

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6424314

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BAOCHANG LIU	10/26/2020
QIANG LIU	10/23/2020
YUSHENG LI	10/26/2020
QIFAN WANG	10/27/2020
YONGGIANG LUO	10/28/2020
GUANJUN HAN	10/27/2020
RECEIVING PARTY DATA	
Name:	CHINA MOBILE GROUP DESIGN INSTITUTE CO., LTD.
Street Address:	NO. 16, DAN LING STREET,
Internal Address:	HAIDIAN DISTRICT
City:	BEIJING
State/Country:	CHINA
Postal Code:	100080
Name:	CHINA MOBILE COMMUNICATIONS GROUP CO.,LTD.
Street Address:	29, JINRONG AVE.
Internal Address:	XICHENG DISTRICT
City:	BEIJING
State/Country:	CHINA
Postal Code:	100032
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17059518
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Phone:	6169499610
Email:	ptomail@priceheneveld.com
Correspondent Name:	PRICE HENEVELD LLP
Address Line 1:	695 KENMOOR SE
PATENT	

Address Line 2:	P O BOX 2567
Address Line 4:	GRAND RAPIDS, MICHIGAN 49501

ATTORNEY DOCKET NUMBER:	DRA007 P334
--------------------------------	-------------

NAME OF SUBMITTER:	AARON J. WONG
---------------------------	---------------

SIGNATURE:	/Aaron J. Wong/
-------------------	-----------------

DATE SIGNED:	12/01/2020
---------------------	------------

	This document serves as an Oath/Declaration (37 CFR 1.63).
--	--

Total Attachments: 12

source=1G94633#page1.tif
source=1G94633#page2.tif
source=1G94633#page3.tif
source=1G94633#page4.tif
source=1G94633#page5.tif
source=1G94633#page6.tif
source=1G94633#page7.tif
source=1G94633#page8.tif
source=1G94633#page9.tif
source=1G94633#page10.tif
source=1G94633#page11.tif
source=1G94633#page12.tif

**COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR
DESIGN APPLICATION USING AN APPLICATION DATA SHEET
(37 CFR 1.76) AND ASSIGNMENT**

Title of Invention	METHOD AND DEVICE FOR CONTROLLING DISTRIBUTED DIRECT CURRENT POWER SUPPLY SYSTEM
As a below named inventor, I hereby declare that:	
This declaration	
is directed to:	<input checked="" type="checkbox"/> The attached application, or
	<input type="checkbox"/> United States application or PCT international application number _____ filed on _____
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.	
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.	

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 MOBILE GROUP DESIGN INSTITUTE CO., LTD., having a place of business at No. 16, Dan Ling Street, Haidian District, Beijing, P.R. CHINA, and China Mobile Communications Group Co. Ltd., having a place of business at 29, Jinrong Ave., Xicheng District, Beijing 100032, CHINA

(each hereinafter 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/CN2019/087789 filed on May 21, 2019; which in turn claims priority to CN201810522961.7 filed on May 28, 2018; 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 herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

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.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: Baochang LIU	Date: 2020.10.26
Signature: Baochang LIU	

**COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR
DESIGN APPLICATION USING AN APPLICATION DATA SHEET
(37 CFR 1.76) AND ASSIGNMENT**

Title of Invention	METHOD AND DEVICE FOR CONTROLLING DISTRIBUTED DIRECT CURRENT POWER SUPPLY SYSTEM
As a below named inventor, I hereby declare that:	
This declaration	
is directed to:	<input checked="" type="checkbox"/> The attached application, or
	<input type="checkbox"/> United States application or PCT international application number _____ filed on _____
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.	
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.	

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 MOBILE GROUP DESIGN
INSTITUTE CO., LTD., having a place of business at No. 16, Dan Ling Street, Haidian
District, Beijing, P.R. CHINA, and China Mobile Communications Group Co. Ltd.,
having a place of business at 29, Jinrong Ave., Xicheng District, Beijing 100032, CHINA

(each hereinafter 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/CN2019/087789 filed on May 21, 2019; which in turn claims priority to
CN201810522961.7 filed on May 28, 2018; 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 herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

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.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: <u>Qians LIU</u>	Date: <u>2020.10.23.</u>
Signature: <u>Qians Liu</u>	

**COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR
DESIGN APPLICATION USING AN APPLICATION DATA SHEET
(37 CFR 1.76) AND ASSIGNMENT**

Title of Invention	METHOD AND DEVICE FOR CONTROLLING DISTRIBUTED DIRECT CURRENT POWER SUPPLY SYSTEM
<p>As a below named inventor, I hereby declare that:</p> <p>This declaration</p> <p>is directed to: <input checked="" type="checkbox"/> The attached application, or</p> <p style="padding-left: 100px;"><input type="checkbox"/> United States application or PCT international application number _____ filed on _____</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>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.</p>	

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 MOBILE GROUP DESIGN INSTITUTE CO., LTD., having a place of business at No. 16, Dan Ling Street, Haidian District, Beijing, P.R. CHINA, and China Mobile Communications Group Co., Ltd., having a place of business at 29, Jinrong Ave., Xicheng District, Beijing 100032, CHINA (each hereinafter 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/CN2019/087789 filed on May 21, 2019; which in turn claims priority to CN201810522961.7 filed on May 28, 2018; 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 herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

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.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: Yushens Li	Date: 2020.10.26
Signature: <i>Yushens Li</i>	

**COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR
DESIGN APPLICATION USING AN APPLICATION DATA SHEET
(37 CFR 1.76) AND ASSIGNMENT**

Title of Invention	METHOD AND DEVICE FOR CONTROLLING DISTRIBUTED DIRECT CURRENT POWER SUPPLY SYSTEM
<p>As a below named inventor, I hereby declare that:</p> <p>This declaration is directed to: <input checked="" type="checkbox"/> The attached application, or <input type="checkbox"/> United States application or PCT international application number _____ filed on _____</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>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.</p>	

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 MOBILE GROUP DESIGN
INSTITUTE CO., LTD., having a place of business at No. 16, Dan Ling Street, Haidian
District, Beijing, P.R. CHINA, and China Mobile Communications Group Co., Ltd.,
having a place of business at 29, Jirong Ave., Xicheng District, Beijing 100032, CHINA
(each hereinafter 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/CN2019/087789 filed on May 21, 2019; which in turn claims priority to
CN201810522961.7 filed on May 28, 2018; 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 herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

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.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: <u>Qifan WANG</u>	Date: <u>2020.10.27</u>
Signature: <u>Qifan Wang</u>	

**COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR
DESIGN APPLICATION USING AN APPLICATION DATA SHEET
(37 CFR 1.76) AND ASSIGNMENT**

Title of Invention	METHOD AND DEVICE FOR CONTROLLING DISTRIBUTED DIRECT CURRENT POWER SUPPLY SYSTEM
<p>As a below named inventor, I hereby declare that:</p> <p>This declaration</p> <p>is directed to: <input checked="" type="checkbox"/> The attached application, or</p> <p style="padding-left: 150px;"><input type="checkbox"/> United States application or PCT international application number _____ filed on _____</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>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.</p>	

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 MOBILE GROUP DESIGN INSTITUTE CO., LTD., having a place of business at No. 16, Dan Ling Street, Haidian District, Beijing, P.R. CHINA, and China Mobile Communications Group Co., Ltd., having a place of business at 29, Jinrong Ave., Xicheng District, Beijing 100032, CHINA (each hereinafter 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/CN2019/087789 filed on May 21, 2019; which in turn claims priority to CN201810522961.7 filed on May 28, 2018; 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 herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

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.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: <u>Yongqiang LUO</u>	Date: <u>2010.10.28</u>
Signature: <u>Yongqiang LUO</u>	

**COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR
DESIGN APPLICATION USING AN APPLICATION DATA SHEET
(37 CFR 1.76) AND ASSIGNMENT**

Title of Invention	METHOD AND DEVICE FOR CONTROLLING DISTRIBUTED DIRECT CURRENT POWER SUPPLY SYSTEM
<p>As a below named inventor, I hereby declare that:</p> <p>This declaration</p> <p>is directed to: <input checked="" type="checkbox"/> The attached application, or</p> <p style="padding-left: 150px;"><input type="checkbox"/> United States application or PCT international application number _____ filed on _____</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>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.</p>	

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 MOBILE GROUP DESIGN INSTITUTE CO., LTD., having a place of business at No. 16, Dan Ling Street, Haidian District, Beijing, P.R. CHINA, and China Mobile Communications Group Co., Ltd., having a place of business at 29, Jinrong Ave., Xicheng District, Beijing 100032, CHINA (each hereinafter 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/CN2019/087789 filed on May 21, 2019; which in turn claims priority to CN201810522961.7 filed on May 28, 2018; 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 herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

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.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: <u>Guanjun HAN</u>	Date: <u>2020.12.27</u>
Signature: <u>Guanjun HAN</u>	