01/19/2017 504186056

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4232731

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KENTARO IKEDA	12/27/2016
HIROSHI MOCHIKAWA	12/26/2016
ATSUHIKO KUZUMAKI	12/26/2016

RECEIVING PARTY DATA

Name:	KABUSHIKI KAISHA TOSHIBA
Street Address:	1-1, Shibaura 1-chome, Minato-Ku
City:	Tokyo
State/Country:	Japan
Postal Code:	105-8001

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15386201

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.

(703) 413-3000 Phone:

Email: mvukovic@oblon.com **Correspondent Name:** OBLON, ET AL.

Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	481369US
NAME OF SUBMITTER:	MARA VUKOVIC
SIGNATURE:	/Mara Vukovic/
DATE SIGNED:	01/19/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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> **PATENT REEL: 041016 FRAME: 0069** 504186056

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

Title of SEMICONDUCTOR DEVICE Invention		
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 PCT/JP2015/076176 filed on September 15, 2015 .		
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, Kabushiki Kaisha Toshiba (bereinafier referred to as "ASSIGNEE") having places of business at: 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001 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: Kentaro IKEDA Date: December 27, 20/6		
Signature: Unata or Dheda.		

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
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ALEXANDRIA, VIRGINIA 22314

PATENT REEL: 041016 FRAME: 0070

DECLARATION (37 CFR L63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

litte of Invention	SEMICONDUCTOR 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 a filed on September 15, 2015	application number PCT/JP2015/076176
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 o	of a claimed invention in the application.
(hereinafter referred	ushiki Kaisha Toshiba I to as "ASSIGNEE") having places of business desirous of acquiring the entire right, title and in may be granted therefore in the United States ar	nterest in and to said invention and in and to any
acknowledged, and said ASSIGNEE, the and in all foreign or other relevant Inter- interest in and to a	FORE, in consideration of the sum of FIVE DO for other good and valuable consideration, I, by he full and exclusive right to the said invention in buntries (including the right to claim priority undenational Treaties and Arrangements from the afor my and all Letters Patent which may be granted any and all foreign countries and in and to anewals thereof.	these presents do sell, assign and transfer unto n the United States and its territorial possessions for the terms of the International Convention and presaid application) and the entire right, title and I therefor in the United States and its territorial
any and all foreign assignee of my enti (his) successors and	ze and request the Patent Office Officials in the to countries to issue any and all of said Letters Pater re right, title and interest in and to the same, for the dissigns, to the full end of the term for which so would have been held by me had this Assignment	atent, when granted, to said ASSIGNEE as the the sole use and behoof of said ASSIGNEE, its said Letters Patent may be granted, as fully and
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 acknow by fine or imprisonr	ledge that any willful false statement made in this nent of not more than five (5) years, or both.	s declaration is punishable under 18 U.S.C. 1001
LEGAL NAME OF	INVENTOR	
Inventor: Hiroshi	MOCHIKAWA	Date: December 26, 2016
Signature: 🕠	rohi Modribowa	

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PATENT REEL: 041016 FRAME: 0071

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

Title of Invention	SEMICONDUCTOR DEVICE	
As the below name	f inventor, I hereby declare that:	
This declaration	The attached application, or	
is directed to:	United States application or PCT international application number PCT/JP2015/076176 filed on September 15, 2015	
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.	
WHEREAS, Kabushiki Kaisha Toshiba (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001 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: Atsubik	OKUZUMAKI Date: December 26, 2016	
Signature: Q	suhiko Huzumaki	

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> PATENT REEL: 041016 FRAME: 0072

RECORDED: 01/19/2017