From: Harness Dickey 703-668-8200 Tr 95712730140 Bare 3/5 700492253 08/28/2012 Date: 8/28/2012 4:13:47 PM

Form PTO-1595 (Rev. 03-11) OMB No. 0651-0027 (exp. 03/31/2012)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
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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):	2. Name and address of receiving party(ies)
Toshihiro YANAGI (08/02/2012), Kohji SAITOH (08/07/2012), and Masami OZAKI (08/07/2012)	Name: Sharp Kabushiki Kaisha
Additional name(s) of conveying party(ies) attached?	Internal Address:
3. Nature of conveyance/Execution Date(s):	22-22, Nagaike-cho, Abeno-ku
Execution Date(s): in parentheses after inventor name	Osaka-shi, Osaka 545-8522
X Assignment Merger Change of Name	JAPAN
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 No
4. Application or patent number(s): A. Patent Application No.(s) 13/581,538	This document is being filed together with a new application. B. Patent No.(s)
Additional numbers attached?	Yes XNo
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and 1 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-000569/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: August 28, 2012	
Signature	Date
Donald J. Daley - 34,313 Name of Person Signing	Total number of pages including cover 4 sheet, attachments, and documents:
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ASSIGNMENT

Atty. Dkt. No.:

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

DISPLAY DEVICE, METHOD FOR DRIVING SAME, AND LIQUID CRYSTAL 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 and Power of Attorney);

- (b) _____ executed on _____, ____; or
- (c) Since the filed on December 13, 2010, and assigned Serial No. ______ or PCT International Application No. <u>PCT/JP2010/072383;</u>
- (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

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

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PATENT REEL: 028856 FRAME: 0935

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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.

Toshihiro YANAGI

Dated

Kohji SAITOH

2012

Dated

Masami ÓZ

Dated

Page 2 of 2

PATENT REEL: 028856 FRAME: 0936

RECORDED: 08/28/2012