504824086 03/16/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4870822

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JIN XU	01/25/2018
CHENG GAO	01/25/2018
SIQI LIU	01/25/2018
BINGCHENG JIN	01/25/2018
JINHUI CHEN	03/16/2018

#### RECEIVING PARTY DATA

Name:	SONY CORPORATION
Street Address:	1-7-1, KONAN, MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	108-0075

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

Property Type	Number
Application Number:	15760941

### **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: etadic@oblon.com
Correspondent Name: OBLON, ET AL.
Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	510737US
NAME OF SUBMITTER:	EMIRA TADIC
SIGNATURE:	/Emira Tadic/
DATE SIGNED:	03/16/2018

**Total Attachments: 5** 

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PATENT REEL: 045257 FRAME: 0223

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PATENT REEL: 045257 FRAME: 0224

Title of	COMMUNICATION SYSTEM, AND WIRELESS COMMUNICATION
Invention	METHOD
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 PCT/CN2016/099452 filed on 09/20/2016
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, Son	
108-0075, respecti invention and in a	d to as "ASSIGNEES") having places of business at: 1-7-1, Konan, Minato-ku, Tokyo, Japan vely are desirous of jointly acquiring interests in the entire right, title and interest in and to said and to any Letters Patent that may be granted therefore in the United States and its territorial any and all foreign countries;
acknowledged, and said ASSIGNEES, t and in all foreign co other relevant Inter- interest in and to a	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 the full and exclusive right to the said invention in the United States and its territorial possessions puntries (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 my 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 assignees of my en their successors and	the 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 ASSIGNEES as the tire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, 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 inv continuation, substit all of said Letters P possible to aid said	that I will communicate to said ASSIGNEES or their 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 latent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said led 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
inventor: Jin XU	Date: 34/8. /. >5
Signature:	

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 045257 FRAME: 0225

Title of	COMMUNICATION SYSTEM, AND WIRELESS COMMUNICATION
Invention	METHOD
As the below nam	ed inventor, I hereby declare that:
This declaration [	The attached application, or
is directed to:	United States application or PCT international application number PCT/CN2016/099452 filed on 09/20/2016
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.
WHEREAS, So	
108-0075, respectinvention and in	ed to as "ASSIGNEES") having places of business at: 1-7-1, Konan, Minato-ku, Tokyo, Japan tively are desirous of jointly acquiring interests in the entire right, title and interest in and to said and to any Letters Patent that may be granted therefore in the United States and its territorial any and all foreign countries;
acknowledged, an said ASSIGNEES and in all foreign other relevant Inte interest in and to	FORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby d 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 emational Treaties and Arrangements from the aforesaid application) and the entire right, title and any and all Letters Patent which may be granted therefor in the United States and its territorial in any and all foreign countries and in and to any and all divisions, reissues, continuations, renewals thereof.
any and all foreig assignees of my of their successors as	rize and request the Patent Office Officials in the United States and its territorial possessions and in countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and no would have been held by me had this Assignment and sale not been made.
respecting said in continuation, subs all of said Letters possible to aid sa	that I will communicate to said ASSIGNEES or their representatives any facts known to me nvention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, attute, renewal and reissue applications, execute all necessary assignment papers to cause any and a Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything aid ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said nited States and its territorial possessions and in any and all foreign countries.
	wledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 nment of not more than five (5) years, or both.
LEGAL NAME C	F INVENTOR
Inventor: Cheng	GAO Date: Will. 1. N
Signature: <u>Cha</u>	

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

ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

**PATENT** 

REEL: 045257 FRAME: 0226

Title of	COMMUNICATION SYSTEM, AND WIRELESS COMMUNICATION
Invention	METHOD
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 PCT/CN2016/099452 filed on 09/20/2016
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, Sor	
invention and in a	to as "ASSIGNEES") having places of business at: 1-7-1, Konan, Minato-ku, Tokyo, Japan ively are desirous of jointly acquiring interests in the entire right, title and interest in and to said and to any Letters Patent that may be granted therefore in the United States and its territorial any and all foreign countries;
acknowledged, and said ASSIGNEES, and in all foreign of other relevant Inte- interest in and to	FORE, 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 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 mational Treaties and Arrangements from the aforesaid application) and the entire right, title and any and all Letters Patent which may be granted therefor in the United States and its territorial n any and all foreign countries and in and to any and all divisions, reissues, continuations, enewals thereof.
any and all foreign assignees of my e their successors ar	rize and request the Patent Office Officials in the United States and its territorial possessions and an countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and a would have been held by me had this Assignment and sale not been made.
Further, I agree respecting said in continuation, substall of said Letters possible to aid said invention in the University of the Univers	e that I will communicate to said ASSIGNEES or their representatives any facts known to me avention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, titute, renewal and reissue applications, execute all necessary assignment papers to cause any and Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything id ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said nited States and its territorial possessions and in any and all foreign countries.
el me or markation	wledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 nment of not more than five (5) years, or both.
LEGAL NAME O	F INVENTOR
Inventor: Siqi L.	U Date: 2018 · 1 · 25
Signature: Siqi L	

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

PATENT REEL: 045257 FRAME: 0227

Title of	COMMUNICATION SYSTEM, AND WIRELESS COMMUNICATION
Invention	METHOD
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 PCT/CN2016/099452 filed on 09/20/2016
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, Son	
108-0075, respecti invention and in a	d to as "ASSIGNEES") having places of business at: 1-7-1, Konan, Minato-ku, Tokyo, Japan vely are desirous of jointly acquiring interests in the entire right, title and interest in and to said and to any Letters Patent that may be granted therefore in the United States and its territorial any and all foreign countries;
acknowledged, and said ASSIGNEES, t and in all foreign co other relevant Inter- interest in and to as	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 the full and exclusive right to the said invention in the United States and its territorial possessions puntries (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.
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 ASSIGNEES as the assignees of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their 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.	
respecting said invector invector invariant substitution all of said Letters Prossible to aid said	that I will communicate to said ASSIGNEES or their 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 ratent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said red 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	
nventor: Bingcher	ng JIN Date: 1. >5
Signature: Baycho	4 JIN

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

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

**PATENT** 

**REEL: 045257 FRAME: 0228** 

Title of Electronic device in wireless communication system  and wireless communication method
As the below named inventor, I hereby declare that:
This declaration The attached application, or
is directed to:  \[ \Boxed{\text{United States application or PCT international application number \( \frac{PCT/CN \text{Nb/\delta1945}}{\text{filed on } \frac{\int \frac{1}{20/20/b}}{\text{United States application or PCT international application number \( \frac{PCT/CN \text{Nb/\delta1945}}{\text{filed on } \frac{\int \frac{1}{20/20/b}}{\text{United States application or PCT international application number \( \frac{PCT/CN \text{Nb/\delta1945}}{\text{filed on } \frac{\int \frac{1}{20/20/b}}{\text{United States application or PCT international application number \( \frac{\text{PCT/CN \text{Nb/\delta1945}}{\text{United States application or PCT international application number \( \frac{\text{PCT/CN \text{Nb/\delta1945}}{\text{United States application or PCT international application number \( \frac{\text{PCT/CN \text{Nb/\delta1945}}{\text{United States application or PCT international application number \( \frac{\text{PCT/CN \text{Nb/\delta1945}}{\text{United States application or PCT international application number \( \frac{\text{PCT/CN \text{Nb/\delta2945}}{\text{United States application or PCT international application number \( \frac{\text{PCT/CN \text{Nb/\delta2945}}{United States application or PCT international application number \)
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, Sony Corporation
(hereinafter referred to as "ASSIGNEES") having places of business at: 1-7-1, Konan, Minato-ku, Tokyo, Ispan 108-0075, respectively are desirons of jointly acquiring interests in 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 ASSIGNEES, 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 ASSIGNEES as the assignees of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their 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 ASSIGNEES or their 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 ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their 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: Jinhui CHEN Date: 20/8.3.1/2
Signature: QQ Q 3

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

ALEXANDRIA, VIRGINIA 22314

PATENT REEL: 045257 FRAME: 0229

**RECORDED: 03/16/2018**