### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3959111

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KOTARO NODA	01/22/2016
KYOKO NODA	01/22/2016
AYA MINEMURA	01/22/2016
KENJI SAWAMURA	01/29/2016

#### **RECEIVING PARTY DATA**

Name:	KABUSHIKI KAISHA TOSHIBA
Street Address:	1-1, SHIBAURA 1-CHOME, MINATO-KU
City:	TOKYO
State/Country:	JAPAN

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15047819

#### CORRESPONDENCE DATA

Fax Number: (703)413-2220

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.

Phone: (703) 413-3000 Email: jhorn@oblon.com OBLON, ET AL. **Correspondent Name:** Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	467490US20
NAME OF SUBMITTER:	JENNA HORN
SIGNATURE:	/Jenna Horn/
DATE SIGNED:	07/13/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

#### **Total Attachments: 4**

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Title of	SEMICONDUCTOR MEMORY DEVICE
Invention	SEMICONDUCTOR MEMORI DEVICE
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
The above-identified	d application was made or authorized to be made by me.
I believe that I am th	e original inventor or an original joint inventor of a claimed invention in the application.
WHEREAS, Kabu	shiki Kaisha Toshiba
<u>lapan</u> , is desirous o	to as "ASSIGNEE") having places of business at: 1-1. Shibaura 1-chome, Minato-ku, Tokyo, of acquiring the entire right, title and interest in and to said invention and in and to any Letters granted therefore in the United States and its territorial possessions and in any and all foreign
acknowledged, and it said ASSIGNEE, the and in all foreign con other relevant Intern- interest in and to an	ORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto a full and exclusive right to the said invention in the United States and its territorial possessions untries (including the right to claim priority under the terms of the International Convention and ational Treaties and Arrangements from the aforesaid application) and the entire right, title and may and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, ewals thereof.
any and all foreign of assignee of my entire (his) successors and	e and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the eright, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its assigns, to the full end of the term for which said Letters Patent may be granted, as fully and 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 acknowle by fine or imprisonme	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 ent of not more than five (5) years, or both.
LEGAL NAME OF I	······································
Inventor: Kotaro No Signature:	oda Date: Jan 22. 2016. taro NODA.

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention	SEMICONDUCTOR MEMORY DEVICE
As the below name	d inventor, I hereby declare that:
f	The attached application, or
is directed to:	United States application or PCT international application number
The above-identifie	d application was made or authorized to be made by me.
I believe that I am t	he original inventor or an original joint inventor of a claimed invention in the application.
(hereinafter referred Japan , is desirous	ushiki Kaisha Toshiba  I to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, of acquiring the entire right, title and interest in and to said invention and in and to any Letters granted therefore in the United States and its territorial possessions and in any and all foreign
acknowledged, and said ASSIGNEE, th and in all foreign co other relevant Inter- interest in and to an	ORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto e full and exclusive right to the said invention in the United States and its territorial possessions untries (including the right to claim priority under the terms of the International Convention and national Treaties and Arrangements from the aforesaid application) and the entire right, title and may and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
any and all foreign assignee of my entir (his) successors and	te and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the e right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its assigns, to the full end of the term for which said Letters Patent may be granted, as fully and would have been held by me had this Assignment and sale not been made.
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by fine or imprisonm	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 lent of not more than five (5) years, or both.
LEGAL NAME OF	INVENTOR
Inventor: Kyoko N	9001 - 10
Signature: Kyo	CO NODA

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P. ATTORNEYS AT LAW

1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Invention	SEMICONDUCTOR MEMORY DEVICE
As the below name	d inventor, I hereby declare that:
This declaration 🗵	The attached application, or
is directed to:	United States application or PCT international application number filed on
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acknowledged, and said ASSIGNEE, th and in all foreign co other relevant Inter- interest in and to a	FORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto the full and exclusive right to the said invention in the United States and its territorial possessions countries (including the right to claim priority under the terms of the International Convention and national Treaties and Arrangements from the aforesaid application) and the entire right, title and may and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
any and all foreign assignee of my enti- (his) successors and	te and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the re right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its assigns, to the full end of the term for which said Letters Patent may be granted, as fully and 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 acknowl by fine or imprisonn	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 acnt of not more than five (5) years, or both.
LEGAL NAME OF	INVENTOR
Inventor: Aya MI	VEMURA Date: Jan 22, 2016
Signature:	ya Minemura

OBLON, McCLEILAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Invention	SEMICONDUCTOR MEMORY DEVICE
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This declaration 🗵	The attached application, or
is directed to:	United States application or PCT international application number
The above-identifie	d application was made or authorized to be made by me.
I believe that I am th	ne original inventor or an original joint inventor of a claimed invention in the application.
(hereinafter referred <u>Japan</u> , is desirous o	ushiki Kaisha Toshiba I to as "ASSIGNEE") having places of business at: <u>1-1. Shibaura 1-chome, Minato-ku, Tokyo,</u> of acquiring the entire right, title and interest in and to said invention and in and to any Letters granted therefore in the United States and its territorial possessions and in any and all foreign
acknowledged, and said ASSIGNEE, the and in all foreign co- other relevant Interna- interest in and to an	ORE, in consideration of the sum of FTVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto e full and exclusive right to the said invention in the United States and its territorial possessions untries (including the right to claim priority under the terms of the International Convention and lational Treaties and Arrangements from the aforesaid application) and the entire right, title and may and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
any and an roreign assignee of my entire (his) successors and	e and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the e right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its assigns, to the full end of the term for which said Letters Patent may be granted, as fully and would have been held by me had this Assignment and sale not been made.
Further, I agree to respecting said invectoring said invectoring said Letters Prossible to aid said.	that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me ention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, ate, renewal and reissue applications, execute all necessary assignment papers to cause any and latent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said sed States and its territorial possessions and in any and all foreign countries.
I hereby acknowle by fine or imprisonm	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 ent of not more than five (5) years, or both.
LEGAL NAME OF	
Inventor: Kenji SA	WAMURA Pang Sawanaga Date: Dan 29 20/6
Signature:	
	·

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

1048100101 RECORDED: 07/13/2016 **PATENT** 

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