

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SONY CORPORATION	07/08/2016
RECEIVING PARTY DATA	
Name:	SONY SEMICONDUCTOR SOLUTIONS CORPORATION
Street Address:	4-14-1 ASAHICHO, ATSUGI-SHI
City:	KANAGAWA
State/Country:	JAPAN
Postal Code:	243-0014
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	15424650
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NAME OF SUBMITTER:	JESSICA O. VALLI
SIGNATURE:	/Jessica O. Valli/
DATE SIGNED:	01/29/2018
Total Attachments: 3	
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ASSIGNMENT

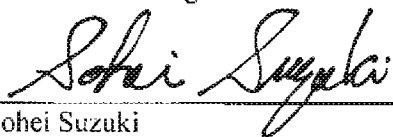
For good and valuable consideration, the receipt of which is hereby acknowledged, Sony Corporation ("ASSIGNOR"), a company having offices in Tokyo, Japan, has sold, assigned, and transferred and does hereby sell, assign, and transfer to Sony Semiconductor Solutions Corporation ("ASSIGNEE"), a company having offices at 4-14-1 Asahi-cho, Atsugi-shi, Kanagawa, 243-0014 Japan, for itself and its successors, transferees, and assignees, the following:

The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the patent applications as set forth in the enclosed APPENDIX ("APPLICATIONS"), and, the entire worldwide right, title, and interest in and to: (a) each of the APPLICATIONS; (b) all applications claiming priority from each of the APPLICATIONS; (c) all utility, divisional, continuation, substitute, renewal, and reissue applications for each of the APPLICATIONS that have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b) and (c) above; and (d) all right of priority in each of the APPLICATIONS, together with all rights to recover damages for infringement of provisional rights.

ASSIGNOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

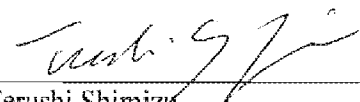
ASSIGNOR represents that ASSIGNOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the ASSIGNOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

This Assignment is executed on the date(s) indicated below.



Sohei Suzuki
Senior General Manager, Intellectual Property Division
Authorized Officer, Sony Corporation
(ASSIGNOR)

Date: July 8, 2016



Terushi Shimizu
Representative Director, President
Authorized Officer, Sony Semiconductor Solutions Corporation
(ASSIGNEE)

Date July 20, 2016

APPENDIX

Attorney Reference #	US APPL. SERIAL #	PCT APPL. #	FILING DATE	Title
880001-9001-US00	62/216742		9/10/2015	METHOD AND APPARATUS FOR WIRELESS COMMUNICATION WITH EFFICIENT FRAME SYNCHRONIZATION
880001-9003-US00	14/928524		10/30/2015	CHARGE INJECTION NOISE REDUCTION IN SAMPLE-AND-HOLD CIRCUIT
880001-9004-US00	14/928507		10/30/2015	STATE MACHINE CONTROLLED MOS LINEAR RESISTOR
880001-9005-US00	14/927086		10/29/2015	ROW AND COLUMN NOISE CORRECTION WITH DEFECTIVE PIXEL PROCESSING
880001-9006-US00	14/928486		10/30/2015	PREDICTIVE SIGMA-DELTA ADC FILTER
880001-6219-US00	14/928536		10/30/2015	ADAPTIVE GAIN CONTROL USING SAMPLE-AND-HOLD CIRCUIT FOR ANALOG CDS
880001-6218-US00	14/928551		10/30/2015	SAMPLE-AND-HOLD CIRCUIT WITH BLACK SUN CONTROL
880001-6207-US00	14/857746		9/17/2015	DUAL SAMPLE-AND-HOLD CIRCUIT WITH RESISTIVE GAIN
880001-6168-US00	14/877158		10/7/2015	SAMPLE-AND-HOLD CIRCUIT HAVING ERROR COMPENSATION CIRCUIT PORTION
880001-6166-US00	14/885047		10/16/2015	FAST CURRENT MODE SIGMA-DELTA ANALOG-TO-DIGITAL CONVERTER
880001-6167-US00	14/877141		10/7/2015	LATCH BASED PARALLEL-TO-SERIAL READOUT CIRCUITRY AND IMAGE SENSOR UTILIZING THE CIRCUITRY
880001-6169-US00	14/857377		9/17/2015	POWER REDUCTION FOR IMAGE SENSOR WITH RAW IMAGE SCALER
880001-6028-US00	14/656958		3/13/2015	STORAGE DEVICE, INFORMATION PROCESSING DEVICE, DATA ACCESS METHOD AND PROGRAM
880001-6020-US01	15/137655		4/25/2016	COMMUNICATION DEVICE, COMMUNICATION SYSTEM, AND COMMUNICATION METHOD
880001-6020-US00	14/633385		2/27/2015	COMMUNICATION DEVICE, COMMUNICATION SYSTEM, AND COMMUNICATION METHOD
880001-6021-US00	14/633397		2/27/2015	CONNECTOR SYSTEM, COMMUNICATION DEVICE, AND COMMUNICATION SYSTEM
880001-6027-US01	15/096460		4/12/2016	COMMUNICATION DEVICE AND METHOD OF DETECTING A COMMUNICATION PARTNER
880001-6027-US00	14/638644		3/4/2015	COMMUNICATION DEVICE AND METHOD OF DETECTING A COMMUNICATION PARTNER
880001-5887-US00	14/508588		10/7/2014	SEMICONDUCTOR INTEGRATED CIRCUIT
880001-5997-US00	14/608264		1/29/2015	OSCILLATOR CIRCUIT AND FREQUENCY SYNTHESIZER
880001-5985-US00	14/553398		11/25/2014	SEMICONDUCTOR DEVICE AND METHOD OF WRITING DATA
880001-6003-US00	14/608279		1/29/2015	SEMICONDUCTOR DEVICE AND METHOD OF CONTROLLING THE SAME
880001-6016-US00	14/626202		2/19/2015	ELECTRONIC CIRCUIT, METHOD OF CONTROLLING ELECTRONIC CIRCUIT, AND ELECTRONIC APPARATUS
880001-5876-US00	14/483669		9/11/2014	MEMORY DEVICE, WRITING METHOD, AND READING METHOD
880001-5902-US00	14/522041		10/23/2014	SIMULATION METHOD, SIMULATION PROGRAM, PROCESSING APPARATUS, SIMULATOR, AND DESIGN METHOD
880001-5988-US00	14/590014		1/6/2015	SWITCH DEVICE AND STORAGE UNIT
880001-5808-US01	14/831328		8/20/2015	SOLID-STATE IMAGING DEVICE WITH CHARGE HOLDING SECTION BETWEEN TRENCHED TRANSFER GATE SECTIONS, MANUFACTURING METHOD OF SAME, AND ELECTRONIC APPARATUS
880001-5995-US00	14/597639		1/15/2015	FREQUENCY DIVIDING CIRCUIT AND PHASE SYNCHRONIZATION CIRCUIT
880001-5904-US00	14/522065		10/23/2014	SIMULATION, METHOD, SIMULATION PROGRAM, PROCESS CONTROL SYSTEM, SIMULATOR, PROCESS DESIGN METHOD, AND MASK DESIGN METHOD
880001-5813-US01	14/950715		11/24/2015	SOLID-STATE IMAGING DEVICE AND METHOD OF OPERATING THE SAME, AND ELECTRONIC APPARATUS AND METHOD OF OPERATING THE SAME

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Sony Corporation to Sony Semiconductor Solutions Corporation

APPENDIX

880001-5732-US00	14/255464		4/17/2014	IMAGE PROCESSING APPARATUS, IMAGE PROCESSING METHOD, AND PROGRAM
880001-6245-US00	14/890138	PCT/JP2014/062296	5/8/2014	IMAGE PROCESSING DEVICE AND IMAGE PROCESSING METHOD
880001-5998-US00	14/611820		2/2/2015	SIGNAL GENERATION CIRCUIT AND ELECTRONIC APPARATUS
880001-5799-US00	14/332543		7/16/2014	SOLID-STATE IMAGING DEVICE, DRIVING METHOD THEREOF AND ELECTRONIC APPARATUS
880001-5915-US00	14/539293		11/12/2014	CLOCK GENERATION CIRCUIT
880001-5918-US00	14/541712		11/14/2014	ANALOG-TO-DIGITAL CONVERSION DEVICE
880001-5723-US00	14/230624		3/31/2014	EXPOSURE CONTROL APPARATUS, IMAGE CAPTURING APPARATUS AND METHOD OF CONTROLLING EXPOSURE
880001-5647-US00	14/165738		1/28/2014	COMPARATOR UNIT, DISPLAY, AND METHOD OF DRIVING DISPLAY
880001-6171-US00	14/650448	PCT/JP2013/081380	11/21/2013	MEMORY DEVICE AND METHOD OF MANUFACTURING MEMORY DEVICE
880001-5976-US01	15/014704		2/3/2016	IMAGE SENSOR AND CONTROL METHOD FOR IMAGE SENSOR
880001-5341-US00	13/763205		2/8/2013	SOLID-STATE IMAGE PICKUP APPARATUS AND CAMERA SYSTEM
880001-5730-US00	14/278448		5/15/2014	INFORMATION PROCESSING APPARATUS, INFORMATION PROCESSING METHOD, AND PROGRAM
880001-5937-US00	14/379895	PCT/JP2013/051720	1/28/2013	IMAGE SENSOR AND ELECTRONIC DEVICE
880001-5261-US00	14/348727	PCT/JP2012/076351	10/11/2012	SOLID-STATE IMAGE SENSOR AND CAMERA SYSTEM
880001-5031-US00	13/981500	PCT/JP2012/001145	2/21/2012	SOLID-STATE IMAGING DEVICE AND CAMERA SYSTEM
880001-5096-US01	14/509341		10/8/2014	IMAGING DEVICE, DRIVING METHOD AND ELECTRONIC APPARATUS WITH ELECTRIC POTENTIAL APPLIED OUTSIDE EXPOSURE PERIOD
880001-4919-US00	13/285512		10/31/2011	OPTICAL DEVICE AND ELECTRONIC APPARATUS
880001-4819-US01	14/586028		12/30/2014	SOLID-STATE IMAGING DEVICE AND CAMERA SYSTEM
880001-4663-US04	14/971666		12/16/2015	IMAGING DEVICE, MANUFACTURING METHOD THEREOF, AND CAMERA WITH ALTERNATIVELY ARRANGED PIXEL COMBINATIONS
880001-4024-US01	12/923584		9/29/2010	METHOD OF PRODUCING SEMICONDUCTOR DEVICE, SOLID-STATE IMAGING DEVICE, METHOD OF PRODUCING ELECTRIC APPARATUS, AND ELECTRIC APPARATUS
880001-3988-US02	13/289086		11/4/2011	SOLID-STATE IMAGING DEVICE AND MANUFACTURING METHOD THEREOF
880001-6195-US02	15/074511		3/18/2016	SOLID-STATE IMAGING DEVICE
880001-6188-US06	14/259494		4/23/2014	SOLID-STATE IMAGE PICKUP DEVICE AND METHOD FOR PRODUCING THE SAME
880001-6185-US02	12/335338		12/15/2008	SOLID-STATE IMAGING DEVICE AND METHOD FOR FABRICATING SAME

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