### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3247143

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
TAKESHI TAKAGI	02/23/2015
MASAKI YAMATO	02/25/2015
HIROYUKI ODE	02/23/2015
TAKESHI YAMAGUCHI	02/24/2015
TOSHIHARU TANAKA	02/24/2015

#### **RECEIVING PARTY DATA**

Name:	KABUSHIKI KAISHA TOSHIBA
Street Address:	1-1, SHIBAURA 1-CHOME
City:	MINATO-KU, TOKYO
State/Country:	JAPAN
Postal Code:	105-8001

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

Property Type	Number
Application Number:	14635448

### **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: dtudman@oblon.com

Correspondent Name: OBLON, ET AL.

Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	449814US
NAME OF SUBMITTER:	DALIBOR TUDMAN
SIGNATURE:	/Dalibor Tudman/
DATE SIGNED:	03/02/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).
T. 140 1	

Total Attachments: 5

PATENT REEL: 035067 FRAME: 0219



PATENT REEL: 035067 FRAME: 0220

	OF COMPOSITION OF THE
Title of Invention	NONVOLATILE MEMORY DEVICE AND METHOD OF CONTROLLING THE SAME
As the helow name	ad inventor, I hereby declare that:
	The attached application, or
1. discarded to	United States application or PCT international application number
	filed on
The above identifi	ied 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.
	1
(hereinafter referr 105-8001, JAPAN Letters Patent that	red to as "ASSIGNEE") having places of business at
acknowledged, an ASSIGNEE, the all foreign countr relevant Internati in and to any and and in any and a	BFORB, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said full and exclusive right to the said invention in the United States and its territorial possessions and in eles (including the right to claim priority under the terms of the International Convention and other conal Treaties and Arrangements from the aforesaid application) and the entire right, title and interest and It Letters Patent which may be granted therefor in the United States and its territorial possessions all Letters Patent which may be granted therefor in the United States and its territorial possessions and its foreign countries and in and to any and all divisions, reissues, continuations, substitutions and
and all foreign of my entire rigi	prize and request the Patent Office Officials in the United States and its territorial possessions and any countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEB as the assignce but, title and interest in and to the same, for the sole use and behoof of said ASSIGNEB, its (his) saigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely lid have been held by me had this Assignment and sale not been made.
Further, I agg respecting said continuation, sul all of said Letter to aid said ASSI	ree that I will communicate to said ASSIGNEE or its (his) representatives any facts and the invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, invention, and reissue applications, execute all necessary assignment papers to cause any and structure, renewal and reissue applications, execute all necessary assignment papers to cause any and service to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible in GNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the same testing possessions and in any and all foreign countries.
I hereby ack by fine or impri	nowledge that any willful false statement made in this declaration is pumishable under 10 0.5.00 recommend of not more than five (5) years, or both.
LEGAL NAME	OF INVENTOR
Inventor: Tak	
Signature:	Jekochi Jakagi

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

Title of NONVOLATILE MEMORY DEVICE AND METHOD OF CONTROLLING THE
Invention SAME
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 filed on
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.
(hereinafter referred to as "ASSIGNER") having places of business at: 151. Sincapital Population and in and to any 105-8001, JAPAN, is desirous of acquiring the entire right, title and interest in and to said invention and in any and all foreign Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign
NOW, THEREFORE, in consideration of the sum of RIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do seil, assign and transfer unto said acknowledged, and for other good and valuable consideration, I, by these presents do seil, assign and transfer unto said acknowledged, and for other good and valuable consideration 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 Treatles and Arrangements from the aforesaid application) and the entire right, title and interest relevant International Treatles and Arrangements from the aforesaid application) and the entire right, title and interest relevant International Treatles and Arrangements from the aforesaid application) and its territorial possessions in and to any and all Lotters 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 ASSIGNER as the assignee and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNER, its (his) of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNER, 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 hous known to his respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, 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 overything possible all of said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in to all said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in
I hereby acknowledge that any willful false statement made in this declaration is punishable under 16 0.5.5. For by fine or imprisonment of not more than five (5) years, or both.
LEGAL NAME OF INVENTOR
Inventor: Masaki YAMATO  Date: Feb 25, 2015
Signature: MASaker Yumator.

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P. ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

	OF CONTROL INC. THE
Title of Invention	NONVOLATILE MEMORY DEVICE AND METHOD OF CONTROLLING THE SAME
As the below name	d inventor, I hereby declare that:
	The attached application, or
	United States application or PCT international application number
The above-identifi	ed 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, KA (hereinafter referre 105-8001, JAPAN Letters Patent that	BUSHIKI KAISHA TOSHIBA  d to as "ASSIGNEE") having places of business at: 1-1. Shibaura 1-chome, Minato-ku. Tokyo , is desirous of acquiring the entire right, title and interest in and to said invention and in and to any may be granted therefore in the United States and its territorial possessions and in any and all foreign
acknowledged, and ASSIGNEE, the fi all foreign country relevant internation in and to any and and in any and all represents thereof	FORB, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby if for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said all and exclusive right to the said invention in the United States and its territorial possessions and in es (including the right to claim priority under the terms of the International Convention and other and Treaties and Arrangements from the aforesaid application) and the entire right, title and interest all Letters Patent which may be granted therefor in the United States and its territorial possessions if foreign countries and in and to any and all divisions, reissues, continuations, substitutions and
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 and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE, its (his) 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. 100 by fine or imprisonment of not more than five (5) years, or both.	
LEGAL NAME	OF INVENTOR
Inventor: Hiroy	nykl ODB Date: Feb. 20, 20/5
	1. 0

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

		NONVOLATILE MEMORY DEVICE AND METHOD OF CONTROLLING THE
Inv	le of vention	SAME.
As	the below name	d inventor, I hereby declare that:
Th	is declaration	The attached application, or
		United States application or PCT international application number
Th	e above-identifi	ed application was made or authorized to be made by me.
16	elleve that I am	the original inventor or an original joint inventor of a claimed invention in the application.
		· · · · · · · · · · · · · · · · · · ·
(he 10 Le	ereinafter referre 5-8001, JAPAN etters Patent that	ed to as "ASSIGNEE") having places of business at: 1-1, Shipanta 1-2 planta and in and to any a be desirous of acquiring the entire right, title and interest in and to said invention and in and to any may be granted therefore in the United States and its territorial possessions and in any and all foreign may be granted therefore in the United States and its territorial possessions and in any and all foreign
all re in ar	knowledged, and SSIGNEB, the fill foreign countrilewant internation and to any and and in any and all	FORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby different order good and valuable consideration, I, by these presents do sell, assign and transfer unto said all and exclusive right to the said invention in the United States and its territorial possessions and in les (including the right to claim priority under the terms of the International Convention and other and Treaties and Atrangements from the aforesaid application) and the entire right, title and interest all Letters Patent which may be granted therefor in the United States and its territorial possessions all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and
O	nd all foreign co f my entire righ accessors and as	rize and request the Patent Office Officials in the United States and its territorial possessions and any untries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee it, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) signs, to the full end of the term for which said Letters Patent may be granted, as fully and entirely if have been held by me had this Assignment and sale not been made.
ro C a	Further, I agrees pecting said is continuation, subil of said Letters of aid said ASSIG	the that I will communicate to said ASSIGNEE or its (his) representatives any facts known to monitor, and testify in any legal proceeding, sign all lawful papers, execute all divisional, stitute, renewal and reissue applications, execute all necessary assignment papers to cause any and Patent to be issued to said ASSIGNEE, make all rightful outles, and, generally do everything possible Patent to be issued to said ASSIGNEE, make all rightful outles, and, generally do everything possible BNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in any life territorial possessions and in any and all foreign countries.
1	Y harabu nekn	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 comment of not more than five (5) years, or both.
Ī	LIGAL NAME	OF INVENTOR
1	nventor: Take	shi YAMAGUCHI Date: Feb. 24, 2015
		Cedi Yamaguki

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P. ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

10/08/1006861

Title of Invention	NONVOLATILE MEMORY DEVICE AND METHOD OF CONTROLLING THE SAME	
As the below name	d inventor, I hereby declare that:	
	The attached application, or	
	filed on	
The above-identific	ed 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 (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.		
and all foreign cou of my entire right successors and as as the same would	ize and request the Patent Office Officials in the United States and its territorial possessions and any untries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignce it, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) signs, to the full end of the term for which said Letters Patent may be granted, as fully and entirely have been held by me had this Assignment and sale not been made.	
Further, I agree that I will communicate to said ASSIGNEB 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 ASSIGNEB, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEB, 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.		
Thereby 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: Toshi	haru TANAKA Date: Feb. 24, 2015	
Signature: Jo.	shiharu Tanaka	

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P. ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

1048100686

**RECORDED: 03/02/2015** 

PATENT REEL: 035067 FRAME: 0225