## 503478058 09/14/2015

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3524683

SUBMISSION TYPE:		NEW ASSIGNMEN	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY	DATA				
		Name	Name		
SUNG HYUN JO				12/16/2014	
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Property Typ Application Number:		Number 14611022			
Application Number: 1461		14611022			
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NAME OF SUBMITTER:		MATTHEW F. CLAF	MATTHEW F. CLAPPER		
SIGNATURE:		/Matthew F. Clapper	/Matthew F. Clapper/		
DATE SIGNED:		09/14/2015	09/14/2015		
Total Attachments: 2					
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## DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby declare that:

This declaration is directed to the application attached hereto, or if not attached hereto, the below-identified application:

Title of Invention:	HETERO-SWITCHING LAYER IN A RRAM DEVICE AND METHOD		
Filing Date:	June 17, 2013		
Application No.:	13/920,021		
Attorney Docket No.:	A936SP-003011US		

The application was made or authorized to be made by me;

I believe 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 statements 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.

WHEREAS, the below named individual(s), hereinafter referred to as "Assignors," are the inventor(s) of the invention described and set forth in the above-identified application for United States Letters Patent:

WHEREAS, Crossbar, Inc., 3200 Patrick Henry Drive, Suite 110, Santa Clara, CA 95054, hereinafter referred to as "ASSIGNEE," is desirous of acquiring ASSIGNORS' interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all their right, title and interest in and to the said invention and application including any corresponding foreign application, and in and to any Letters Patent which may bereafter be granted on the same in the United States and any corresponding foreign application, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in Assignee, or Assignee's successors and assigns.

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Assignors hereby authorize and request AMPACC Law Group, PLLC, 6100 219th Street SW, Suite 580, Mountlake Terrace, WA 98043, to insert herein above the title, application number, and filing date of said application when known.

IN TESTIMONY WHEREOF, each below named inventor, collectively Assignors, has signed on the dates indicated.

12/16/2014 Date:

Suby und Inventor's Name: Sung Hyun JO

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**RECORDED: 09/14/2015**