

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4739377

|   |                                |
|---|--------------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                 |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                     |
| <b>CONVEYING PARTY DATA</b>   |                                |
| <b>Name</b>   | <b>Execution Date</b>          |
| DEYUAN CHANG  | 06/23/2008                     |
| ZHIYU XIAO  | 07/15/2016                     |
| FAN YU  | 07/15/2016                     |
| YU ZHAO   | 05/13/2016                     |
| <b>RECEIVING PARTY DATA</b>   |                                |
| <b>Name:</b>  | HUAWEI TECHNOLOGIES CO., LTD.  |
| <b>Street Address:</b>  | HUAWEI ADMINISTRATION BUILDING |
| <b>Internal Address:</b>  | BANTIAN, LONGGANG DISTRICT     |
| <b>City:</b>  | SHENZHEN, GUANGDONG            |
| <b>State/Country:</b>   | CHINA                          |
| <b>Postal Code:</b>   | 518129                         |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                |
| <b>Property Type</b>  | <b>Number</b>                  |
| Application Number:   | 14984351                       |
| <b>CORRESPONDENCE DATA</b>  |                                |
| <b>Fax Number:</b>  | (202)434-1501                  |
| <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> |                                |
| <b>Phone:</b>   | 2024341500                     |
| <b>Email:</b>   | msmircich@s-n-h.com            |
| <b>Correspondent Name:</b>  | STAAS & HALSEY, LLP            |
| <b>Address Line 1:</b>  | 1201 NEW YORK AVE NW           |
| <b>Address Line 2:</b>  | SUITE 700                      |
| <b>Address Line 4:</b>  | WASHINGTON, D.C. 20005         |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 2382.1579                      |
| <b>NAME OF SUBMITTER:</b>   | STEPHEN G. MCCLURE             |
| <b>SIGNATURE:</b>   | /Stephen G. McClure/           |
| <b>DATE SIGNED:</b>   | 12/18/2017                     |
| <b>Total Attachments: 11</b>  |                                |

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**PATENT**

Attorney Docket No. \_\_\_\_\_  
Client Reference No. 83608913US04

**ASSIGNMENT**

**WHEREAS, We,**

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

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

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

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

have invented and own a certain invention entitled:

**METHOD FOR IMPLEMENTING TURBO EQUALIZATION COMPENSATION, TURBO EQUALIZER AND SYSTEM**

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 12/30/2015, under U.S. Application No. 14984351 and

**WHEREAS, HUAWEI TECHNOLOGIES CO., LTD.**, of 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

In re Appln. of Chang et al.  
 Attorney Docket No. \_\_\_\_\_

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 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 _____                 | _____        |
|                            | Deyuan Chang |
| Date <u>Jul. 15. 2016</u>  | _____        |
|                            | Zhiyu Xiao   |
| Date <u>Jul. 15, 2016.</u> | _____        |
|                            | Fan Yu       |
| Date _____                 | _____        |
|                            | Yu Zhao      |

**ASSIGNMENT**

**WHEREAS, WE,**

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

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

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

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

have invented and own a certain invention entitled:

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**WHEREAS**, HUAWEI TECHNOLOGIES CO., LTD., of 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

In re Appln. of Chang et al.  
Attorney Docket No. \_\_\_\_\_

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 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 _____               | _____          |
|                          | Deyuan Chang   |
| Date _____               | _____          |
|                          | Zhiyu Xiao     |
| Date _____               | _____          |
|                          | Fan Yu         |
| Date <u>May 13, 2016</u> | <u>Yu Zhao</u> |
|                          | Yu Zhao        |

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY  
OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)**

|   |  |       |           |         |        |         |    |
|---|--|-------|-----------|---------|--------|---------|----|
| <b>Title of<br/>Invention</b>   | METHOD FOR IMPLEMENTING TURBO EQUALIZATION COMPENSATION, TURBO<br>EQUALIZER AND SYSTEM |       |           |         |        |         |    |
| This statement is directed to:  |  |       |           |         |        |         |    |
| <input type="checkbox"/> The attached application,  |  |       |           |         |        |         |    |
| OR  |  |       |           |         |        |         |    |
| <input checked="" type="checkbox"/> United States application or PCT international application number <u>14984351</u> filed on <u>12/30/2015</u>                                  |  |       |           |         |        |         |    |
| <b>LEGAL NAME of inventor to whom this substitute statement applies:</b>  |  |       |           |         |        |         |    |
| (E.g., Given Name (first and middle (if any)) and Family Name or Surname)   |  |       |           |         |        |         |    |
| Deyuan Chang  |  |       |           |         |        |         |    |
| Residence (except for a deceased or legally incapacitated inventor):  |  |       |           |         |        |         |    |
| City  | Shenzhen   | State | Guangdong | Country | CN     |         |    |
| Mailing Address (except for a deceased or legally incapacitated inventor):  |  |       |           |         |        |         |    |
| Huawei Administration Building<br>Bantian, Longgang District  |  |       |           |         |        |         |    |
| City  | Shenzhen   | State | Guangdong | Zip     | 518129 | Country | CN |
| I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.                         |  |       |           |         |        |         |    |
| The above-identified application was made or authorized to be made by me.   |  |       |           |         |        |         |    |
| I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. |  |       |           |         |        |         |    |
| Relationship to the inventor to whom this substitute statement applies:   |  |       |           |         |        |         |    |
| <input type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),  |  |       |           |         |        |         |    |
| <input type="checkbox"/> Assignee,  |  |       |           |         |        |         |    |
| <input checked="" type="checkbox"/> Person to whom the inventor is under an obligation to assign,   |  |       |           |         |        |         |    |
| <input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or                                  |  |       |           |         |        |         |    |
| <input type="checkbox"/> Joint Inventor.  |  |       |           |         |        |         |    |

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**SUBSTITUTE STATEMENT**

Circumstances permitting execution of this substitute statement:

- ☐ Inventor is deceased.
- ☐ Inventor is under legal incapacity.
- ☒ Inventor cannot be found or reached after diligent effort, or
- ☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.
- OR
- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

**PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

Name: **Yafang SUN** Date (Optional):

Signature: **APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

If the applicant is a juristic entity, list the applicant name and the title of the signer:

**Huawei Technologies Co., Ltd.**

Applicant Name:

Title of Person Executing  
This Substitute Statement: **President**

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City **Shenzhen** State **Guangdong** Country **CN**

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

**Huawei Administration Building**  
**Bantian, Longgang District**

City **Shenzhen** State **Guangdong** Zip **518129** Country **CN**

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.



## VERIFICATION OF TRANSLATION

I, Liwen LONG, hereby solemnly affirm that I have a fluent knowledge of English and Chinese languages, and that the document titled "Partial Translation of Huawei Technologies Co. Ltd. Employment Agreement " is the true and accurate translation of a relevant part of the Employment Agreement between Huawei Technologies Co. Ltd and employee Deyuan Chang

---

Dated this 2nd day of December, 2017

Signature of Translator

*Liwen Long*



# 华为技术有限公司员工聘用协议书

Huawei Technologies Co., Ltd.

Employment Agreement

聘用方(甲方)Employer (Party A): Huawei Technologies Co., Ltd.

住所 Location: Huawei Headquarters, Bantian, Longgang District Shenzhen,  
P.R. China

法定代表人 Legal Representative: Sun Yafang

受聘方(乙方)Employee (Party B): 常德远 Deyuan Chang

工号 Employee ID: 00133811 国籍 Nationality: 中国

护照号码 Passport Number/身份证号码 Citizen Identification:

户口所在地 Hukou Place (For Chinese):

北京市海淀区

家庭住址 Personal Address (For Chinese):

山西省交城县义联

PATENT

REEL: 044422 FRAME: 0423



## 11 知识产权 Intellectual Property Rights

### 11.1 职务成果

#### Service Achievements

11.1.1 双方确认，乙方在甲方工作期间（包括离职之日起一年内），由于履行本人职务或甲方安排的本人职务之外的工作任务，或者主要利用甲方的物质条件和业务信息等，自行或与他人共同构思、开发、创造或研制出的发明创造、实用新型、外观设计、技术诀窍、产品、计算机软件、半导体芯片、作品或其他形式的智力成果，其中所包含的或与之有关的全部知识产权权利或其他财产权利（以下统称“知识产权”）均归甲方所有。

Both Party A and Party B agree that Party A owns all the intellectual property rights and/or other property rights (hereinafter referred to as intellectual property rights) included in or related to the inventions, practical innovations, appearance designs, technical know-hows, products, computer software, semiconductor chips, works, and/or intellectual achievements in any other form that are solely or jointly made, researched, developed, or created by Party B in performing Party B's duties or fulfilling other tasks appointed by Party A, or using physical conditions and business information of Party A, during the employment period (including within one year after Party B leaves the employment).

11.1.2 乙方同意以所有适当的方式通过适当的途径（包括但不限于申请专利、注册商标、登记软件等，相关费用由甲方承担）协助甲方或甲方指派的第三方，为甲方取得上述知识产权在任一国家、地区或全球范围内的各项权利。前述适当的方式包括但不限于：向甲方披露全部相关信息和数据，签署相关申请书、技术



说明书以及甲方认为在申请取得该等权利或向甲方（或其继承者、受让人和指定者）转让知识产权的专属权利、权属和利益时所必需的文书。乙方同意，乙方签署任何该等文书或文件的义务、或促使该等文书或文件被签署的义务，在其与甲方的劳动关系终止之后仍应继续存在。

Party B agrees to assist Party A or a third party appointed by Party A to acquire the rights pertaining to the aforesaid intellectual property rights in any country or region or the whole world in all proper ways through proper channels (including but not limited to patent application, trademark registration and software registration; at the expense of Party A). The foregoing proper ways include but are not limited to disclosure of all related information and data to Party A and signing related applications, technical descriptions, and other writings and documents deemed necessary by Party A in applying for these rights or transferring the exclusive rights, ownership and benefits of the intellectual property rights to Party A (or Party A's successor, assignee or appointed entity). Party B agrees that Party B's obligation to sign these writings and documents or assist in getting these writings and documents signed be valid after the termination of the employment.

11.1.3 甲方有权使用、转让或授权他人使用上述知识产权而无须获得乙方的同意。

Party A has the right to use, transfer, or authorize a third party to use the foregoing intellectual property rights without requesting the permission of Party B.

11.1.4 上述知识产权的署名权（依法律规定而应由甲方署名的除外），由作为发明人、制作人或设计人的乙方享有，并且乙方有权按甲方有关规定获得相应的物质奖励和精神鼓励。

Party B, as the inventor, producer, or designer, owns the right of authorship of the foregoing intellectual property rights (except in cases in which Party A owns the right of authorship by law) and Party B shall be entitled to physical and spiritual rewards according to related regulations of Party A.



## 签 字 页

## Signatures

双方尽悉本员工聘用协议书的内容，同意签字确认。

Party A and Party B fully understand the Agreement and agree to sign the Agreement.

甲方：华为技术有限公司

乙方：受聘方

Party A: Huawei Technologies Co., Ltd.

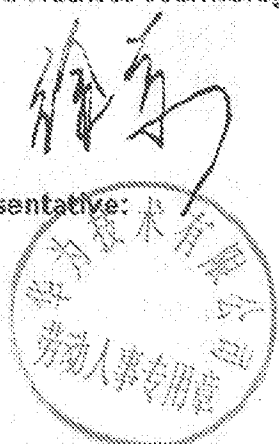
Party B: Party B:

代表：

Representative:

公章：

Seal:



签字：

Signature:

私人章：

Personal seal:

Deyuan Chang

日期：\_\_\_\_年\_\_\_\_月\_\_\_\_日

Date: \_\_\_\_\_ (MM DD, YYYY)

日期：2008年6月23日

Date: \_\_\_\_\_ (MM DD, YYYY)

PATENT