506692175 06/01/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6738992

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YUICHIRO SUZUKI	01/20/2021
SHEN WANG	03/31/2021
TAKAYOSHI ITO	12/28/2020
TORU OZONE	12/28/2020
JIN SATO	12/28/2020

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:	16755160

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:	13927US01
NAME OF SUBMITTER:	KELLY ELAM
SIGNATURE:	/Kelly Elam/
DATE SIGNED:	06/01/2021
	•

Total Attachments: 7

PATENT REEL: 056404 FRAME: 0300

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Title of Invention	ANTENNA DEVICE
Title of Invention	
Docket Number	SYP326622US01
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 PCT/JP2018/025551 filed on Jul 05 2018 .
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.
	that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine t more than five (5) years, or both.
WHEREAS,	Sony Corporation
hereinafter referred to	as "ASSIGNEE") having a place of business at:
1-7-1 Konan, Minato-ku	, Tokyo,108-0075,Japan
desires to acquire the application;	e entire right, title and interest in said invention and the above-identified United States patent
acknowledged, I herel identified United State and reissues, extension in countries foreign to	EFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby by assign to the ASSIGNEE, the entire right, title and interest in said invention and in the aboves patent application and in all divisions, continuations and continuations-in-part of said application, as and renewals of Letters Patent granted thereon, and in all corresponding patent applications filed the United States ("foreign countries") and corresponding international patent applications, and in ing on any such patent applications in the United States and foreign countries;
own name and the rig	on to the ASSIGNEE the right to file patent applications in foreign countries on said invention in its ght to claim priority to the above-identified United States patent application under the terms of the ion and any other relevant treaties;
foreign countries to is interest in and to the	norize and request the United States Patent & Trademark Office and officials in patent offices in usual and all of said Letters Patent to the ASSIGNEE as the assignee of my entire right, title and the same, for the sole use and behoof of the ASSIGNEE, its successors, assigns, and legal full end of the term for which said Letters Patent may be granted; and
respecting said inventicontinuation-in-part, s Letters Patent to be is	the that, without further consideration, I will communicate to the ASSIGNEE any facts known to me ion, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, ubstitute, renewal and reissue applications, execute all necessary assignment papers to cause said sued to the ASSIGNEE, make all rightful oaths, and, perform all lawful acts to aid the ASSIGNEE, gns, to obtain and enforce Letters Patent for said invention in the United States and foreign countries.
LEGAL NAME OF	INVENTOR
Inventor: Yuichiro Su	Zuki Date: 2021/1/20
Signature: / Yuichiro S	Suzuki /

13927US01 SYP326622US01

Doc code: Oath Document Description: Oath or declaration filed

PTO/AIA/02 (07-13)

Approved for use through 11/30/2020. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)

Title of Invention	ANTENNA DEVICE		
This stateme	ent is directed to:		
The att	ached application.		
OR			
United :	States application or PCT internation	nal application number	/755,160 April 10, 2020
LEGAL NA	ME of inventor to whom this s	substitute statement app	lies:
(E.g., Given	Name (first and middle (if any)) and	d Family Name or Surname)	
Shen V	/ang		
Residence (except for a deceased or legally inc	apacitated inventor):	
_{city} Tok	yo	State	Country
Mailing Addre	ss (except for a deceased or legally inc	apacitated inventor):	
c/o SON)			
	Y CORPORATION, 1-7-1 K₀	nan, Minato-ku	
	CORPORATION, 1-7-1 K₀ Tokyo	nan, Minato-ku State	Zip 108-0075 Country JP
City	Tokyo	State	Zip 108-0075 Country JP or or an original joint inventor of a claimed invention
City I believe the in the ap	Tokyo above-named inventor or joint inve	State short of the original inventors	Zip (Country or or an original joint inventor of a claimed invention
City I believe the in the ap The above-i	Tokyo above-named inventor or joint inventional plication. dentified application was made or a	State entor to be the original invento authorized to be made by me	Zip (Country or or an original joint inventor of a claimed invention
City I believe the in the ap The above-in the action imprison	Tokyo above-named inventor or joint invention. identified application was made or a	State entor to be the original invento authorized to be made by me ement made in this statement s, or both.	Zip (Country or or an original joint inventor of a claimed invention
City I believe the in the ap The above-interest actions acti	Tokyo above-named inventor or joint invention. dentified application was made or a mowledge that any willful false statement of not more than five (5) years	State entor to be the original invento authorized to be made by me ement made in this statement a or both. etitute statement applies:	Zip (Country or or an original joint inventor of a claimed invention is punishable under 18 U.S.C. 1001 by fine or
City I believe the in the ap The above-interest act imprison Relationsh	Tokyo above-named inventor or joint invention. identified application was made or a mowledge that any willful false statement of not more than five (5) years in to the inventor to whom this subs	State entor to be the original invento authorized to be made by me ement made in this statement a or both. etitute statement applies:	Zip (Country or or an original joint inventor of a claimed invention is punishable under 18 U.S.C. 1001 by fine or
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City I believe the in the ap The above-inprison Relationsh	Tokyo above-named inventor or joint invention. dentified application was made or a mowledge that any willful false statement of not more than five (5) years in to the inventor to whom this subsequily representative (for deceased cossignee.	State entor to be the original invento authorized to be made by me ement made in this statement s, or both. entitute statement applies: or legally incapacitated invent	Zip (Country or or an original joint inventor of a claimed invention is punishable under 18 U.S.C. 1001 by fine or or only).

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800 PTO-9199 and select option 2.

PTO/SB/AIA02 (07-13)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid QMB control number.

SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitu	ute statement;		
Inventor is deceased.			
Inventor is under legal incapacity,			
Inventor cannot be found or reached after diligent effort, or			
Inventor has refused to execute the oath or declaration under 37 CFR 1.63.			
If there are joint inventors, please check the appro	opriate box below		
An application data sheet under 37 CFR or is currently submitted.	1.76 (PTO/AIA/14 or equiva	elent) naming the entir	e inventive entity has been
OR			
An application data sheet under 37 CFR Statement Supplemental Sheet (PTO/Al/ information is attached. See 37 CFR 1.6-	4/11 or equivalent) naming		
	WARNING:		
Petitioner/applicant is cautioned to avoid submitting contribute to identity theft. Personal information suc (other than a check or credit card authorization form to support a petition or an application. If this type of petitioners/applicants should consider redacting suc USPTO. Petitioner/applicant is advised that the recapplication (unless a non-publication request in compatent. Furthermore, the record from an abandoned referenced in a published application or an issued pPTO-2038 submitted for payment purposes are not	th as social security number PTO-2038 submitted for participation is incur- personal information from ord of a patent application in pliance with 37 CFR 1.213 dispolication may also be a patent (see 37 CFR 1.14).	rs, bank account num ayment purposes) is r luded in documents so the documents befor s available to the public (a) is made in the app vailable to the public in Checks and credit card	bers, or credit card numbers bever required by the USPTO abmitted to the USPTO, to submitting them to the lic after publication of the lication) or issuance of a fine application is
PERSON EXECUTING THIS SUBSTITUTE STATE	MENT:	***************************************	
Name: M asayoshi Doshida			March 31, 2021 Date (Optional)
Signature:			
APPLICANT NAME AND TITLE OF PERSON EXE			
If the applicant is a juristic entity, list the applicant n	ame and the title of the sigr	ier:	
Sony Corporation Applicant Name			
Title of Person Executing This Substitute Statement: General Manager.	Planning & Control De	epartment, Intelle	ctual Property Division
The signer, whose title is supplied above, is author Residence of the signer (unless provided in an			ent);
_{city} Tokyo	State	Country	Japan
Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent) 1-7-1 Konan, Minato-ku			
City Tokyo		108-0075	Country
Note: Use an additional PTO/AIA/02 form for each		70 (2) (3)	cannot be found or reached
after diligent effort, or has refused to execute the o	ath or declaration under 37	CFR 1.63.	

[Page 2 of 2]

Employment Assignment / Letter of Consent

2017/09/13

4-12-3, Higashi-Shinagawa, Shinagawa-ku, Tokyo,140-0002 JAPAN

Sony Mobile Communications Inc.

Serial Number: PJ17 0169JP1

Title of Invention (Provisional): ANTENNA DEVICE

I, undermentioned INVENTOR, hereby certify that I have agreed the all of rights to obtain the registration of patents, utility model rights and design rights in Japan and overseas countries, with respect to the above invention, vest in the above mentioned corporation.

ASSIGNOR

Address :4-12-3, Higashi-Shinagawa、 Shinagawa-ku, Tokyo,140-0002 JAPAN

Sony Mobile Communications Inc.

Name: Shen Wang

Title of Invention	ANTENNA DEVICE
Title of Invention	
Docket Number	SYP326622US01
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
	PCT/JP2018/025551 filed on Jul 05 2018 .
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.
	that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine t more than five (5) years, or both.
WHEREAS,	Sony Corporation
hereinafter referred to	as "ASSIGNEE") having a place of business at:
1-7-1 Konan, Minato-ku	, Tokyo,108-0075,Japan
desires to acquire the application;	e entire right, title and interest in said invention and the above-identified United States patent
acknowledged, I herel identified United State and reissues, extension in countries foreign to	EFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby by assign to the ASSIGNEE, the entire right, title and interest in said invention and in the aboves patent application and in all divisions, continuations and continuations-in-part of said application, as and renewals of Letters Patent granted thereon, and in all corresponding patent applications filed the United States ("foreign countries") and corresponding international patent applications, and in ing on any such patent applications in the United States and foreign countries;
own name and the rig	on to the ASSIGNEE the right to file patent applications in foreign countries on said invention in its ght to claim priority to the above-identified United States patent application under the terms of the ion and any other relevant treaties;
foreign countries to is interest in and to the	norize and request the United States Patent & Trademark Office and officials in patent offices in usual and all of said Letters Patent to the ASSIGNEE as the assignee of my entire right, title and the same, for the sole use and behoof of the ASSIGNEE, its successors, assigns, and legal full end of the term for which said Letters Patent may be granted; and
respecting said inventicentinuation-in-part, s Letters Patent to be is	the that, without further consideration, I will communicate to the ASSIGNEE any facts known to me ion, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, ubstitute, renewal and reissue applications, execute all necessary assignment papers to cause said sued to the ASSIGNEE, make all rightful oaths, and, perform all lawful acts to aid the ASSIGNEE, gas, to obtain and enforce Letters Patent for said invention in the United States and foreign countries.
LEGAL NAME OF	INVENTOR
Inventor: Takayoshi	Date: December 28, 2020
Signature: / Takayosh	i ito /

Title of Invention	ANTENNA DEVICE
Docket Number	SYP326622US01
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 PCT/JP2018/025551 filed on Jul 05 2018 .
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own name and the rig	In to the ASSIGNEE the right to file patent applications in foreign countries on said invention in its ght to claim priority to the above-identified United States patent application under the terms of the ion and any other relevant treaties;
foreign countries to is interest in and to the	orize and request the United States Patent & Trademark Office and officials in patent offices in sue any and all of said Letters Patent to the ASSIGNEE as the assignee of my entire right, title and ne same, for the sole use and behoof of the ASSIGNEE, its successors, assigns, and legal full end of the term for which said Letters Patent may be granted; and
respecting said invent continuation-in-part, s Letters Patent to be is	the that, without further consideration, I will communicate to the ASSIGNEE any facts known to me don, 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 said sued to the ASSIGNEE, make all rightful oaths, and, perform all lawful acts to aid the ASSIGNEE, gns, to obtain and enforce Letters Patent for said invention in the United States and foreign countries.
LEGAL NAME OF	INVENTOR
Inventor: Toru Ozone	Date: December 28, 2020
Signature: / Toru Ozor	ne /

Title of Invention	ANTENNA DEVICE
Docket Number	SYP326622US01
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 PCT/JP2018/025551 filed onJul 05 2018
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I believe that I am the	original inventor or an original joint inventor of a claimed invention in the application.
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WHEREAS,	Sony Corporation
	as "ASSIGNEE") having a place of business at: , Tokyo,108-0075,Japan
desires to acquire the application;	entire right, title and interest in said invention and the above-identified United States patent
acknowledged, I herelidentified United State and reissues, extension in countries foreign to	EFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby by assign to the ASSIGNEE, the entire right, title and interest in said invention and in the aboves patent application and in all divisions, continuations and continuations-in-part of said application, as and renewals of Letters Patent granted thereon, and in all corresponding patent applications filed the United States ("foreign countries") and corresponding international patent applications, and in any on any such patent applications in the United States and foreign countries;
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foreign countries to is interest in and to the	orize and request the United States Patent & Trademark Office and officials in patent offices in sue any and all of said Letters Patent to the ASSIGNEE as the assignee of my entire right, title and ne same, for the sole use and behoof of the ASSIGNEE, its successors, assigns, and legal full end of the term for which said Letters Patent may be granted; and
respecting said invent continuation-in-part, s Letters Patent to be is	the that, without further consideration, I will communicate to the ASSIGNEE any facts known to me on, 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 said sued to the ASSIGNEE, make all rightful oaths, and, perform all lawful acts to aid the ASSIGNEE, gas, to obtain and enforce Letters Patent for said invention in the United States and foreign countries.
LEGAL NAME OF	INVENTOR
Inventor: Jin Sato	Date: December 28, 2020
Signature: _/Jin Sato /	

RECORDED: 06/01/2021