PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| TAKASHI KAWAGUCHI | 08/07/2012 |

RECEIVING PARTY DATA

| Name: | SONY CORPORATION |
|-----------------|------------------------|
| Street Address: | 1-7-1 KONAN, MINATO-KU |
| City: | TOKYO |
| State/Country: | JAPAN |
| Postal Code: | 108-0075 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15689921 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | S1459.72017US05 |
|-------------------------|--------------------|
| NAME OF SUBMITTER: | JESSICA O. VALLI |
| SIGNATURE: | /Jessica O. Valli/ |
| DATE SIGNED: | 09/05/2017 |

Total Attachments: 1

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PATENT REEL: 043490 FRAME: 0889

Attorney Docket No. 80001-5161 SONY Ref. No.: SP334243US00

ASSIGNMENT

WHEREAS, I, as below named inventors, residing at the addresses stated next to our names, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in SOLID STATE IMAGING DEVICE, METHOD OF CONTROLLING SOLID STATE IMAGING DEVICE, AND PROGRAM

FOR CONTROLLING SOLID STATE IMAGING DEVICE

for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address;

AND WHEREAS, SONY CORPORATION, a Japanese corporation, with offices at 1-7-1 Konan, Minato-ku, Tokyo, Japan (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;

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, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in the 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 the said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;

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;

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 the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

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;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with

| the spaces that follow: Serial Number: 13/598, 986 | Filing Date: August 30, 2012 |
|--|---|
| This assignment executed on the dates indicated below, | |
| TAKASHI KAWAGUCHI | |
| Name of first or sole inventor FUKUOKA, JAPAN | Execution date of U.S. Patent Application |
| Residence of First or sole inventor Takachi Kawaguchi Signature of first or sole inventor | Auguse 7 20/2 Date of this assignment |
| Name of second inventor | |
| Residence of second inventor | Execution date of U.S. Patent Application |
| Signature of second inventor | Date of this assignment |
| Name of third inventor | Execution date of U.S. Patent Application |
| Residence of third inventor | |
| Signature of third inventor | Date of this assignment |

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PATENT REEL: 028918 FRAME: 0534

PATENT

RECORDED: 09/07/2012

REEL: 043490 FRAME: 0890

RECORDED: 09/05/2017