

U.S. PTO

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(Rev. 06/93) **PATENTS ONLY**  
OMB No. 0651-0011 (Exp. 04/94)

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ET

U.S. Department of Commerce  
Patent and Trademark Office  
Attorney Docket No.: SONY-35400Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Robert B. Haig  
Patrick T. Chuang  
Chih-Chaing Tseng  
Kookhwan Kwon

— Additional name(s) of conveying party(ies) attached.

## 2. Name and address of receiving party(ies):

SONY CORPORATION  
1-7-1 Konan, Minato-ku,  
Tokyo, 108-0075 JAPANSONY ELECTRONICS INC.  
1 Sony Drive  
Park Ridge, New Jersey 07656-8003

— Additional name(s) and address(es) attached.

## 3. Nature of conveyance:

☒ Assignment      — Merger  
— Security Agreement      — Change of Name  
— Other: \_\_\_\_\_Execution Date: March 18, 2008

## 4. Application number(s) or patent number(s):

☒ This document is being filed together with a new application, the execution date of the application is: March 18, 2008  
— Patent Application Serial No.(s): filed on.  
— Patent No.(s):  
— Additional numbers attached.

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Jonathan O. Owens  
HAVERSTOCK & OWENS LLP  
162 North Wolfe Road  
Sunnyvale, CA 940866. Total number of applications and patents involved: 1.

## 7. Total fee(s) [37 CFR §§ 1.21(h) and 3.41]:

☒ Check in the amount of \$1,170.00 (\$1,130.00 is for the patent application filing fee plus \$40.00 for the assignment recordation fee) is enclosed

## 8. Authorization to Charge Additional Fees:

☒ The Commissioner is hereby authorized to charge any additional fees or credit any overpayment associated with this communication and which may be required under 37 CFR §§ 1.21(h) and 3.41 to Deposit Account No. 08-1275.

## 9. 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.

Dated: March 24, 2008

Signature:

Name: Jonathan O. OwensReg. No.: 37,902Total number of pages including cover sheet, attachments, and document: 3

03/26/2008 HNGUYEN1 00000035 12079100

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PATENT  
REEL: 020756 FRAME: 0148

PATENT  
Attorney Docket No.: SONY-35400

### ASSIGNMENT

WHEREAS, WE, Robert B. Haig, Patrick T. Chuang, Chih-Chiang Tseng, and Kookhawn Kwon, hereinafter referred to as "ASSIGNORS", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: **AN EFFICIENT METHOD FOR IMPLEMENTING PROGRAMMABLE IMPEDANCE OUTPUT DRIVERS AND PROGRAMMABLE INPUT ON DIE TERMINATION ON A BI-DIRECTIONAL DATA BUS**

Date of execution of application: \_\_\_\_\_ Filing Date: \_\_\_\_\_ Serial No.: \_\_\_\_\_

WHEREAS, SONY CORPORATION, a Japanese corporation, 1-7-1 Konan, Minato-ku, Tokyo, 108-0075 JAPAN and SONY ELECTRONICS INC., a corporation of the State of Delaware, 1 Sony Drive, Park Ridge, NJ 07656-8003, hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged, Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee, and Assignee's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this assignment and transfer not been made, to the full end and term of any Letters Patent.

Assignors further agree that they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have hereunto signed their names to this assignment on the dates indicated below.

Robert B. Haig  
Robert B. Haig

3/16/08  
Date

\_\_\_\_\_  
Patrick T. Chuang

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chih-Chiang Tseng

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kookhwan Kwon

\_\_\_\_\_  
Date

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_, a notary public, personally appeared Robert B. Haig, Patrick T. Chuang, Chih-Chiang Tseng, and Kookhawn Kwon, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

\_\_\_\_\_  
Signature of Notary Public

## ASSIGNMENT

WHEREAS, WE, Robert B. Haig, Patrick T. Chuang, Chih-Chiang Tseng, and Kookhawn Kwon hereinafter referred to as "ASSIGNORS", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: **AN EFFICIENT METHOD FOR IMPLEMENTING PROGRAMMABLE IMPEDANCE OUTPUT DRIVERS AND PROGRAMMABLE INPUT ON DIE TERMINATION ON A BI-DIRECTIONAL DATA BUS**

Date of execution of application: \_\_\_\_\_ Filing Date: \_\_\_\_\_ Serial No.: \_\_\_\_\_

WHEREAS, SONY CORPORATION, a Japanese corporation, 1-7-1 Konan, Minato-ku, Tokyo, 108-0075 JAPAN and SONY ELECTRONICS INC., a corporation of the State of Delaware, 1 Sony Drive, Park Ridge, NJ 07656-8003, hereinafter referred to as hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged, Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee, and Assignee's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this assignment and transfer not been made, to the full end and term of any Letters Patent.

Assignors further agree that they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have hereunto signed their names to this assignment on the dates indicated below.

Robert B. Haig

Date

Patrick T. Chuang  
Patrick T. Chuang

Mar 18/2008  
Date

Chih-Chiang Tseng  
Chih-Chiang Tseng

3/18/2008  
Date

Kookhawn Kwon  
Kookhawn Kwon

3/18/2008  
Date

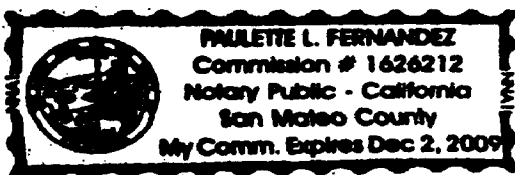
STATE OF California  
COUNTY OF Santa Clara

On 3/18/08 before me, Paulette L. Fernandez, a notary public, personally appeared Robert B. Haig, Patrick T. Chuang, Chih-Chiang Tseng, and Kookhawn Kwon, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

SEAL



Paulette L. Fernandez  
Signature of Notary Public

PATENT

RECORDED: 03/24/2008

REEL: 020756 FRAME: 0150