 4, 2013;

and in and to all applications for patent and patents for invention including all divisions, reissues, continuations, substitutes and extensions thereof and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications; and I authorize and request any official whose duty is to issue patents, to issue any patent on said invention or resulting therefrom to said Assignee, and I agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives all facts known to me respecting said invention and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, continued prosecution, reissue, or other applications, make all rightful oaths and declarations, and generally do everything possible to aid said Assignee to obtain and enforce proper patent protection for said invention.

I hereby grant the following law firm the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the Rules of the U.S. Patent and Trademark Office for recordation of this document.

Holtz, Holtz, Goodman & Chick PC, 220 Fifth Avenue - 16th Floor, New York, N.Y.  
10001-7708

ASSIGNMENT

ACG065141-USA-B  
(13S0228)

Residence Address: Seongnam-si, Gyeonggi-do, Korea

Mailing Address: c/o Intellectual Property Division, Toshiba Corporation, 1-1, Shibaura 1-chome,  
Minato-ku, Tokyo 105-8001, Japan

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Masahiro Takahashi

Nov. 12, 2013  
Date: