

## PATENT ASSIGNMENT

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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>Adrian E. Ong</td> <td>03/26/2013</td> </tr> <tr> <td>Alexey Vasilyevitch Khvalkovskiy</td> <td>03/26/2013</td> </tr> <tr> <td>Dmytro Apalkov</td> <td>03/26/2013</td> </tr> </tbody> </table>		Name	Execution Date	Adrian E. Ong	03/26/2013	Alexey Vasilyevitch Khvalkovskiy	03/26/2013	Dmytro Apalkov	03/26/2013		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Samsung Electronics Co., LTD.</td> </tr> <tr> <td>Street Address:</td> <td>129 Samsung-ro, Yeongtong-gu, Suwon-si</td> </tr> <tr> <td>City:</td> <td>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:	Samsung Electronics Co., LTD.	Street Address:	129 Samsung-ro, Yeongtong-gu, Suwon-si	City:	Gyeonggi-do	State/Country:	KOREA, REPUBLIC OF	Postal Code:	443-742
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PROPERTY NUMBERS Total: 1											
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Application Number:	13851274										
CORRESPONDENCE DATA											
<p>Fax Number: 6503183374  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 6503183374        Email: patents@convergentlaw.com        Correspondent Name: Convergent Law Group LLP        Address Line 1: 475 N. Whisman Road, Suite 400        Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94043</p>											
ATTORNEY DOCKET NUMBER:	GRAN037SU										
NAME OF SUBMITTER:	Debbie Nishihara										
	This document serves as an Oath/Declaration (37 CFR 1.63).										
<p>Total Attachments: 2        source=GRAN037US_Assignment_Asfiled#page1.tif        source=GRAN037US_Assignment_Asfiled#page2.tif</p>											

OP \$40.00 13851274

**DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION**

Title of Invention: **MEMORY ARCHITECTURE FOR SPIN ORBIT ASSISTED SWITCHING STT-MRAM**

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. 13/851,274 filed on 3/27/2013

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: Adrian E. Ong

  
Signature


3/26/2013  
Date

Full Name of Inventor: Alexey Vasilyevitch Khvalkovskiy

  
Signature

03/26/2013  
Date

Full Name of Inventor: Dmytro Apalkov

  
Inventor's Signature

03/26/2013  
Date

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