NOV 0.2 1006 W PTO-1595 (Rev. 08/05)
OMB No. 0651-0027 (exp. 6/30/2008)

11-07-2006



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U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

<ol> <li>Name of conveying party(ies):</li> </ol>	2. Name and address of receiving party(ies)
Yosuke Ueno	
	Name: Sony Corporation
	Internal Address:
Additional name(s) of conveying party(ies) attached? Yes X No	Street Address:
3. Nature of conveyance/Execution Date(s):	7-35 Kitashinagawa 6-Chome
Execution Date(s): September 15, 2006	Shinagawa-Ku, Tokyo
	_   141-0001   JAPAN
x Assignment Merger Change of Name	JAFAN
Security Agreement Joint Research Agreement	City:
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	
	Country: Zip:
Other	Additional name(s) & address(es) Yes X
	7
4. Application or patent number(s):	This document is being filed together with a new applicati
A. Patent Application No.(s)	B. Patent No.(s)
11/482,028	·
	·
Additional numbers attached	d? Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Ronald P. Kananen	
RADER, FISHMAN & GRAUER PLLC	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.: SON-3591	Authorized to be charged by credit card
Street Address: 1233 20th Street, N.W.	X Authorized to be charged to deposit account
Suite 501	
	Enclosed
	None required (government interest not affecti
City: Washington	8. Payment Information
State: DC Zip: 20036	8. Payment Information a. Credit Card Last 4 Numbers
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750	
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750           Fax Number:         (202) 955-3751	a. Credit Card Last 4 Numbers
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750	a. Credit Card Last 4 Numbers Expiration Date
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750           Fax Number:         (202) 955-3751	a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 18-0013
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750           Fax Number:         (202) 955-3751           Email Address:         rpk@raderfishman.com	a. Credit Card Last 4 Numbers Expiration Date  b. Deposit Account Number 18-0013 Authorized User Name Ronald P. Kananen
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750           Fax Number:         (202) 955-3751           Email Address:         rpk@raderfishman.com           Signature:         . Signature:	a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 18-0013 Authorized User Name Ronald P. Kananen  November 2, 2006
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750           Fax Number:         (202) 955-3751           Email Address:         rpk@raderfishman.com           J. Signature:         Signature	a. Credit Card Last 4 Numbers Expiration Date  b. Deposit Account Number 18-0013 Authorized User Name Ronald P. Kananen  November 2, 2006 Date
State:         DC         Zip:         20036           Phone Number:         (202) 955-3750           Fax Number:         (202) 955-3751           Email Address:         rpk@raderfishman.com           Signature:         . Signature:	a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 18-0013 Authorized User Name Ronald P. Kananen  November 2, 2006

**PATENT** 

REEL: 018492 FRAME: 0337

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**ASSIGNMENT** 

Docket Number: SON-3591

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 VOLTAGE-CONTROLLED OSCILLATOR CIRCUIT AND PLL 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 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: 11/482,028 Filing Date: July 7, 2006

This assignment executed on the dates indicated below.

Yosuke UENO	
Name of first or sole inventor	Execution date of U.S. Patent Application
Kanagawa, Japan	
Residence of first or sole inventor  Thusafe Meno	September 15, 2006
Signature of first or sole inventor	Date of this assignment

PATENT REEL: 018492 FRAME: 0338

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PTO/SB/17 (07-06) Approved for use through 01/31/2007. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Inder the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number Complete if Known Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). 11/482,028-Conf. #4943 Application Number **FEE TRANSMITTAL** July 7, 2006 Filing Date Yosuke Ueno First Named Inventor For FY 2005 **Examiner Name** Not Yet Assigned Applicant claims small entity status. See 37 CFR 1.27 2817 Art Unit TOTAL AMOUNT OF PAYMENT SON-3591 170.00 Attorney Docket No. METHOD OF PAYMENT (check all that apply) Credit Card Check Money Order None Other (please identify): x Deposit Account Deposit Account Number: 18-0013 Deposit Account Name: Rader, Fishman & Grauer PLLC For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) x | Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee Charge any additional fee(s) or underpayment of Credit any overpayments fee(s) under 37 CFR 1.16 and 1.17 **FEE CALCULATION** 1. BASIC FILING, SEARCH, AND EXAMINATION FEES **FILING FEES** SEARCH FEES **EXAMINATION FEES** Small Entity **Small Entity** Small Entity **Application Type** Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fees Paid (\$) Fee (\$) Utility 300 150 500 250 200 100 Design 200 100 100 50 130 65 Plant 200 100 300 150 160 80 Reissue 300 150 500 250 600 300 Provisional 200 100 0 0 2. EXCESS CLAIM FEES Small Entity Fee Description Fee (\$) Fee (\$) Each claim over 20 (including Reissues) 50 25 Each independent claim over 3 (including Reissues) 200 100 Multiple dependent claims 360 180 **Total Claims** Extra Claims Fee (\$) Fee Paid (\$) Multiple Dependent Claims Fee Paid (\$) Fee (\$) HP = highest number of total claims paid for, if greater than 20. Indep. Claims x HP = highest number of independent claims paid for, if greater than 3. 3. APPLICATION SIZE FEE If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). **Total Sheets** Number of each additional 50 or fraction thereof Extra Sheets Fee (\$) Fee Paid (\$) - 100 **≃** /50 \_\_\_\_ (round up to a whole number) x 4. OTHER FEE(S) Fees Paid (\$) Non-English Specification, \$130 fee (no small entity discount) Other (e.g., late filing surcharge): 8021 Assignment Recordation Cover Sheet 40.00 SUBMITTED BY Registration No. Signature 24,104 Telephone (202) 955-3750 (Attorney/Agent) Name (Print/Type) Renald P. Kananen

> **PATENT** REEL: 018492 FRAME: 0339

November 2, 2006

Date

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SHENZE HAM	Ur Ur

Name (Print/Type)

**RECORDED: 11/02/2006** 

Renald P. Kananen

Approved for use through 01/31/2007. OMB 0651-0032

PTO/SB/17 (07-06) U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE u.S. DEPARTMENT OF COMMERCE der the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). 11/482,028-Conf. #4943 Application Number FEE TRANSMITTAL July 7, 2006 Filing Date First Named Inventor Yosuke Ueno For FY 2005 **Examiner Name** Not Yet Assigned Applicant claims small entity status. See 37 CFR 1.27 2817 Art Unit TOTAL AMOUNT OF PAYMENT SON-3591 (\$) 170.00 Attorney Docket No. METHOD OF PAYMENT (check all that apply) Check Credit Card Money Order None Other (please identify): x Deposit Account Deposit Account Number: 18-0013 Deposit Account Name: Rader, Fishman & Grauer PLLC For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee Charge any additional fee(s) or underpayment of x | Credit any overpayments fee(s) under 37 CFR 1.16 and 1.17 **FEE CALCULATION** 1. BASIC FILING, SEARCH, AND EXAMINATION FEES FILING FEES SEARCH FEES **EXAMINATION FEES** Small Entity Small Entity Small Entity **Application Type** Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fees Paid (\$) Fee (\$) Utility 300 150 500 250 200 100 Design 200 100 100 50 130 65 Plant 200 100 300 150 160 80 Reissue 300 150 500 250 600 300 Provisional 200 100 0 0 n 0 2. EXCESS CLAIM FEES **Small Entity** Fee (\$) Fee (\$) Fee Description Each claim over 20 (including Reissues) 50 25 Each independent claim over 3 (including Reissues) 200 100 Multiple dependent claims 360 180 **Total Claims** Extra Claims Fee Paid (\$) **Multiple Dependent Claims** Fee Paid (\$) Fee (\$) HP = highest number of total claims paid for, if greater than 20. Indep. Claims Extra Claims Fee Paid (\$) Fee (\$) HP = highest number of independent claims paid for, if greater than 3. 3. APPLICATION SIZE FEE If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). **Total Sheets** Extra Sheets Number of each additional 50 or fraction thereof Fee (\$) Fee Paid (\$) - 100 = \_\_ (round up to a whole number) x 4. OTHER FEE(S) Fees Paid (\$) Non-English Specification, \$130 fee (no small entity discount) Other (e.g., late filing surcharge): 8021 Assignment Recordation Cover Sheet 40.00 SUBMITTED BY Registration No. Signature 24,104 Telephone (202) 955-3750 (Attomey/Agent)

**PATENT** 

November 2, 2006

REEL: 018492 FRAME: 0340

Date