506385112 12/04/2020

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| LEIMING ZHANG | 12/02/2020 |
| YIFAN LIU | 09/12/2018 |
| MING LEI | 11/14/2020 |

RECEIVING PARTY DATA

| Name: | HUAWEI TECHNOLOGIES CO., LTD. |
|-------------------|--------------------------------|
| Street Address: | HUAWEI ADMINISTRATION BUILDING |
| Internal Address: | BANTIAN, LONGGANG DISTRICT |
| City: | SHENZHEN, GUANGDONG |
| State/Country: | CHINA |
| Postal Code: | 518129 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16455999 |

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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: apsi@fr.com

Correspondent Name: FISH & RICHARDSON P.C.

Address Line 1: P.O. BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

| ATTORNEY DOCKET NUMBER: | 43968-0809001 | |
|-------------------------|----------------|--|
| NAME OF SUBMITTER: | EMILY PALMER | |
| SIGNATURE: | /Emily Palmer/ | |
| DATE SIGNED: | 12/04/2020 | |

Total Attachments: 6

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PATENT 506385112 REEL: 054542 FRAME: 0635

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PATENT REEL: 054542 FRAME: 0636

Attorney Docket No. Client Reference No. 85282057US07

ASSIGNMENT

WHEREAS, WE,

Leiming Zhang Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

Ming Lei Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; Yifan Liu Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

have invented and own a certain invention entitled:

DATA TRANSMISSION METHOD, TRANSMITTING DEVICE, AND RECEIVING DEVICE

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2019-06-28, under U.S. Application No. 16455999 and

WHEREAS, HUAWEI TECHNOLOGIES CO.,LTD., Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA;, hereinafter referred to as Assignee, is desirous of acquiring the entire domestic and foreign right, title, and interest in and under the invention described in the patent application.

Now, Therefore, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, we assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns the full and exclusive rights in and to the invention in the U.S. and every foreign country and the entire right, title, and interest in and to the patent application and other such applications (e.g., provisional applications, non-provisional applications, continuations, continuations-in-part, divisionals, reissues, reexaminations, National phase applications, including petty patent applications, and utility model applications) that may be filed in the United States and every foreign country on the invention, and the patents, extensions, or derivations thereof, both foreign and domestic, that may issue thereon, and we do hereby authorize and request the Commissioner of Patents to issue U.S. patents to the above-mentioned Assignee agreeably with the terms of this assignment document.

WE HEREBY AUTHORIZE the Assignee to insert in this assignment document the filing date and application number of the application if the date and number are unavailable at the time this document is executed.

WE DO HEREBY COVENANT and agree with the Assignee that we will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and that we will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to

| making application for and obtaining original reissued, reexamined, and National phase point the invention, and in enforcing any right applications or patents, and by executing s | issignment, and render all necessary assistance in inal, continuation, continuation-in-part, divisional, atents of the U.S. or of any and all foreign countries its or chooses in action accruing as a result of such tatements and other affidavits, it being understood shall bind, and inure to the benefit of, the assigns to. |
|--|--|
| IN WITNESS WHEREOF, We have here | runder set our hands on the dates shown below. |
| | .ŝ |
| Date Dec. 2, 2020 | Leiming Zhang Leiming Zhang |

Yifan Liu

Ming Lei

In re Appln. of Zhang et al. Attorney Docket No. _____

Date____

Date____

Attorney Docket No. _____ Client Reference No. 85282057US07

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| In re Appln. of Zhang et al. Attorney Docket No | |
|--|---|
| perfect the Assignee's enjoyment of this as making application for and obtaining origin reissued, reexamined, and National phase par on the invention, and in enforcing any right applications or patents, and by executing stathat the foregoing covenant and agreement and legal representatives of all parties hereto | the Assignee may deem necessary or desirable to signment, and render all necessary assistance in hal, continuation, continuation-in-part, divisional, tents of the U.S. or of any and all foreign countries s or chooses in action accruing as a result of such attements and other affidavits, it being understood shall bind, and inure to the benefit of, the assigns of the court hands on the dates shown below. |
| | |
| Date | Leiming Zhang |
| Date_2018. 9.12 | Yifan Liu Yifan Liu |

Ming Lei

Attorney Docket No. Client Reference No. 85282057US07

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Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

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| In re A | ppin. | of Zh | ung et | al. |
|---------|-------|-------|--------|-----|
| Attorno | | | | |

perfect the Assignee's enjoyment of this assignment, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, reissued, reexamined, and National phase patents of the U.S. or of any and all foreign countries on the invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, and by executing statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

IN WITNESS WHEREOF, We have hereunder set our hands on the dates shown below.

| Date | Leiming Zhang |
|------------|---------------|
| Date | Yifan Liu |
| DateNov.14 | Ming Lei |