

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
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| LIU LIU | 02/25/2019 |
| HUILING JIANG | 02/13/2019 |
| KAZUKI TAKEDA | 02/13/2019 |
| SATOSHI NAGATA | 02/13/2019 |
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| State/Country: | JAPAN |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 16347083 |
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| SIGNATURE: | /Jessica Mudge/ |
| DATE SIGNED: | 06/24/2019 |
| Total Attachments: 3 | |
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DECLARATION AND ASSIGNMENT¹

The undersigned acknowledges that this document is being used both as an assignment of the invention and as the declaration (37 CFR 1.63) for a Utility or Design Application entitled:

**BEAM DETERMINATION METHOD, DOWNLINK TRANSMISSION
DEMODULATION METHOD, USER EQUIPMENT AND BASE STATION**

As a below named inventor, I hereby declare that:

This declaration is directed to (check one):

- The attached application, or
- United States application or PCT international application number
PCT/CN2017/108336, filed October 30, 2017

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified application.

I hereby acknowledge that any willful false statement made in this Declaration and Assignment is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

For good and valuable consideration, the receipt and adequacy whereof I hereby acknowledge, I hereby confirm any prior assignment to **NTT DOCOMO, INC., Sanno Park Tower, 2-11-1, Nagata-cho, Chiyoda-Ku, Tokyo JAPAN** (hereinafter "Assignee"), and to the extent that I have not already done so, agree to assign, and hereby do, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the above-identified application, to the above-identified application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the above-identified application, and any United

¹ This form requires an ADS if one has not yet been filed.

DECLARATION AND ASSIGNMENT

States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by me had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights.

I hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, any derivation proceedings relating thereto, and as to Letters Patent any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth.

I hereby covenant that I have not made and will not make any assignment, sale, license, agreement or encumbrance which would conflict with this Declaration and Assignment.

I hereby request the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and request that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

I hereby grant the law firm of Harness, Dickey & Pierce, P.L.C. the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

DECLARATION AND ASSIGNMENT

Jing WANG
Jing WANG
Feb. 25, 2019
Dated

Liu LIU
Liu LIU
Feb. 25, 2019
Dated

Huilig Jiang
Huilig JIANG
Feb. 13, 2019
Dated

Kazuki Takeda
Kazuki TAKEDA
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Satoshi Nagata
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