501820314 02/14/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| Tingzhao Li | 02/09/2012 |
| Jieke Shi | 02/09/2012 |
| Gengshi Wu | 02/09/2012 |
| Xiaoxiao Zheng | 02/09/2012 |
| Bin Xiong | 02/09/2012 |
| Yi Yang | 02/09/2012 |
| Jing Yang | 02/09/2012 |
| Fanni Ma | 02/09/2012 |

RECEIVING PARTY DATA

| Name: | HUAWEI DEVICE CO., LTD. | | |
|-------------------|------------------------------------|--|--|
| Street Address: | Building B2 Huawei Industrial Base | | |
| Internal Address: | Bantian, Longgang District | | |
| City: | Shenzhen, Guangdong | | |
| State/Country: | CHINA | | |
| Postal Code: | 518129 | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13328550 |

CORRESPONDENCE DATA

Fax Number: (312)321-4299 Phone: 3123214200

Email: usassignments@brinkshofer.com, mcalderon@brinkshofer.com Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Gustavo Siller, Jr.

Address Line 1: Brinks, Hofer, Gilson & Lione

Address Line 2: P.O. BOX 10395

PATENT REEL: 027703 FRAME: 0685 CH \$40 00 133

501820314

| Address Line 4: Chicago, ILLINOIS 60610 | | | | |
|--|---------------------|--|--|--|
| ATTORNEY DOCKET NUMBER: | 13674-678 | | | |
| NAME OF SUBMITTER: | Gustavo Siller, Jr. | | | |
| Total Attachments: 13 source=13674-678assign#page1.tif source=13674-678assign#page2.tif source=13674-678assign#page3.tif source=13674-678assign#page4.tif source=13674-678assign#page5.tif source=13674-678assign#page6.tif source=13674-678assign#page7.tif source=13674-678assign#page8.tif source=13674-678assign#page9.tif source=13674-678assign#page10.tif source=13674-678assign#page11.tif source=13674-678assign#page12.tif source=13674-678assign#page13.tif | | | | |

PATENT REEL: 027703 FRAME: 0686

Client/Matter No. 13674-678 Client Ref. No. 83059985US03

| | RECORDATION FORM COVER SHEET PATENTS ONLY | | | | | |
|---|--|---|-------------------|--|--|--|
| | To the Director of the U.S. Patent and Trade | mark Office: Please r | recoi | d the attached docur | ments or the new address(es) below: | |
| 1. | 1. Name of conveying Party(ies): | | | 2. Name and Address of receiving Party(ies): | | |
| | TINGZHAO LI / FEBRUARY 09, JIEKE SHI / FEBRUARY 09, 2 | | | Name: | HUAWEI DEVICE CO.,LTD. | |
| | GENGSHI WU / FEBRUARY 09, XIAOXIAO ZHENG / FEBRUARY 0 BIN XIONG / FEBRUARY 09, 2 YI YANG / FEBRUARY 09, 20 JING YANG / FEBRUARY 09, 20 FANNI MA / FEBRUARY 09, 20 | 2012 09, 2012 2012 012 2012 | | Address: | Building B2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. China | |
| | dditional name(s) of conveying party(ies) attached? | | | | | |
| 3. | , | (s): | | Additional name(s) ar | nd addresses attached? 🗌 Yes 🗵 No | |
| | Execution Date(s): February 09, 2012 | | | | | |
| | Assignment | | | | | |
| 4. Application or Patent Number(s). This document is being filed together with a new application. | | | | | er with a new application. | |
| A. | Patent Application No.(s): 13/328,550 | | B. | Patent No.(s): | | |
| | ۸۵ | dditional numboro offaol | ار مار راد مار | | | |
| 5. | | dditional numbers attacl | | | cations & patents involved: 1 | |
| ·. | concerning document should be maile | | 0. | TOTAL HO. OF APPIN | cations & patents involved: _i | |
| | | | 7. | Total Fee (37 CFF | R 1.21(h) & 3.41) \$ <u>40.00</u> | |
| | BRINKS HOFER GILSON & L PO BOX 10395 CHICAGO, IL 60610 | _IONE | | | arge by credit card arge to Deposit Account No. 23-1925 d (government interest not affecting title) | |
| | Phone: (312) 321-4200 | | 8. | Payment Information | tion: | |
| | Fax: (312) 321-4299 | | a. | Credit Card: La | ast 4 Numbers xpiration Date | |
| | | | b. | Account Numbe | or any Deficiencies to Deposit 23-1925 Name: Brinks Hofer Gilson & Lione | |
| 9. | Signature: /Gustavo Sille | r, Jr./ | | F | ebruary 14, 2012 | |
| | Signature | | | | Date | |
| | Gustavo Siller Name of Person S | · · · · · · · · · · · · · · · · · · · | | | ages including coversheet, and documents: 13 | |

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, PO Box 1450, Alexandria, VA 22313-1450

REEL: 027703 FRAME: 0687

Attorney Docket No. Client Reference No. 83059985US03

ASSIGNMENT

WHEREAS, WE,

Tingzhao LI BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Gengshi WU BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Bin XIONG BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Jing YANG BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and Jieke SHI BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Xiaoxiao ZHENG BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Yi YANG BuildingB2, HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.; and

Fanni MA BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;

have invented and own a certain invention entitled:
BANDWIDTH CONFIGURATION METHOD, DEVICE, AND SYSTEM
for which invention we have executed an application (provisional or non-provisional) for a U.S.
patent, which was filed on 16 Dec 2011, under U.S. Application No. 13328550, and

WHEREAS, HUAWEI DEVICE CO., LTD., of BuildingB2, Huawei Industrial Base, 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 Assignce agreeably with the terms of this assignment document.

| In re Appln. | of Li et | al. |
|--------------|----------|-----|
| Attorney Do | cket No |), |

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 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 Fel | bruary 9, 2012 | Tingzhao Li | : |
|--|--|--|---|
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | <i>i</i> | Tingzhao LI | |
| Date Feb. | ruary 9, 2012 | Yulin Li | |
| | | Witness | |
| Date Febr | clary 9, 2012 | Ling Lin | |
| M | | Witness | |
| | The state of the s | And the second s | |
| Date Feb | ruary 9. 2012 | Vieke SHI | gar girina and an |
| | J | lieke SHI | |
| Date Felo | many 9. 2012 | Nian PBVG | 7111-7171-7-2-MINUSUUMA |
| | • | \\/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | |
| Date Febr | my 9. 20/2 | Fengyn SUN Witness | uisassannannin lise |
| | J | Witness | |
| | \$ | And Committee of the Co | |
| Date Feb | mary 9. 2012 | Gengshi WU Gengshi WU | ······································ |
| | Ÿ | | |
| Date Febru | uary 9. 2012 | Nian Chen Witness | |
| . هـ . | | Thong Hang Thong | |
| Date 199 | ranggoor | Choraghang Thoras Witness | |

| Date | | |
|--|----------------|---|
| *************************************** | Xiaoxiao ZHENG | *********** |
| Date | | |
| | Witness | *************************************** |
| Date | | |
| | Witness | |
| Management of the Control of the Con | | |
| Date | | |
| | Bin XIONG | *************************************** |
| Date | Witness | |
| · | | |
| Date | Witness | *************************************** |
| demonstra | withess | |
| | | |
| Date | Yi YANG | |
| 1 5-40 | | |
| Date | Witness | ····· |
| Date | | |
| Date | Witness | |
| | | |
| - Andrews - Andr | | |
| Date | | |
| | Jing YANG | *************************************** |
| Date | West. | |
| | Witness | |
| Date | Witness | decimana. |
| | witness | |

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

3

| In re Appln. of Li et al. Attorney Docket No. | _ | |
|---|----------|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| - | | |
| Date | Fanni MA | |
| Date | | |
| | Witness | |
| Date | | |
| | Witness | |

Attorney Docket No. Client Reference No. 83059985US03

ASSIGNMENT

WHEREAS, WE,

Tingzhao LI BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Gengshi WU
BuildingB2, Huawei Industrial
Base Bantian, Longgang District
Shenzhen, 518129, Guangdong
P.R. CHINA, and

Bin XIONG BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Jing YANG BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and Jieke SHI BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Xiaoxiao ZHENG BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Yi YANG BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Fanni MA BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;

have invented and own a certain invention entitled:
BANDWIDTH CONFIGURATION METHOD, DEVICE, AND SYSTEM
for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 16 Dec 2011, under U.S. Application No. 13328550, and

WHEREAS, HUAWEI DEVICE CO., LTD., of BuildingB2, Huawei Industrial Base, 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.

| In | re | App | ln. | of | Li | et | a | 1. |
|----|----|-----|-----|----|------|----|---|----|
| At | to | ney | Do | ck | et l | No | | |

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 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 | Tingzhao LI |
|--|--|
| Date | VY TUTOOS |
| Date | VI (CHOO) |
| and a second sec | And the state of t |
| Date | Jieke SHI |
| Date | Witness |
| Date | Witness |
| | And the second s |
| Date | Gengshi WU |
| Thousa | |
| Date | Witness |
| Date | Witness |

| In re | Appli | i, of L | i et a | d. |
|-------|--------|---------|--------|----|
| Atte | rnêŷ D | ocket | No. | |

| Date February 9 2012 | Xiao Xian ZHBNG Xiaoxiao ZHENG |
|---|--|
| Date February 9 2012 | Lingli Pang Witness |
| Date February 9 2012 | Li Feng Witness |
| Date Fohrwary 9, 20/2 | Bin Xiong Bin XIONG |
| Date February 9. 2012 | Guo Wei Li Witness |
| Date February - 9. 2012 | Rai Liu Witness |
| | Yi Yang |
| Date February 9, 2012 | Yi Yang YI YANG |
| Date February 9, 20/2 Date February 9, 20/2 | Shurong Jiho Witness |
| Date February 9, 20/2 Date February 9, 20/2 Date February 9, 20/2 | Yi YANG Shurong Stoo Witness Wenguan Hu Witness |
| Date February 9, 20/2 Date February 9, 20/2 | Shurong Jibo Witness Wenguan Hu Witness |
| Date February 9, 20/2 | Shurong Jiho Witness Wenguan Hull Witness Jing Yang Jing YANG |
| Date February 9, 20/2 Date February 9, 20/2 | Shurong Jiho Witness Wenguan Hu Witness Jing Yang |

| In re Appln. of Li et al. Attorney Docket No. | | |
|---|----------|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| y ³ 844 | | |
| Date | Fanni MA | |
| Date | Witness | The state of the s |
| Date | Witness | |

Attorney Docket No. Client Reference No. 83059985US03

ASSIGNMENT

WHEREAS, WE,

Tingzhao LI BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Gengshi WU BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Bin XIONG BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Jing YANG BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA,;and Jieke SHI BuildingB2, Huawei Industrial Base Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.; and

Xiaoxiao ZHENG BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Yi YANG BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;and

Fanni MA BuildingB2,HuaweiIndustrialBase Bantian, Longgang District Shenzhen, 518129, Guangdong P.R. CHINA.;

have invented and own a certain invention entitled:
BANDWIDTH CONFIGURATION METHOD, DEVICE, AND SYSTEM
for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 16 Dec 2011, under U.S. Application No. 13328550, and

WHEREAS, HUAWEI DEVICE CO., LTD., of BuildingB2, Huawei Industrial Base, 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 Assignce agreeably with the terms of this assignment document.

| In re App | ln. of Li | et al. |
|-----------|-----------|--------|
| Attorney | | |

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 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 | |
|------|-------------|
| | Tingzhao LI |
| Date | |
| | Witness |
| Date | |
| | Witness |
| · w | |
| Date | |
| | Jieke SHI |
| Date | |
| | Witness |
| Date | · |
| Date | Witness |
| 4mm | |
| | · |
| Date | |
| | Gengshi WU |
| Date | |
| | Witness |
| Date | |
| | Witness |

| In re Appln. of Li et al. Attorney Docket No. | |
|--|--------------------|
| | |
| Date | Xiaoxiao ZHENG |
| Date | |
| Date | Witness |
| Date | |
| Date | |
| Date | Witness |
| Date | |
| Date | Yi YANG Witness |
| Date | |
| | |
| Date | Jing YANG |
| Date | Witness |
| Date | Witness |

3

| In re Appln. of Li et al. | ** |
|---------------------------|----|
| Attorney Docket No. | |

| Date February 9, 2012 | Fanni Ma Fanni MA |
|-----------------------|--------------------------|
| Date February 9, 2012 | yan ge |
| Date February 9. 2012 | Witness We Xie Witness |

4

C00 🛭

PATENT⁸⁰ \$102 11/52 REEL: 027703 FRAME: 0699