

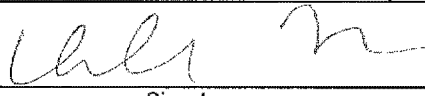
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Form PTO-1595 (Rev. 01-09)
OMB No. 0651-0027 (exp. 02/28/2009)

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

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies): Yuhichiroh Murakami (11/17/2011), Shige Furuta (11/17/2011), Yasushi Sasaki (11/17/2011), Makoto Yokoyama (11/17/2011), and Additional name(s) of conveying party(ies) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Name and address of receiving party(ies) Name: <u>Sharp Kabushiki Kaisha</u> Internal Address: _____ Street Address: _____ 22-22, Nagaike-cho, Abeno-ku Osaka-shi, Osaka 545-8522 JAPAN City: _____ State: _____ Country: _____ Zip: _____ Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3. Nature of conveyance/Execution Date(s): Execution Date(s): in parentheses after inventor name <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement <input type="checkbox"/> Government Interest Assignment <input type="checkbox"/> Executive Order 9424, Confirmatory License <input type="checkbox"/> Other _____			
4. Application or patent number(s): A. Patent Application No.(s) 13/378,214 Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> This document is being filed together with a new application. B. Patent No.(s) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name and address to whom correspondence concerning document should be mailed: Name: <u>Donald J. Daley</u> <u>HARNESS, DICKEY & PIERCE, P.L.C.</u> Internal Address: Atty. Dkt.: 12480SL-000533/US/NP Street Address: P.O. Box 8910 City: <u>Reston</u> State: <u>VA</u> Zip: <u>20195</u> Phone Number: <u>(703) 668-8000</u> Fax Number: <u>(703) 668-8200</u> Email Address: <u>dcmalroom@hdp.com</u>		6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$ <u>40.00</u> <input checked="" type="checkbox"/> Authorized to be charged to deposit account <input type="checkbox"/> Enclosed <input type="checkbox"/> None required (government interest not affecting title)	
		8. Payment Information Deposit Account Number <u>08-0750</u> Authorized User Name <u>Donald J. Daley</u>	
9. Signature: <div style="text-align: center;">  _____ Signature </div> <div style="text-align: right;"> <u>December 14, 2011</u> Date </div> <div style="text-align: center;"> <u>Donald J. Daley - 34,313</u> Name of Person Signing </div> <div style="text-align: right;"> Total number of pages including cover sheet, attachments, and documents: 5 </div>			

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PATENT
REEL: 027416 FRAME: 0109

RECORDATION FORM COVER SHEET (PTO-1595)
(supplemental sheet)**Additional Conveying Party(ies)/Execution Date(s) (1. Continued):**

Takahiro Yamaguchi (11/17/2011)

Additional Assignees (2. Continued):

Assignee Name: _____

Internal Address: _____

Street Address: _____

City: _____ State: _____ Country: _____ Zip: _____

Assignee Name: _____

Internal Address: _____

Street Address: _____

City: _____ State: _____ Country: _____ Zip: _____

Assignee Name: _____

Internal Address: _____

Street Address: _____

City: _____ State: _____ Country: _____ Zip: _____

Additional Applications and/or Patents (4. Continued):Additional Patent Application Numbers
4A. Continued:Additional Patent Numbers
4B. Continued:

Additional numbers attached?

☐

Yes

☐

No

1340149.1

ASSIGNMENT

Atty. Dkt. No.:

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

FLIP-FLOP, SHIFT REGISTER, DISPLAY DRIVE CIRCUIT, DISPLAY APPARATUS, AND DISPLAY PANEL

for which Assignor is about to make or has made United States or International application for patent

- (a) ☐ executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) ☐ executed on _____, _____, _____; or
- (c) ☒ filed on March 26, 2010, and assigned Serial No. _____ or PCT International Application No. PCT/JP2010/002196;
- (d) ☐ U.S. Patent No. _____, issued _____; and

WHEREAS, **SHARP KABUSHIKI KAISHA**

22-22 Nagaike-cho Abeno-ku

Osaka-shi, Osaka

JAPAN 545-8522

, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

ASSIGNMENT

Atty. Dkt. No.:

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.


The undersigned hereby grant(s) the law firm of Harness, Dickey & Pierce, P.L.C. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.



Yuhichiro MURAKAMI

November 17, 2011

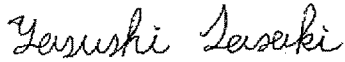
Dated



Shige FURUTA

November 17, 2011

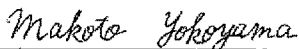
Dated



Yasushi SASAKI

November 17, 2011

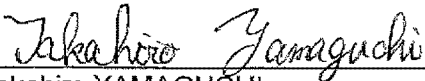
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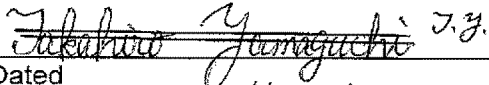
Makoto YOKOYAMA

November 17, 2011

Dated



Takahiro YAMAGUCHI



Dated

November 17, 2011