502197241 01/16/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| Satoshi NAGATA | 12/06/2012 |
| Yoshihisa KISHIYAMA | 12/06/2012 |
| Xiang YUN | 12/06/2012 |
| Jianchi ZHU | 12/06/2012 |
| Xiaoming SHE | 12/06/2012 |
| Lan CHEN | 12/06/2012 |

RECEIVING PARTY DATA

| Name: | NTT DOCOMO, INC. |
|-----------------|-------------------------|
| Street Address: | 11-1, Nagatacho 2-chome |
| City: | Chiyoda-ku, Tokyo |
| State/Country: | JAPAN |
| Postal Code: | 100-6150 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13703913 |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 17786/109001 (VAV)

PATENT REEL: 029640 FRAME: 0487 \$40.00 1370391

| NAME OF SUBMITTER: | Jonathan P. Osha |
|---|------------------|
| Total Attachments: 3 source=17786_109001_ASSN#page1.tif source=17786_109001_ASSN#page2.tif source=17786_109001_ASSN#page3.tif | |

PATENT REEL: 029640 FRAME: 0488

Assignment of Application (出願譲渡証)

私(我々)

WHEREAS, I (WE), INSERT NAMES AND RESIDENCE ADDRESS OF THE INVENTORS c/o Intellectual Property Department, NTT DOCOMO, INC., Satoshi NAGATA 発明者の氏名及び住所を記入 SANNO PARK TOWER, 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan c/o Intellectual Property Department, NTT DOCOMO, INC., Yoshihisa KISHIYAMA SANNO PARK TOWER, 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan c/o Intellectual Property Department, NTT DOCOMO, INC., Xiang YUN SANNO PARK TOWER, 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan c/o Intellectual Property Department, NTT DOCOMO, INC., Jianchi ZHU SANNO PARK TOWER, 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan c/o Intellectual Property Department, NTT DOCOMO, INC., Xiaoming SHE SANNO PARK TOWER, 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan c/o Intellectual Property Department, NTT DOCOMO, INC., Lan CHEN SANNO PARK TOWER, 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan は下記における新しい有用な改良を respectively, have invented certain new and useful improvements in: INSERT TITLE OF INVENTION 発明の名称を配入 USER EQUIPMENT AND CHANNEL STATE INFORMATION FEEDBACK METHOD , filed (Application No. __ and WHEREAS, 一方、 NTT DOCOMO, INC. (hereinafter referred to as "ASSIGNEE") having a place of business at (以下「譲受人」)は、 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 Japan

> **PATENT** REEL: 029640 FRAME: 0489

に営業所を有し、該発明について、 及び合衆国及びその領土及びあら ゆる全ての外国において付与された あらゆる特許証について、全ての権 利、権原、及び利益を取得すること を希望し、

従ってこに、受領を確認した有効にして価値ある対価と引き換えに、 私(我々)は、本譲渡証により、合定 おける該発明に対する完全で排他 的な権利と、合衆国及びその領土及びをの領土及びをの領土及びをの領土及びをでの外国に があらゆる全での外国においてつされるあらゆる全での特許、継続に されるびその分割、再あらゆる全ての と替え、のなび更新のある。 と替えての権利、権原、及びしている。 をとを、該譲受人に売却し、譲渡し、 及び移転する。 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

私(我々)は、ここに、この譲渡及び 売却がなされなかったならば私 (我々)により保持されたであろう場合と同様に完全且つ全体的に、最終 で、該譲受人、その(彼の)承継人の び非譲渡者による専用及び利証を ために、あらゆる全ての特許証についての私(我々)の を特許証にでの権利、設定の会人 としての該受人に、合衆回と の領土及びあらゆる全ての外国に おいて特許庁当局が発行することを 許可し及び要請する。 I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

更に、私(我々)は私(我々)が知る 該発明に関するあらゆる事実を該譲 受人又はその(彼の)代理人に伝 え、あらゆる法的手続きにおいて証 **営し、法の認めた書面に署名し、全** ての分割、継続、差し替え、更新、及 び再発行出願に署名し、全ての必要 な譲渡書類に署名することで該特許 証のあらゆるもの全てが該譲受人に 発行されるようにし、正当な全ての 誓約をし、更に該譲受人、その(彼 の)承継人及び非譲渡者が合衆国 及びその領土及びあらゆる全ての 外国において該発明について適切 な保護を取得し及び行使することを 援助するために一般に可能なことを 全て行うことを、私(我々)は同意す る。

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries

Date: Dec . 6 . 20/2

(Signature of Inventor)

Satoshi NAGATA

Date: Dec6, 2012

(Signature of Inventor)

Yoshihisa K/SHIYAMA

PATENT

REEL: 029640 FRAME: 0490

| Date: | Dec. 6. 2012 | Niang | e tun | |
|-------|--------------|------------------------------------|--------------|---|
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| Date: | Pec. 6.2012 | Jianen | · Zhu | |
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| Date: | Deck. 12012 | Discomine | Sho | |
| 日付 | | (Signature of Inventor) 発明者署名 : | Xiaoming SHE | |
| Date: | Der. 6.2012 | Lan | Chen | |
| 日付 | | (Signature of Inventor) | I an CHEN | |

PATENT REEL: 029640 FRAME: 0491

RECORDED: 01/16/2013