

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4929738

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TAKASHI KOBAYASHI	03/19/2018
YOICHI MINEMURA	03/26/2018
EIETSU TAKAHASHI	03/22/2018
MASAKI KONDO	03/26/2018
DAISUKE HAGISHIMA	03/19/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TOSHIBA MEMORY CORPORATION
<b>Street Address:</b>	1-1, SHIBAURA 1-CHOME
<b>City:</b>	MINATO-KU, TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	105-0023
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15916404
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)413-2220
<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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<b>ATTORNEY DOCKET NUMBER:</b>	512054US
<b>NAME OF SUBMITTER:</b>	JUNG-YON KIM
<b>SIGNATURE:</b>	/Jung-Yon Kim/
<b>DATE SIGNED:</b>	04/24/2018
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 2</b>	

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

<b>Title of Invention</b>	<b>SEMICONDUCTOR MEMORY DEVICE</b>
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As the below named inventor, I hereby declare that:  
 This declaration  The attached application, or  
 is directed to:  United States application or PCT international application number 15/916,404  
 filed on March 9, 2018

The above-identified 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.

**WHEREAS, Toshiba Memory Corporation**  
 (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 105-0023, Japan  
 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, I agree that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

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.

**LEGAL NAME OF INVENTOR**

Inventor: (1) Takashi Kobayashi Date: March 19, 2018  
 Signature: Takashi Kobayashi

<b>SUPPLEMENTAL SHEET FOR DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> Supplemental Sheet (for PTO/AIA/08,09) <span style="float: right;">Page 2 of 2</span>
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Legal Name of Additional Joint Inventor, if any	
(2) Yoichi Minemura	
Inventor's Signature <i>Yoichi Minemura</i>	Date(Optional) <i>March 26, 2018</i>
Legal Name of Additional Joint Inventor, if any	
(3) Eietsu Takahashi	
Inventor's Signature <i>Eietsu Takahashi</i>	Date(Optional) <i>March 22, 2018</i>
Legal Name of Additional Joint Inventor, if any	
(4) Masaki Kondo	
Inventor's Signature <i>Masaki Kondo</i>	Date(Optional) <i>March 26, 2018</i>
Legal Name of Additional Joint Inventor, if any	
(5) Daisuke Hagishima	
Inventor's Signature <i>Daisuke Hagishima</i>	Date(Optional) <i>March 19, 2018</i>