## 503355033 06/17/2015 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3401654

SUBMISSION TYPE:		NEW ASSIGNMENT
NATURE OF CONVEYA	NCE:	ASSIGNMENT
SEQUENCE:		2
CONVEYING PARTY	ΔΤΑ	
		Name Execution Da
DOCOMO INNOVATIO	NS, INC.	05/27/2015
RECEIVING PARTY D	ΑΤΑ	
Name:	NTT DO	DCOMO, INC.
Street Address:	Sanno	Park Tower, 11-1
Internal Address:	Nagata	-Cho, 2-chome
City:	Chiyoda	a-ku, Tokyo
State/Country:	JAPAN	
Postal Code:	100-61	50
Property Type	•	Number
Property Type		Number
Property Type Application Number:		<b>Number</b> 14731196
Application Number:		
	DATA	
Application Number: CORRESPONDENCE Fax Number: Correspondence will	DATA be sent to	14731196 (408)720-8383 <b>a the e-mail address first; if that is unsuccessful, it will be sent</b>
Application Number: CORRESPONDENCE Fax Number: Correspondence will I using a fax number, if	DATA be sent to f provideo	(408)720-8383 the e-mail address first; if that is unsuccessful, it will be sent ; if that is unsuccessful, it will be sent via US Mail.
Application Number: CORRESPONDENCE Fax Number: Correspondence will	DATA be sent to f provideo	14731196 (408)720-8383 <b>a the e-mail address first; if that is unsuccessful, it will be sent</b>
Application Number: CORRESPONDENCE Fax Number: <i>Correspondence will I using a fax number, if</i> Phone: Email: Correspondent Name:	DATA be sent to f provideo	14731196 (408)720-8383 <b>a the e-mail address first; if that is unsuccessful, it will be sent</b> <b>b; if that is unsuccessful, it will be sent via US Mail.</b> 408-720-8300 katie_lister@bstz.com BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Application Number: CORRESPONDENCE Fax Number: <i>Correspondence will I</i> <i>using a fax number, it</i> Phone: Email: Correspondent Name: Address Line 1:	DATA be sent to f provideo	(408)720-8383 <b>the e-mail address first; if that is unsuccessful, it will be sent</b> <b>if that is unsuccessful, it will be sent via US Mail.</b> 408-720-8300 katie_lister@bstz.com BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY
Application Number: CORRESPONDENCE Fax Number: Correspondence will I using a fax number, if Phone: Email: Correspondent Name: Address Line 1:	DATA be sent to f provideo	14731196 (408)720-8383 <b>a the e-mail address first; if that is unsuccessful, it will be sent</b> <b>b; if that is unsuccessful, it will be sent via US Mail.</b> 408-720-8300 katie_lister@bstz.com BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Application Number: CORRESPONDENCE Fax Number: Correspondence will I using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	DATA be sent to f provideo	(408)720-8383 <b>the e-mail address first; if that is unsuccessful, it will be sent</b> <b>if that is unsuccessful, it will be sent via US Mail.</b> 408-720-8300 katie_lister@bstz.com BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY
Application Number: CORRESPONDENCE Fax Number: <i>Correspondence will I</i> <i>using a fax number, it</i> Phone: Email: Correspondent Name: Address Line 1:	DATA be sent to f provideo : IUMBER:	(408)720-8383 <b>o the e-mail address first; if that is unsuccessful, it will be sent</b> <b>i; if that is unsuccessful, it will be sent via US Mail.</b> 408-720-8300 katie_lister@bstz.com BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY SUNNYVALE, CALIFORNIA 94085
Application Number: CORRESPONDENCE Fax Number: <i>Correspondence will I</i> <i>using a fax number, if</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET N	DATA be sent to f provideo : IUMBER:	(408)720-8383 the e-mail address first; if that is unsuccessful, it will be sent i; if that is unsuccessful, it will be sent via US Mail. 408-720-8300 katie_lister@bstz.com BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY SUNNYVALE, CALIFORNIA 94085 6655P227

## ASSIGNMENT OF U.S. PATENT APPLICATION

For good and valuable consideration, the receipt of which is hereby acknowledged, DOCOMO Innovations, Inc., a corporation of Delaware, (the "Assignor") having a place of business at 3240 Hillview Avenue, Palo Alto, California 94304, hereby sells, assigns, and transfers to NTT DOCOMO, Inc., a corporation of Japan, having a principal place of business at Sanno Park Tower, 11-1, Nagata-cho, 2-chome, Chiyoda-ku, Tokyo 100-6150, Japan, (the "Assignee"), its successors and assigns the entire right, title and interest throughout the world in the inventions, discoveries, improvements, or designs in filed United States Patent Application Number , entitled "TRANSCEIVERS AND METHODS FOR USE IN TRANSMITTING INFORMATION IN A MASSIVE MIMO SYSTEM," and in and to all patent applications and letters patents (including, but not limited to, utility patents, design patents, utility models, inventor certificates, and applications thereof) of every country for such inventions, discoveries, improvements, or designs including all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application.

The Assignor agrees that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications. continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives.

Assignor covenants with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possess by the undersigned.

The Assignor hereby requests the Commissioner for Patents and Trademarks to issue all patents granted for such inventions, discoveries, improvements, or designs to the Assignee, its successors and assigns.

Executed this <u>27</u> day of <u>May</u>, 2015

DOCOMO Innovations, Inc. A corporation of Delaware

Print Title: Chief Executive Officer

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway Sunnyvale, California 94085-4040 (408) 720-8300

Attny. Docket No. 06655.P227

## PATENT REEL: 035855 FRAME: 0560

**RECORDED: 06/17/2015**