504347935 05/02/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4394623

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SATOSHI SHIROTORI	04/07/2017
HIROAKI YODA	04/07/2017
YUICHI OHSAWA	04/07/2017
HIDEYUKI SUGIYAMA	04/07/2017
MARIKO SHIMIZU	04/07/2017
ALTANSARGAI BUYANDALAI	04/07/2017
NAOHARU SHIMOMURA	04/07/2017

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:	15449040

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: dgebremichael@oblon.com

Correspondent Name: OBLON, ET AL.

Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	501912US
NAME OF SUBMITTER:	DEJEN GEBREMICHAEL
SIGNATURE:	/Dejen Gebremichael/
DATE SIGNED:	05/02/2017

	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 7	
source=501912usAssign#page1.tif	
source=501912usAssign#page2.tif	
source=501912usAssign#page3.tif	
source=501912usAssign#page4.tif	
source=501912usAssign#page5.tif	
source=501912usAssign#page6.tif	
source=501912usAssign#page7.tif	

Title of MAGNETIC MEMORY 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 15/449,040 filed on March 3, 2017
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 (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, Iapan, 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: Satoshi SHIROTORI Date: Apr. 7, 2017
Signature: Satowh Shirestown

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

ALEXANDRIA, VIRGINIA 22314

Title of Invention MAGNETIC MEMORY 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 15/449,040 filed on March 3, 2017 .
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 (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 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: Hiroaki YODA Date: Date:
Signature:

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention	MAGNETIC MEMORY 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 15/449,040 filed on March 3, 2017
The above-identified	dapplication 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.
(hereinafter referred Japan, is desirous of	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, the and in all foreign co other relevant Interninterest 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 ational Treaties and Arrangements from the aforesaid application) and the entire right, title and many 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 assignee of my entir (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.
respecting said invector continuation, substitt all of said Letters Possible 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, ute, renewal and reissue applications, execute all necessary assignment papers to cause any and eatent 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 ed States and its territorial possessions and in any and all foreign countries.
	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 tent of not more than five (5) years, or both.
LEGAL NAME OF	
Inventor: Yuichi C	
Signature:	This offsman

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of MAGNETIC MEMORY DEVICE nvention
As the below named inventor, I hereby declare that:
This declaration [] The attached application, or
s directed to: United States application or PCT international application number 15/449,040 filed on March 3, 2017
he above-identified application was made or authorized to be made by me.
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 apan, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letter latent that may be granted therefore in the United States and its territorial possessions and in any and all foreign ountries;
NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is herebecknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer untaid ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possession and in all foreign countries (including the right to claim priority under the terms of the International Convention and their relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and another relevant International International Treaties and in any and all Letters Patent which may be granted therefor in the United States and its territoria ossessions and in any and all foreign countries and in and to any and all divisions, reissues, continuation abstitutions and renewals thereof.
I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions an any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the signee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, in his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully an antirely 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 expecting 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 an all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everythin ossible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said evention 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 y fine or imprisonment of not more than five (5) years, or both.
EGAL NAME OF INVENTOR
ventor: Hideyuki SUGIYAMA Date: April 7, 2017
ignature: Hidemiki Snamama

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention MAGNETIC MEMORY 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 15/449,040 filed on March 3, 2017
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 (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 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: Mariko SHIMIZU Date: Apr. 7, 2017
Signature: Mariko Shimizu

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

Title of MAGNETIC MEMORY 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 15/449,040 filed on March 3, 2017
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 (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 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: Altansargai BUYANDALAI Date: 2017/4/7
Inventor: Altansargai BUYANDALAI Date: 2011/417 Signature: Amon a Cypus

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of MAGNETIC MEMORY 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 15/449,040 filed on March 3, 2017
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 (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 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: Naoharu SHIMOMURA Date: Apr. 7, 2017
Signature: Kuch

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> **PATENT** REEL: 042212 FRAME: 0584

RECORDED: 05/02/2017