From: Harness Dickey 703-668-8200 477741 Date: 1/4/2012 4:30:49 PM

Form <b>PTO-1595</b> (Rev. 01-09) OMB No. 0651-0027 (exp. 02/28/2009)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
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PATENTS ONLY	
To the Director of the U.S. Patent and Trademark Office: Please	record the attached documents or the new address(es) below.
Name of conveying party(ies):	2. Name and address of receiving party(ies)
Shinji Yukawa	Name: Sharp Kabushiki Kaisha
	Internal Address:
Additional name(s) of conveying party(ies) attached? Yes X No	Street Address:
3. Nature of conveyance/Execution Date(s):	22-22, Nagaike-cho, Abeno-ku
Execution Date(s): November 29, 2011	Osaka-shi, Osaka 545-8522
X Assignment Merger Change of Name	JAPAN
Security Agreement Joint Research Agreement	Gity:
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	Country: Zip:
Other	Additional name(s) & address(es) Yes X No attached?
A. Patent Application No.(s)  13/382,167  Additional numbers attached?	B. Patent No.(s)  Yes X No
Name and address to whom correspondence     concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Donald J. Daley	
HARNESS, DICKEY & PIERCE, P.L.C.	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.: 12480SL-000538/US/NP Street Address: P.O. Box 8910	X Authorized to be charged to deposit account     Enclosed     None required (government interest not affecting title)
City: Reston	8. Payment Information
State: VA Zip: 20195	
Phone Number: (703) 668-8000	
Fax Number: (703) 668-8200	Deposit Account Number 08-0750
Email Address: dcmailroom@hdp.com	Authorized User Name Donald J. Daley
9. Signature:  Signature	January 4, 2012  Date
	Total combon of cours including course
Donald J. Daley - 34,313  Name of Person Signing	sheet, attachments, and documents:

1353735.1

PATENT REEL: 027532 FRAME: 0546

## **ASSIGNMENT**

Atty. Dkt. No.:

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented: DISPLAY DEVICE AND DISPLAY DEVICE DRIVING METHOD for which Assignor is about to make or has made United States or International application for patent П executed on even date preparatory to filing (each inventor should sign (a) this Assignment on the same day as he/she signs the Declaration and Power of Attorney); executed on \_\_\_\_\_; or (b) filed on May 12, 2010 and assigned Serial No. \_\_\_\_\_\_ or PCT (c) X International Application No. PCT/JP2010/058037; U.S. Patent No. \_\_\_\_, issued \_\_\_\_; and (d)

## 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

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

PATENT REEL: 027532 FRAME: 0547 From: Harness Dickey 703-668-8200

To: 95712730140

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## ASSIGNMENT

Atty. Dkt. No.:

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.

**RECORDED: 01/04/2012** 

**PATENT REEL: 027532 FRAME: 0548**