

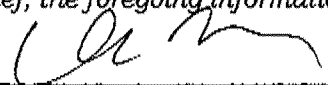
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Atty. Docket No. 12480SL-000292/US/DVA

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RECORDATION FORM COVER SHEET

To the Honorable Commissioner of Patents and Trademarks:
Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): Etsuo Yamamoto Yuhichiro Murakami Elji Matsuda Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		2. Name and address of receiving party(ies) Name: Sharp Kabushiki Kaisha Street Address: 22-22 Nagaike-cho, Ateno-ku, Osaka-shi, Osaka, Japan, 545-8522 Additional name(s) & address(es) attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: January 25, 2013, January 25, 2013, January 25, 2013			
4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No(s). 13/674,541 Additional numbers attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
5. Name and address of party to whom correspondence concerning document should be mailed: Name: HARNESS, DICKEY & PIERCE, P.L.C. Street Address: P.O. BOX 8910 City: RESTON State: VA ZIP: 20195 Country: USA		6. Total No. of applications/patents involved: One (1) 7. Total fee (37 C.F.R. § 3.41): \$40.00 <input checked="" type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account, if no fee attached. 8. Deposit account number: 08-0750 (Attach triplicate copy of this page if paying by deposit account)	
DO NOT USE THIS SPACE			
9. Statement and signature. <i>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.</i> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> <u>Donald J. Daley / 34,313</u> Name of Person Signing/Reg. No. </div> <div style="text-align: center;">  Signature </div> <div style="text-align: center;"> <u>February 15, 2013</u> Date </div> </div>			
Total number of pages including cover sheet, attachments, and document: Three (3) pages			

CH \$40.00 080750 13674541

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ASSIGNMENT

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

**SIGNAL OUTPUT CIRCUIT, SHIFT REGISTER, OUTPUT SIGNAL GENERATING METHOD,
DISPLAY DEVICE DRIVING CIRCUIT, AND DISPLAY DEVICE**

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);
- (b) ☐ executed on _____, _____, _____; or
- (c) ☒ filed on November 12, 2012, and assigned Serial No. 13/674,541; 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 all right, title, and interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby 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 throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, 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 sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

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, utility model, or other similar rights, and for copyright, 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, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the 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 the Letters Patent, Utility Model Registration or other similar right 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

Attorney Docket No. 12480SL-000292/US/DVA

ASSIGNMENT

in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Etsuo Yamamoto
Etsuo Yamamoto

January 25, 2013
Dated

Yuhichiro Murakami
Yuhichiro Murakami

January 25, 2013
Dated

Eiji Matsuda
Eiji Matsuda
January 25, 2013
Dated

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