

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Keith Chan</td> <td>03/15/2013</td> </tr> <tr> <td>Alexey Vasilyevitch Khvalkovskiy</td> <td>03/15/2013</td> </tr> <tr> <td>Dmytro Apalkov</td> <td>03/15/2013</td> </tr> </tbody> </table>		Name	Execution Date	Keith Chan	03/15/2013	Alexey Vasilyevitch Khvalkovskiy	03/15/2013	Dmytro Apalkov	03/15/2013		
Name	Execution Date										
Keith Chan	03/15/2013										
Alexey Vasilyevitch Khvalkovskiy	03/15/2013										
Dmytro Apalkov	03/15/2013										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Sumsung Electronics Co., LTD.</td> </tr> <tr> <td>Street Address:</td> <td>129, Samsung-ro, Yeongtong-gu</td> </tr> <tr> <td>City:</td> <td>Suwon-si, Gyeonggi-do</td> </tr> <tr> <td>State/Country:</td> <td>KOREA, REPUBLIC OF</td> </tr> <tr> <td>Postal Code:</td> <td>443-742</td> </tr> </table>		Name:	Sumsung Electronics Co., LTD.	Street Address:	129, Samsung-ro, Yeongtong-gu	City:	Suwon-si, Gyeonggi-do	State/Country:	KOREA, REPUBLIC OF	Postal Code:	443-742
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PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13839672</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13839672						
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CORRESPONDENCE DATA											
<p>Fax Number:</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 650-318-3374</p> <p>Email: patents@convergentlaw.com</p> <p>Correspondent Name: Convergent Law Group LLP</p> <p>Address Line 1: P.O. BOX 1329</p> <p>Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94043</p>											
ATTORNEY DOCKET NUMBER:	GRAN040US										
NAME OF SUBMITTER:	Janyce R. Mitchell										
	This document serves as an Oath/Declaration (37 CFR 1.63).										
<p>Total Attachments: 3</p> <p>source=GRAN040US_RecordationCoverSheet#page1.tif</p> <p>source=GRAN040US_Assignment#page1.tif</p> <p>source=GRAN040US_Assignment#page2.tif</p>											

OP \$40.00 13839672

RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Keith ChanAlexey
Alexey Vasilyevitch Khvalkovskiy
Dmytro Apalkov

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 3/15/2013

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Sumsung Electronics Co., LTD.

Internal Address: _____

Street Address: 129, Samsung-ro, Yeongtong-gu

City: Suwon-si

State: Gyeonggi-do

Country: Korea Zip: 443-742

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☒ This document serves as an Oath/Declaration (37 CFR 1.63).

A. Patent Application No.(s)

B. Patent No.(s)

13/839,672

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Convergent Law Group LLP

Internal Address: Suite 400

Street Address: 475 N. Whisman Road

City: Mountain View

State: CA Zip: 94043

Phone Number: 650-318-3374

Docket Number: GRAN040US

Email Address: patents@convergentlaw.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- ☐ Authorized to be charged to deposit account
☒ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number _____

Authorized User Name _____

9. Signature: /Janyce R. Mitchell/Reg. No. 40095

March 15, 2013

Signature

Date

Janyce R. Mitchell

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

3

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Title of Invention: **DIFFUSIONLESS TRANSFORMATIONS IN MTJ STACKS**

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

☒ US Application or PCT Application No. 13/839,672 filed on 3/15/2013

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor (if only one name is listed below) or an original joint inventor (if plural names are listed below) of the subject matter which is claimed.

I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

For good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned inventor(s), do hereby sell, assign, and transfer to: Samsung Electronics Co., LTD., a corporation existing under the laws of the state of Delaware, having a principal place of business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742 ("Assignee"), its successors, assigns, and legal representatives, the entire right, title and interest for the United States and all foreign countries, in and to any and all improvements which are disclosed in the above-identified application and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application; and

Each of the undersigned inventors agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to the undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives; and

Covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

And the Assignors hereby authorize and request the attorneys and agents to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and acknowledge that willful false statements and the like so made are punishable under Section 1001 of Title 18 of the United States Code by fine or imprisonment of not more than five (5) years, or both.

DECLARATION FOR PATENT APPLICATION (continued)

Full Name of Inventor: Keith Chan

[Signature]
Signature

3/15/2013
Date

Full Name of Inventor: Alexey Vasilyevitch Khvalkovskiy

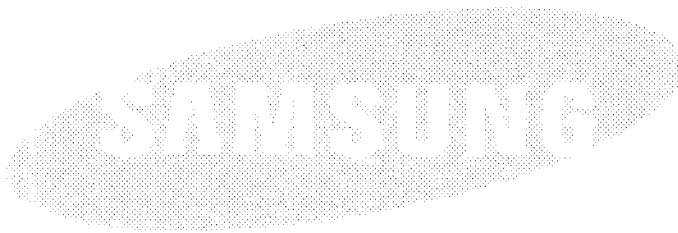
[Signature]
Signature

03/15/2013
Date

Full Name of Inventor: Dmytro Apalkov

[Signature]
Inventor's Signature

03/15/2013
Date



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