505470582 05/10/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5517385

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HUI LI	03/27/2019
QIUBIN GAO	03/27/2019
RAKESH TAMRAKAR	03/27/2019
XIN SU	03/27/2019
RUNHUA CHEN	04/16/2019
QIUPING HUANG	03/27/2019
CHUANJUN LI	03/27/2019
MENGJUN WANG	04/03/2019

RECEIVING PARTY DATA

Name:	CHINA ACADEMY OF TELECOMMUNICATIONS TECHNOLOGY	
Street Address:	NO. 40 XUEYUAN RD.	
Internal Address:	HAIDIAN DISTRICT	
City:	BEIJING	
State/Country:	CHINA	
Postal Code:	100191	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16349014

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.

Email: zflener@fleneriplaw.com

Correspondent Name: FLENER IP & BUSINESS LAW
Address Line 1: 77 WEST WASHINGTON STREET

Address Line 2: SUITE 800

Address Line 4: CHICAGO, ILLINOIS 60602

ATTORNEY DOCKET NUMBER: CU-100419

NAME OF SUBMITTER: AYHAN ERGUN MERTOGUL

PATENT 505470582 REEL: 049141 FRAME: 0088

SIGNATURE: /AyhanEMertogul/		
DATE SIGNED: 05/10/2019		
This document serves as an Oath/Declaration (37 CFR 1.63).		
Total Attachments: 16		
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source=CU419AssignmentDeclaration#page2.tif		

source=CU419AssignmentDeclaration#page1.tif source=CU419AssignmentDeclaration#page2.tif source=CU419AssignmentDeclaration#page3.tif source=CU419AssignmentDeclaration#page4.tif source=CU419AssignmentDeclaration#page5.tif source=CU419AssignmentDeclaration#page6.tif source=CU419AssignmentDeclaration#page7.tif source=CU419AssignmentDeclaration#page8.tif source=CU419AssignmentDeclaration#page9.tif source=CU419AssignmentDeclaration#page10.tif source=CU419AssignmentDeclaration#page11.tif source=CU419AssignmentDeclaration#page12.tif source=CU419AssignmentDeclaration#page13.tif source=CU419AssignmentDeclaration#page14.tif source=CU419AssignmentDeclaration#page15.tif source=CU419AssignmentDeclaration#page15.tif source=CU419AssignmentDeclaration#page16.tif

Title of Invention	REFERENCE SIGNAL TRANSMISSION METHOD, TRANSMITTER AND RECEIVER
As a belov	anamed inventor, I hereby declare that:
This decla	ration
is directed	to: The attached application, or
	United States application or PCT international application numberfiled on
The above-	dentified application was made or authorized to be made by me.
I believe than the application	at I am the original inventor or an original joint inventor of a claimed invention action.
l hereby acl punishable years, or bo	knowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) th.
[here!	W authorize and request by offernor or rerespondence to broad home in

I hereby authorize and request my attorney or representative to insert here in parentheses (patent Application number _______, filed _______) the filing date and application number of said US application when known.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL ASSIGN AND TRANSFER to CHINA ACADEMY TELECOMMUNICATIONS TECHNOLOGY, having a place of business at No.40 Xueyuan Rd., Haidian District, Beijing 100191, China, Chereinafter referred to as "ASSIGNEE") the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the above-identified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which is a national phase filing of PCT/CN2017/119381 filed on December 28, 2017: which in turn claims priority to CN 201611236137.2 filed on December 28, 2016; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States:

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee:

1

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful ontits, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions:

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STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME OF INVENTOR	~
Inventor: Hui Li Date: 2519, 3	2
Signature: LT Jan	*

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As a below	named inventor, I hereby declare that:		
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is directed	to: Fig. 7 The attached application, or		
	United States application or PCT international application numberfiled on		
The above-	dentified application was made or authorized to be made by me.		
I believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention ation.		
	knowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) th.		
	by authorize and request my afformey or representative to insert here in (patent Application number , filed) the filing		

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LEGAL NAME OF INVENTOR
Inventor: Qiubin GAO Date: 2019, 3, 7
Signature: Quadia GAO

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LEGAL NAN	ME OF INVENTOR			
Inventor: I/	AMRAKAR Rakesh	Date: 20/9:	č2,2	
Signature:	Rakah Thron	kenr	<i>/</i>	
	1 a. Tau'i 1 1			

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LEG	LEGAL NAME OF INVENTOR		
lover	tor <u>Xin.SU</u> Date <u>2019.03-27</u>		
Signa	ture: Xin SU		

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As a below	named inventor, I hereby declare that:
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**	
	LEGAL NAME OF INVENTOR
	Inventor: Runhua CHEN Date: 04/16/2019
	Signature A A A
•••	

Title of Invention	REFERENCE SIGNAL TRANSMISSION METHOD, TRANSMITTER AND RECEIVER			
As a below	As a below named inventor, I hereby declare that:			
This decla	ation			
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LEGAL NAME OF INVENTOR		***************************************	······	
	LEGAL NAME OF INVENTOR			
Inventor: Qiugina HUANG Date: 2019.3.27	Inventor: Qiuging HUANG Date:	2019.3.2]	***************************************	
Signature: <u>Raubang HUANG</u>	Signature: <u>Nuvying</u> /	HUANG		

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LEGAL NAME OF INVENTOR	
Inventor Chuanjun LI Date	2019.2.27
Signature: Chuan un	I

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is directed	to: The attached application, or
	United States application or PCT international application numberfiled on
The above-	identified application was made or authorized to be made by me.
I believe than the application	at I am the original inventor or an original joint inventor of a claimed invention ation.
i hereby aci punishable years, or bo	thowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) th.
parentheses	by authorize and request my attorney or representative to insert here in (patent Application number

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL. ASSIGN AND TRANSFER w CHINA ACADEMY OF TELECOMMUNICATIONS TECHNOLOGY, having a place of business at No.40 Xueyuan Rd., Haidian District, Beijing 100191, China, Chereinafter referred to as "ASSIGNEE") the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the above-identified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which is a national phase filing of PCT/CN2017/119381 filed on December 28, 2017; which in turn claims priority to CN 201611236137.2 filed on December 28, 2016; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States:

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred berein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of FLENER IP & BUSINESS LAW the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.P.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

	LEGAL NAME OF INVENTOR	
	Inventor: Mengjun WANG, Date: 4-3-20/9	
	Signature: Mengjun Wong	
-		

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PATENT REEL: 049141 FRAME: 0105

RECORDED: 05/10/2019