## 505177452 11/06/2018

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT5224220

#### **CONVEYING PARTY DATA**

| Name          | Execution Date |
|---------------|----------------|
| CHANGZHENG SU | 11/01/2018     |
| YANG ZOU      | 11/01/2018     |

## **RECEIVING PARTY DATA**

| Name:             | HUAWEI TECHNOLOGIES CO., LTD.  |  |
|-------------------|--------------------------------|--|
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| City:             | Shenzhen, Guangdong            |  |
| State/Country:    | CHINA                          |  |
| Postal Code:      | 518129                         |  |

### **PROPERTY NUMBERS Total: 1**

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 16139307 |

### **CORRESPONDENCE DATA**

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Address Line 4: DALLAS, TEXAS 75252

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|-------------------------|--------------------|--|
| NAME OF SUBMITTER:      | SHERRY L. MCQUEEN  |  |
| SIGNATURE:              | /SHERRY L MCQUEEN/ |  |
| DATE SIGNED:            | 11/06/2018         |  |

### **Total Attachments: 4**

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PATENT 505177452 REEL: 047423 FRAME: 0515

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PATENT REEL: 047423 FRAME: 0516

PATENT

Attorney Docket No.
Client Reference No. 84703854US04

#### ASSIGNMENT

WHEREAS, WE.

Changzheng Su Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and Yang Zou Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA:

have invented and own a certain invention entitled:

QUANTUM SIGNAL DETECTION METHOD AND QUANTUM SIGNAL DETECTION APPARATUS

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2018-09-24, under U.S. Application No. 16139307 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 Assignce 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 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

| In re Appln. of Su et al. Attorney Docket No |  |
|--|--|
|  | atements and other affidavits, it being understood shall bind, and inure to the benefit of, the assigns o. |
| IN WITNESS WHEREOF, We have here             | under set our hands on the dates shown below.  |
| Date   | Chungsheng Su  |
|  | Changzheng Su  |
| Date   | Yang Zou   |
|  | 1 mile 200   |

#### PATENT

Attorney Docket No.
Client Reference No. 84703854US04

#### ASSIGNMENT

WHEREAS, WE.

Changzheng Su Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and Yang Zou Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA:

have invented and own a certain invention entitled:

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for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2018-09-24, under U.S. Application No. 16139307 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 Assignce 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 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

| In re Appln, of Su et al.<br>Attorney Docket No |   |
|---|---|
|   | ecuting statements and other affidavits, it being understood<br>preement shall bind, and inure to the benefit of, the assigns<br>ties hereto. |
| IN WITNESS WHEREOF, We l                        | nave hereunder set our hands on the dates shown below.  |
| Date  |   |
|   | Changzheng Su   |
| Date Nov. 1, 2019                               | Yang Bac  |
|   | Yang Zou  |