#### 505137768 10/11/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5184532

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KEIJU YAMADA	09/07/2018
MAKOTO SANO	09/07/2018
MAKOTO HIGAKI	09/07/2018
KOH HASHIMOTO	09/07/2018

#### **RECEIVING PARTY DATA**

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

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

Property Type	Number
Application Number:	16126189

#### **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:	516404US
NAME OF SUBMITTER:	DEJEN GEBREMICHAEL
SIGNATURE:	/Dejen Gebremichael/
DATE SIGNED:	10/11/2018

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

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PATENT 505137768 REEL: 047138 FRAME: 0027

Title of Invention	WIRELESS MODULE, PRINTED CIRCUIT BOARD, AND METHOD
As the below named in	ventor, I hereby declare that:
is directed to: U	ne attached application, or nited States application or PCT international application numbereed on
The above-identified a	pplication 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.
having a place of businentire right, title and in	SHIKI KAISHA TOSHIBA (hereinafter referred to as "ASSIGNEE") iness at: 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, Japan is desirous of acquiring the atterest in and to said invention and in and to any Letters Patent that may be granted therefore dist territorial possessions and in any and all foreign countries;
acknowledged, and for said ASSIGNEE, the f and in all foreign coun other relevant Internati interest in and to any	RE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby other good and valuable consideration, I, by these presents do sell, assign and transfer unto ull and exclusive right to the said invention in the United States and its territorial possessions tries (including the right to claim priority under the terms of the International Convention and ional Treaties and Arrangements from the aforesaid application) and the entire right, title and and all Letters Patent which may be granted therefor in the United States and its territorial by and all foreign countries and in and to any and all divisions, reissues, continuations, wals thereof.
any and all foreign co assignee of my entire in (his) successors and as	and request the Patent Office Officials in the United States and its territorial possessions and untries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its ssigns, to the full end of the term for which said Letters Patent may be granted, as fully and buld have been held by me had this Assignment and sale not been made.
respecting said invent continuation, substitute all of said Letters Pat possible to aid said A	It I will communicate to said ASSIGNEE or its (his) representatives any facts known to me tion, and testify in any legal proceeding, sign all lawful papers, execute all divisional, e, renewal and reissue applications, execute all necessary assignment papers to cause any and ent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything SSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said States and its territorial possessions and in any and all foreign countries.
	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. onment of not more than five (5) years, or both.
LEGAL NAME OF IN	VENTOR
Inventor: Keiju YAM	ADA Date: Sep 7 2018
Signature: Keij	ja Jamada

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 047138 FRAME: 0028

Title of Invention	WIRELESS MODULE, PRINTED CIRCUIT BOARD, AND METHOD
As the below named in	ventor, I hereby declare that:
is directed to: U	ne attached application, or nited States application or PCT international application numbered on
The above-identified a	pplication 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.
having a place of busi entire right, title and ir	SHIKI KAISHA TOSHIBA (hereinafter referred to as "ASSIGNEE") iness at: 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, Japan is desirous of acquiring the nterest in and to said invention and in and to any Letters Patent that may be granted therefore d its territorial possessions and in any and all foreign countries;
acknowledged, and for said ASSIGNEE, the f and in all foreign coun other relevant Internati interest in and to any	RE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby other good and valuable consideration, I, by these presents do sell, assign and transfer unto full and exclusive right to the said invention in the United States and its territorial possessions tries (including the right to claim priority under the terms of the International Convention and ional Treaties and Arrangements from the aforesaid application) and the entire right, title and and all Letters Patent which may be granted therefor in the United States and its territorial may and all foreign countries and in and to any and all divisions, reissues, continuations, wals thereof.
any and all foreign co assignee of my entire r (his) successors and as	and request the Patent Office Officials in the United States and its territorial possessions and untries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its ssigns, to the full end of the term for which said Letters Patent may be granted, as fully and buld have been held by me had this Assignment and sale not been made.
respecting said invent continuation, substitute all of said Letters Pat possible to aid said As	at I will communicate to said ASSIGNEE or its (his) representatives any facts known to me tion, and testify in any legal proceeding, sign all lawful papers, execute all divisional, e, renewal and reissue applications, execute all necessary assignment papers to cause any and ent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything SSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said I States and its territorial possessions and in any and all foreign countries.
	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. comment of not more than five (5) years, or both.
LEGAL NAME OF IN	VENTOR
Inventor: Makoto SAN	NO Date: Lept. 17th, 2018
Signature: Maker	to Sano

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

PATENT REEL: 047138 FRAME: 0029

Title of Invention	WIRELESS MODULE, PRINTED CIRCUIT BOARD, AND METHOD
As the below named in	ventor, 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 ap	pplication 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.
having a place of busi entire right, title and in	SHIKI KAISHA TOSHIBA (hereinafter referred to as "ASSIGNEE") ness at: 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, Japan is desirous of acquiring the atterest in and to said invention and in and to any Letters Patent that may be granted therefore distribution to the standard possessions and in any and all foreign countries;
acknowledged, and for said ASSIGNEE, the fi and in all foreign count other relevant Internati interest in and to any	EE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby other good and valuable consideration, I, by these presents do sell, assign and transfer unto ull and exclusive right to the said invention in the United States and its territorial possessions tries (including the right to claim priority under the terms of the International Convention and onal Treaties and Arrangements from the aforesaid application) and the entire right, title and and all Letters Patent which may be granted therefor in the United States and its territorial y and all foreign countries and in and to any and all divisions, reissues, continuations, vals thereof.
any and all foreign con assignee of my entire r (his) successors and as	and request the Patent Office Officials in the United States and its territorial possessions and untries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its signs, to the full end of the term for which said Letters Patent may be granted, as fully and ould 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.	
	lge that any willful false statement made in this declaration is punishable under 18 U.S.C. onment of not more than five (5) years, or both.
LEGAL NAME OF IN	VENTOR .
Inventor: Makoto HIG Signature:	Date: Sept. 7,2018 Prakoto Ligaki

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 047138 FRAME: 0030

Title of	WIRELESS MODULE, PRINTED CIRCUIT BOARD, AND METHOD
Invention	
As the below named in	nventor, I hereby declare that:
	he attached application, or
	nited States application or PCT international application number
	led on
	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.
having a place of businentire right, title and in	ISHIKI KAISHA TOSHIBA (hereinafter referred to as "ASSIGNEE") iness at: 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, Japan is desirous of acquiring the nterest in and to said invention and in and to any Letters Patent that may be granted therefore dist territorial possessions and in any and all foreign countries;
acknowledged, and for said ASSIGNEE, the f and in all foreign coun other relevant Internati interest in and to any	RE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby of other good and valuable consideration, I, by these presents do sell, assign and transfer unto full and exclusive right to the said invention in the United States and its territorial possessions attries (including the right to claim priority under the terms of the International Convention and ional Treaties and Arrangements from the aforesaid application) and the entire right, title and and all Letters Patent which may be granted therefor in the United States and its territorial may and all foreign countries and in and to any and all divisions, reissues, continuations, wals thereof.
any and all foreign co assignee of my entire in (his) successors and as	and request the Patent Office Officials in the United States and its territorial possessions and buntries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its ssigns, to the full end of the term for which said Letters Patent may be granted, as fully and build have been held by me had this Assignment and sale not been made.
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	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. onment of not more than five (5) years, or both.
LEGAL NAME OF IN	IVENTOR
Inventor: Koh HASHI	MOTO Date: Sey. 7, 2018
Signature: Koh	Topshimoro

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 047138 FRAME: 0031

**RECORDED: 10/11/2018**