PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ERIK BENGTSSON	03/23/2015
OVE EDFORS	03/24/2015

RECEIVING PARTY DATA

Name:	SONY CORPORATION	
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14700765

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ATTORNEY DOCKET NUMBER:	PS15 0205US1.1383	
NAME OF SUBMITTER:	JAMES C. EDWARDS	
SIGNATURE:	/jce/	
DATE SIGNED:	07/08/2015	

Total Attachments: 4

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PATENT 503382958 REEL: 036023 FRAME: 0489

ASSIGNMENT

WHEREAS, the undersigned inventors, hereinafter called the "Assignors", have invented a new and useful invention entitled:

OPTIMIZATION OF PHASE OFFSET AND AMPLITUDE BALANCE FOR MULTIPLE ANTENNAS OF A USER EQUIPMENT IN A MASSIVE MIMO SYSTEM

for which reference a full description was made in an application for Letters Patent of the United States filed on April 30, 2015, under U.S. Patent Application No. 14/700,765

WHEREAS, SONY CORPORATION, a foreign corporation having a principal office and place of business at, 1-7-1 Konan, Minato-ku, Tokyo 108-0075, Japan, hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said invention, the application above identified, and in, to and under Letters Patent which may be obtained for said invention, as hereinafter more fully set forth;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for valuable and legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the invention and the application herein above identified, and all Letters Patents that may issue for the said invention, and all divisions, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patents for the said invention may issue.

FURTHER, be it known that the Assignors have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignors do hereby covenant and agree, for themselves and their legal representatives, that they will assist the Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the invention herein identified, as hereinbefore set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the invention, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Letters Patents herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional papers and make all lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and further that they will communicate to Assignee, or to its successors, assigns,

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and legal representatives, any facts known respecting said invention, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

IN TESTIMONY WHEREOF, the undersigned has hereunto set his hand and seals on the date after his signature.

Erik Bengtsson, Assignor

Witness 1

2015-03-23

Date

Witness 2

IN TESTIMONY WHEREOF, the undersigned has hereunto set his hand and seals on the date after his signature.

Ove Ediors, Assignor

Witness 1

<u> 27/3 2015 </u>

Witness 2

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PATENT REEL: 036023 FRAME: 0493