

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT7507289

<b>SUBMISSION TYPE:</b>	RESUBMISSION
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>RESUBMIT DOCUMENT ID:</b>	507399775
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YOSHIHIRO NABE	03/24/2014
HIROSHI ASAMI	03/20/2014
YUJI TAKAOKA	04/02/2014
YOSHIMICHI HARADA	05/21/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SONY CORPORATION
<b>Street Address:</b>	1-7-1 KONAN
<b>Internal Address:</b>	MINATO-KU
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	108-0075
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17712889
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(303)863-0223
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	303-863-9700
<b>Email:</b>	sony@sheridanross.com
<b>Correspondent Name:</b>	SHERIDAN ROSS P.C.
<b>Address Line 1:</b>	1560 BROADWAY
<b>Address Line 2:</b>	SUITE 1200
<b>Address Line 4:</b>	DENVER, COLORADO 80202-5141
<b>ATTORNEY DOCKET NUMBER:</b>	6810-686-DIV-CON-5 (SC)
<b>NAME OF SUBMITTER:</b>	JOANNA MONTGOMERY/
<b>SIGNATURE:</b>	/Joanna Montgomery/
<b>DATE SIGNED:</b>	08/26/2022

**Total Attachments: 6**

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**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

August 25, 2022

PTAS

SHERIDAN ROSS P.C.  
1560 BROADWAY  
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DENVER, CO 80202-5141



507399775

United States Patent and Trademark Office  
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ANDREA FREEMAN  
ASSIGNMENT RECORDATION BRANCH  
PUBLIC RECORDS DIVISION

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7446702

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YOSHIHIRO NABE	03/24/2014
HIROSHI ASAMI	03/20/2014
YUJI TAKAOKA	04/02/2014
YOSHIMICHI HARADA	05/21/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SONY CORPORATION
<b>Street Address:</b>	1-7-1 KONAN
<b>Internal Address:</b>	MINATO-KU
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	108-0075
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	17712889
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(303)863-0223
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	303-863-9700
<b>Email:</b>	sony@sheridanross.com
<b>Correspondent Name:</b>	SHERIDAN ROSS P.C.
<b>Address Line 1:</b>	1560 BROADWAY
<b>Address Line 2:</b>	SUITE 1200
<b>Address Line 4:</b>	DENVER, COLORADO 80202-5141
<b>ATTORNEY DOCKET NUMBER:</b>	6810-686-DIV-CON-5
<b>NAME OF SUBMITTER:</b>	JOANNA MONTGOMERY
<b>SIGNATURE:</b>	/Joanna Montgomery/
<b>DATE SIGNED:</b>	07/22/2022
<b>Total Attachments: 4</b>	

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

<b>Title of Invention</b>	SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to: <input type="checkbox"/> The attached application, or</p> <p style="margin-left: 150px;"><input checked="" type="checkbox"/> United States application or PCT international application number <u>14/199,124</u></p> <p style="margin-left: 150px;">filed on <u>March 6, 2014</u></p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>WHEREAS, <u>SONY CORPORATION</u>, with offices at <u>1-7-1 KONAN, MINATO-KU, TOKYO, 108-0075, JAPAN</u> (hereinafter referred to as ASSIGNEE), is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;</p> <p>NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;</p> <p>And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;</p> <p>And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense;</p> <p>And I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify in to the same in any interference or litigation related thereto;</p> <p>And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p>	
<p>LEGAL NAME OF INVENTOR</p> <p>Inventor: <u>Yoshihiro Nabe</u> Date: <u>March 24, 2014</u></p> <p>Signature: <u>Yoshihiro Nabe</u></p>	

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

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<p>LEGAL NAME OF INVENTOR</p> <p>Inventor: <u>Hiroshi Asami</u> Date: <u>March 20, 2014</u></p> <p>Signature: <u>H. Asami</u></p>	

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<p>LEGAL NAME OF INVENTOR</p> <p>Inventor: <u>Yuji Takaoka</u> Date: <u>April 2, 2014</u></p> <p>Signature: <u>[Handwritten Signature]</u></p>	

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Title of Invention	SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p style="margin-left: 40px;"> <input type="checkbox"/> The attached application, or  <input checked="" type="checkbox"/> United States application or PCT international application number <u>14/199,124</u>                  filed on <u>March 6, 2014</u> </p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>WHEREAS, <u>SONY CORPORATION</u>, with offices at <u>1-7-1 KONAN, MINATO-KU, TOKYO, 108-0075, JAPAN</u> (hereinafter referred to as ASSIGNEE), is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;</p> <p>NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;</p> <p>And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;</p> <p>And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for any aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense;</p> <p>And I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;</p> <p>And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p>	
<p>LEGAL NAME OF INVENTOR</p> <p>Inventor: <u>Yoshimichi Harada</u> Date: <u>May 21, 2014</u></p> <p>Signature: <u>Yoshimichi Harada</u></p>	

**PATENT**