Form PTQ-1595 (Rev. 02-11) OMB No. 0651-0027 (exp. 03/31/2015)	U.S. DEPARTMENT OF COMMERC United States Patent and Trademark Offic	
RECORDATION FOR PATENTS		
To the Director of the U.S. Patent and Trademark Office: Please		
1. Name of conveying party(les):	2. Name and address of receiving party(lee)	
Gen Ichimura (05/14/2009), Hidekazu Kikuchi (05/18/2009), and Yasuhisa Nakajima (05/21/2009)	Name: Sony Corporation Internal Address:	
Additional name(s) of conveying party(les) attached? Yes X No	Street Address:	
3. Nature of conveyance/Execution Date(s): Execution Date(s): In parentheses after inventor name X Assignment	1-7-1 Konan, Minato-ku Tokyo 108-0075 JAPAN City: State: Country: Additional name(s) & address(es) attached? This document is being filed together with a new application.	
A. Patent Application No.(s) 13/569,461 Additional numbers attached	B. Patent No.(s)	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Name: Andrew T. Zidel LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00	
Internal Address: Atty, Dkt.; SONYJP 3.0-1758 CON II CON Street Address: 600 South Avenue West	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)	
City: Westfield	8. Payment Information	
State: NJ Zip: 07090		
Phone Number: 908-654-5000		
Fax Number: 908-654-7866	Deposit Account Number 12-1095	
Email Address: ataylor@ldlkm.com	Authorized User Name Andrew T. Zidel	
9. Signature: Signature	November 29, 2012	
Andrew T. Zidel - 45,256	Total combined from the first and affect and	
Name of Person Signing	sheet, attachments, and documents: 3	

2970642

PATENT REEL: 029424 FRAME: 0630 LDLKM

Docket No.:

Sony Ref. No.: S08P1813US00

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:

INTERFACE CIRCUIT

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 WHERBAS, <u>SONY CORPORATION</u>, a Japanese corporation with offices at 1-7-1 Kenen, <u>Misato-ku</u>, <u>Tokyo</u>, <u>Japan</u> (hereinafter referenced as ASSIGNER) 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 Doller (\$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, my 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 forcign 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 filling 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 coverant 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	application number
and filing date of this application in the spaces that follow:	Application Number,	; Filing Date:	

This assignment executed on the dates indicated below.

PATENT REEL: 029424 FRAME: 0631

Dacket No.:

Sony Ref. No.: S08P1813US00

Gen ICHIMURA	
Name of First or Sole Inventor	Execution Date of U.S. Patent Application
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Cyan Ochimuro.	May 14, 2009
Signature of First or Sole Inventor	Date of this Assignment
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Hesidence of Second Joint Inventor Hrolekow Kikuchi	May 18, 2009
Signature of Second Joint Inventor	Date of this Assignment
Yaşubisa NAKAJIMA	
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Residence of Third Joint Inventor	Α.
Signature of Third Joint Inventor	21 May, 2009
Signature of Third Joint Investor	21 May, 2009 Date of this Assignment
Name of Fourth Joint Inventor	Y
Name of Lond it again to active	Execution Date of U.S. Patent Application
Residence of Fourth Joint Inventor	
Signature of Fourth Joint Inventor	Date of this Assignment
Name of Fifth Joint Inventor	Execution Date of U.S. Patent Application
Residence of Fifth Joint Inventor	
Signature of Fifth Joint Inventor	Date of this Assignment

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S08P1513US00_20090327_Assignment,DOC

PATENT REEL: 029424 FRAME: 0632

RECORDED: 11/29/2012