### 505850165 01/07/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5897102

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
YUICHIRO SUZUKI	12/09/2019
SHEN WANG	12/23/2019
TAKAYOSHI ITO	12/10/2019
TORU OZONE	12/09/2019
JIN SATO	12/10/2019

#### **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:	16619968

#### **CORRESPONDENCE DATA**

Fax Number:

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:** 5713766333

**Email:** anaquadocketing@Xsensus.com

Correspondent Name: XSENSUS LLP

Address Line 1: 200 DAINGERFIELD ROAD

Address Line 2: SUITE 201

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	13594US01
NAME OF SUBMITTER:	CHRISTINE GRIMES
SIGNATURE:	/Christine Grimes/
DATE SIGNED:	01/07/2020

**Total Attachments: 5** 

PATENT REEL: 051434 FRAME: 0429

505850165

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PATENT REEL: 051434 FRAME: 0430

Title of Invention	ANTENNA DEVICE	
As the below na	amed inventor, I hereby declare that:	
This declaration	n   The attached application, or	
is directed to:	☑ United States application or PCT international application	pplication number PCT/JP2018/005297
filed on Febru	uary 15,2019	
The above-ident	ntified application was made or authorized to be made b	y me.
	am the original inventor or an original joint inventor of SONY CORPORATION	a claimed invention in the application.
(hereinafter refe	erred to as "ASSIGNEE") having places of business at	1-7-1 Konan, Minato-ku, Tokyo, JP 108-0075
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, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, 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		
the United State	d the entire right, title and interest in and to any and al tes and its territorial possessions and in any and all fore muations, 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 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 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 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.		
	knowledge that any willful false statement made in this onment of not more than five (5) years, or both.	declaration is punishable under 18 U.S.C. 1001 by
LEGAL NAME	E OF INVENTOR	
Inventor: Yuic	ichiro SUZUKI	Date: Dec. 9. 2019
Signature:	Milcheros Sumuki	,

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

Title of	
Invention	ANTENNA DEVICE
As the below nar	med inventor, I hereby declare that:
This declaration	The attached application, or
is directed to:	☑ United States application or PCT international application number PCT/JP2018/005297
filed on Februa	
The above-identi	fied application was made or authorized to be made by me.
I believe that I ar WHEREAS, S	in the original inventor or an original joint inventor of a claimed invention in the application.  ONY CORPORATION
(hereinafter refer	red to as "ASSIGNEE") having places of business at: 1-7-1 Konan, Minato-ku, Tokyo, JF 108-0075
may be gramen n	pairing the entire right, title and interest in and to said invention and in and to any Letters Patent that herefore in the United States and its territorial possessions and in any and all foreign countries:
the United States the terms of the In application) and the United States	EFORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in and its territorial possessions and in all foreign countries (including the right to claim priority under international Convention and other relevant International Treaties and Arrangements from the aforesaid the emire right, title and interest in and to any and all Letters Patent which may be granted therefor in and its territorial possessions and in any and all foreign countries and in and to any and all divisions, ations, substitutions and renewals thereof.
my entire right, ti assigns, to the full	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 of the and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and I end of the term for which said Letters Patent may be granted, as fully and entirely as the same would me had this Assignment and sale not been made.
tenewal and reissu issued to said AS successors and ass	e that I will communicate to said ASSIGNEE or its representatives any facts known to me respecting differentially in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, se applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be SIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its signs, to obtain and enforce proper protection for said invention in the United States and its territorial any and all foreign countries.
I hereby acknor fine or imprisonme	wledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by ent of not more than five (5) years, or both.
LEGAL NAME O	FINVENTOR
Inventor: Shen V	VANG Date: 2019/12/23
Signature:	MANG SHAN

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314



PATENT REEL: 051434 FRAME: 0432

Title of Invention	ANTENNA DEVICE	
As the below na	amed inventor, I hereby declare that:	
This declaration	The attached application, or	
is directed to:	United States application or PCT international application number PCT/JP2018/005297	
filed on Febru	uary 15,2019	
The above-ident	tified application was made or authorized to be made by me.	
I believe that I a	am the original inventor or an original joint inventor of a claimed invention in the application.	
WHEREAS, S	SONY CORPORATION	
(hereinafter refe	erred to as "ASSIGNEE") having places of business at: 1-7-1 Konan, Minato-ku, Tokyo, JP 108-0075	
	equiring the entire right, title and interest in and to said invention and in and to any Letters Patent that therefore in the United States and its territorial possessions and in any and all foreign countries;	
NOW, THEREFORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, 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 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 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 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.		
	nowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by iment of not more than five (5) years, or both.	
LEGAL NAME	E OF INVENTOR	
Inventor: Taka	<u> </u>	
Signature:	Jakayoshi Ito	

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

Title of Invention	ANTENNA DEVICE	
As the below na	med inventor, I hereby declare that:	
This declaration	☐ The attached application, or	
is directed to:	☐ United States application or PCT international application number PCT/JP2018/005297	
filed on Februa	ary 15,2019	
The above-ident	ified application was made or authorized to be made by me.	
	m the original inventor or an original joint inventor of a claimed invention in the application.  SONY CORPORATION	
(hereinafter refe	rred to as "ASSIGNEE") having places of business at: 1-7-1 Konan, Minato-ku, Tokyo, JP 108-0075,	
	equiring the entire right, title and interest in and to said invention and in and to any Letters Patent that therefore in the United States and its territorial possessions and in any and all foreign countries;	
by these present the United State the terms of the application) and the United State	EFORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, is do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in a and its territorial possessions and in all foreign countries (including the right to claim priority under International Convention and other relevant International Treaties and Arrangements from the aforesaid the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in a and its territorial possessions and in any and all foreign countries and in and to any and all divisions, stations, substitutions and renewals thereof.	
and all foreign c my entire right, assigns, to the fi	orize and request the Patent Office Officials in the United States and its territorial possessions and any ountries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and all end of the term for which said Letters Patent may be granted, as fully and entirely as the same would by me had this Assignment and sale not been made.	
Further, I agree that I will communicate to said ASSIGNEE or its 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 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.		
	nowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by ment of not more than five (5) years, or both.	
LEGAL NAME	OF INVENTOR	
Inventor: Toru	OZONE Date: 2°/9/12/9	
Signature: 1	oru Ozone	

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

> PATENT REEL: 051434 FRAME: 0434

Title of Invention	ANTENNA DEVICE	
As the below na	med inventor, I hereby declare that:	
This declaration	☐ The attached application, or	
is directed to:	☐ United States application or PCT international application number PCT/JP2018/005297	
filed on Febru	lary 15,2019	
The above-ident	ified application was made or authorized to be made by me.	
	m the original inventor or an original joint inventor of a claimed invention in the application.	
	SONY CORPORATION	
(hereinafter refe	rred to as "ASSIGNEE") having places of business at: 1-7-1 Konan, Minato-ku, Tokyo, JP 108-0075,	
	equiring the entire right, title and interest in and to said invention and in and to any Letters Patent that therefore in the United States and its territorial possessions and in any and all foreign countries;	
by these present the United State the terms of the application) and the United State	REFORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, is do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in as and its territorial possessions and in all foreign countries (including the right to claim priority under International Convention and other relevant International Treaties and Arrangements from the aforesaid the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in as and its territorial possessions and in any and all foreign countries and in and to any and all divisions, nations, 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 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.		
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I hereby acki fine or imprison	nowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by ment of not more than five (5) years, or both.	
LEGAL NAME	OF INVENTOR	
Inventor: Jin S	Date: Dec. 10. 2019	
Signature:	Tim Jako	

**XSENSUS LLP** ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

> **PATENT REEL: 051434 FRAME: 0435**

**RECORDED: 01/07/2020**