505008548 07/18/2018

PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------|----------------|
| JIAN YIN | 04/27/2018 |
| JINQIU LIAO | 05/03/2018 |
| XIN XIAO | 03/19/2018 |
| CHAO LIU | 03/20/2018 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15877401 |

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: 404-815-6500

Email: Isun@kilpatricktownsend.com

Correspondent Name: KILPATRICK TOWNSEND & STOCKTON LLP (HUAW

Address Line 1: 1100 PEACHTREE STREET

Address Line 2: SUITE 2800

Address Line 4: ATLANTA, GEORGIA 30309

| ATTORNEY DOCKET NUMBER: | 088963-1073418 (012600US) | |
|-------------------------|---------------------------|--|
| NAME OF SUBMITTER: | CHARLES W. GRAY | |
| SIGNATURE: | /Charles W. Gray/ | |
| DATE SIGNED: | 07/18/2018 | |

Total Attachments: 8

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PATENT 505008548 REEL: 046380 FRAME: 0605

PATENT REEL: 046380 FRAME: 0606

PATENT Attorney Docket No. 088963-1073418 (012600US) Client Reference No. 84540970US07

ASSIGNMENT

WHEREAS, WE,

Jian Yin Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA: and

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

Jingiu Liao

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

Chao Liu

Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong

P.R.CHINA:

have invented and own a certain invention entitled:

DATA TRANSMISSION METHOD AND DEVICE

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2018-01-23, under U.S. Application No. 15877401 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

Joseph J

other writings and do such additional acts as the Assignee may deem necessary or desirable to 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.

| Date April 27, 2018 | Jian Ym |
|---------------------|-------------|
| Date | Jian Yin |
| Date | |
| | Jinqiu Liao |
| Date | |
| | Xin Xiao |
| Date | |
| | Chao Liu |

Attorney Docket No. 088963-1073418 (012600US) Client Reference No. 84540970US07

ASSIGNMENT

WHEREAS, WE,

Jian Yin Jinqiu Liao

Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong

B.B. GHELLA.

P.R.CHINA; and P.R.CHINA; and

Xin Xiao Chao Liu

Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong

B. D. CHENIA and Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong

B. D. CHENIA

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PATENT REEL: 046380 FRAME: 0609

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.

| Date | | |
|------------------|-------------|--|
| | Jian Yin | |
| DateMay 3 . 2018 | Jinque Lice | |
| | Jinqiu Liao | |
| Date | | |
| | Xin Xiao | |
| Date | _ | |
| | Chao Liu | |

ASSIGNMENT

WHEREAS, WE,

Jian Yin Jinqiu Liao

Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong
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Bantian, Longgang District
Shenzhen, 518129, Guangdong

P.R.CHINA; and P.R.CHINA; and

Xin Xiao Chao Liu

Huawei Administration Building
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PATENT REEL: 046380 FRAME: 0611

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| Date | |
|--------------------|-------------|
| | Jian Yin |
| | |
| Date | |
| | Jinqiu Liao |
| Date Mor. 19, 2018 | Xin Xiao |
| | Xin Xiao |
| | |
| Date | |
| | Chao Liu |

Attorney Docket No. 088963-1073418 (012600US) Client Reference No. 84540970US07

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| Date | |
|---------------------|-------------|
| | Jian Yin |
| Date | |
| | Jinqiu Liao |
| Date | |
| | Xin Xiao |
| Date March 20, 2018 | Chao Liu |
| | Chao Liu |