06-28-2005 R ΞT FORM PTO-1595 U.S. DEPARTMENT OF COMMERCE 1/31/92 6-24-05 103029828 Patent and Trademark Office To the Honorable Commissioner of Patents and Trademarks: Please Record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): Name of conveying party(ies) Name: Sony Corporation YOSHINORI MURAMATSU NORIYUKI FUKUSHIMIA Internal Address: YOSHIKAZU NITTA YUKIHIRO YASUI Additional name(s) of conveying party(ies) attached? Street Address: 7-35, Kitashinagawa 6-chaิme ☐ Yes Shinagawa-ku, Tokyo, Japan 3. Nature of conveyance: State: ☐ Merger Security Agreement 

Change of Name Additional Name(s) & Address(es) attached ☐ Yes ☒ No П Execution Date 5/25/05, 6/2/05, 6/25/05 & 5/25/05 4. Application (number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: Patent Application No.(s) B: Patent No.(s) U.S. Serial No. 11/098,986 filed April 5, 2005 Attorney Docket No. 09792909-6103 Additional numbers attached? ☐ Yes ☒ No 6. Total number of applications and patents involved 5. Name and address of party to whom correspondence concerning document should be 7. Total Fee (37 CFR 3.41 . . . . . . . . . . . \$ 40.00 mailed: ☐ Enclosed SONNENSCHEIN NATH & ROSENTHAL LLP Authorized to be charged to applicants' attorneys' American Express account. Form 2038 is P.O. Box #061080 attached for that purpose. **Wacker Drive Station Sears Tower** Any deficiency is authorized to be charged to Chicago, IL 60606-1080 deposit account or any additional fees Customer ID No. 26263 8. Deposit Account Number: 19.3140 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE

9. Statement and signature:

To the best of my knowledge and belief the foregoing information is true and correct and any attached copy is

a true copy of the original document.

David R. Metzger
Name of Person Signing

Signature Signature

June 21, 2005

Date

Total number of pages 3

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PATENT REEL: 016714 FRAME: 0862

Docket Number	09792909-6103
Docket Number	05/52505-0103

## ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, 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 AD CONVERSION METHOD, AD CONVERTER, SEMICONDUCTOR DEVISE FOR DETECTING DISTRIBUTION OF PHYSICAL QUANTITIES, AND ELECTRONIC APPARATUS 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 7-35 Kitashinagawa 6-Chome. Shinagawa-Ku. Tokyo, Japan (hereinafter referenced 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 this assignment and sale. And I hereby authorize and request my attorney(s) of record in this application to insert the serial number and filing date of this application in the spaces that follow: Serial Number: 11/098,986, Filing Date: April 5,2005. This assignment executed on the dates indicated below. Yoshinori MURAMATSU Name of first or sole inventor Execution date of U.S. Patent Application Kanagawa, Japan Residence of first or sole inventor May 25, 2005

Signature of first or sole inventor

PATENT REEL: 016714 FRAME: 0863

Noriyuki FUKUSHIMA	
Name of second inventor	Execution date of U.S. Patent Application
Kanagawa, Japan	
Residence of second inventor Moriyuki Juhushim	Jun. 2, 2005
Signature of second inventor	Date of this assignment
Yoshikazu NITTA	
Name of third inventor	Execution date of U.S. Patent Application
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Residence of third inventor  Yoshikazu Nitta	May 25, 2005
Signature of third inventor	Date of this assignment
Yukihiro YASUI	
Name of fourth inventor	Execution date of U.S. Patent Application
Kanagawa, Japan	
Residence of fourth inventor	7. 7.
Yukihira Yasui	may 25, 2005
Signature of fourth inventor	Date of this assignment
Name of fifth inventor	Execution date of U.S. Patent Application
Residence of fifth inventor	
Signature of fifth inventor	Data of this assignment

PATENT
RECORDED: 06/24/2005 REEL: 016714 FRAME: 0864