

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5519046

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MIKIHICO ITO	04/10/2019
MASARU KOYANAGI	04/11/2019
MASAFUMI NAKATANI	04/17/2019
SHINYA OKUNO	04/17/2019
SHIGEKI NAGASAKA	04/11/2019
MASAHIRO YOSHIHARA	04/15/2019
AKIRA UMEZAWA	04/17/2019
SATOSHI TSUKIYAMA	04/11/2019
KAZUSHIGE KAWASAKI	04/11/2019
<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>
Application Number:	16298576
<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>	
<b>Phone:</b>	(703) 413-3000
<b>Email:</b>	wsmith@oblon.com
<b>Correspondent Name:</b>	OBLON, ET AL.
<b>Address Line 1:</b>	1940 DUKE STREET
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<b>ATTORNEY DOCKET NUMBER:</b>	521093US
<b>NAME OF SUBMITTER:</b>	WILLIAM SMITH

<b>SIGNATURE:</b>	/William Smith/
<b>DATE SIGNED:</b>	05/13/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 4</b> source=521093USAssignment#page1.tif source=521093USAssignment#page2.tif source=521093USAssignment#page3.tif source=521093USAssignment#page4.tif	

**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>MEMORY DEVICE</b>
<p>As the below named inventor, I hereby declare that:  This declaration <input checked="" type="checkbox"/> The attached application, or  is directed to: <input type="checkbox"/> United States application or PCT international application number <u>PCT/JP2017/011784</u>  filed on <u>March 23, 2017</u>.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p><b>WHEREAS, Toshiba Memory Corporation</b></p> <p>(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;</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
<b>LEGAL NAME OF INVENTOR</b>	
Inventor: <u>(1) Mikihiko Ito</u>	Date: <u>April 10, 2019</u>
Signature: <u>Mikihiko Ito</u>	

SUPPLEMENTAL SHEET FOR DECLARATION	ADDITIONAL INVENTOR(S)
	Supplemental Sheet (for PTO/AIA/08,09) Page 2 of 2

Legal Name of Additional Joint Inventor, if any	
(2) Masaru Koyanagi	
Inventor's Signature Masaru Koyanagi	Date(Optional) April 11, 2019
Legal Name of Additional Joint Inventor, if any	
(3) Masafumi Nakatani	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(4) Shinya Okuno	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(5) Shigeki Nagasaka	
Inventor's Signature Shigeki Nagasaka	Date(Optional) April 11, 2019
Legal Name of Additional Joint Inventor, if any	
(6) Masahiro Yoshihara	
Inventor's Signature Masahiro Yoshihara	Date(Optional) April 15, 2019
Legal Name of Additional Joint Inventor, if any	
(7) Akira Umezawa	
Inventor's Signature Akira Umezawa	Date(Optional) Apr. 17, 2019
Legal Name of Additional Joint Inventor, if any	
(8) Satoshi Tsukiyama	
Inventor's Signature Satoshi Tsukiyama	Date(Optional) April 11, 2019
Legal Name of Additional Joint Inventor, if any	
(9) Kazushige Kawasaki	
Inventor's Signature 川崎 一茂	Date(Optional) Apr/11/2019

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Legal Name of Additional Joint Inventor, if any	
(2) <b>Masaru Koyanagi</b>	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(3) <b>Masafumi Nakatani</b>	
Inventor's Signature <i>Masafumi Nakatani</i>	Date(Optional) <i>Apr. 17, 2019</i>
Legal Name of Additional Joint Inventor, if any	
(4) <b>Shinya Okuno</b>	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(5) <b>Shigeki Nagasaka</b>	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(6) <b>Masahiro Yoshihara</b>	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(7) <b>Akira Umezawa</b>	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(8) <b>Satoshi Tsukiyama</b>	
Inventor's Signature	Date(Optional)
Legal Name of Additional Joint Inventor, if any	
(9) <b>Kazushige Kawasaki</b>	
Inventor's Signature	Date(Optional)

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## ADDITIONAL INVENTOR(S)

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Page 2 of 2

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(2) Masaru Koyanagi

Inventor's  
Signature

Date(Optional)

Legal Name of Additional Joint Inventor, if any

(3) Masafumi Nakatani

Inventor's  
Signature

Date(Optional)

Legal Name of Additional Joint Inventor, if any

(4) Shinya Okuno

Inventor's  
Signature*Shinya Okuno*Apr. 17, 2019  
Date(Optional)

Legal Name of Additional Joint Inventor, if any

(5) Shigeki Nagasaka

Inventor's  
Signature

Date(Optional)

Legal Name of Additional Joint Inventor, if any

(6) Masahiro Yoshihara

Inventor's  
Signature

Date(Optional)

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(7) Akira Umezawa

Inventor's  
Signature

Date(Optional)

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(8) Satoshi Tsukiyama

Inventor's  
Signature

Date(Optional)

Legal Name of Additional Joint Inventor, if any

(9) Kazushige Kawasaki

Inventor's  
Signature

Date(Optional)