

2/27/12
Our Ref.: HWB-1035-1124



02/29/2012



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To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.		
1. Name of conveying party(ies): 1 Takehisa SAKURAI 5 Mitsuhiro MURATA 2 Shuichi KOZAKI 6 Tadashi OHTAKE 3 Shoichi ISHIHARA 7 4 Masako NAKAMURA 8 Additional name/s of conveying party/ies attached? <input type="checkbox"/> 3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Assignment <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ Execution Date: 1) December 26, 2011; 2) January 20, 2012; 3) December 24, 2011; 4) January 13, 2012; 5) January 13, 2012; 6) January 13, 2012		2. Name and address of receiving party(ies): 1) Name: SHARP KABUSHIKI KAISHA Street Address: 22-22, Nagaike-cho, Abeno-ku City: Osaka-shi State/Country: Osaka, Japan Zip: 545-8522 2) Name _____ Street Address: _____ City: _____ State/Country: _____ Zip: _____ Additional name/s & address/es attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4. Application number(s) or patent number(s): <input type="checkbox"/> This assignment is being filed together with a new application. A. Patent Application No(s): (1) 13/386,991 (2) (3) B. Patent No(s). (1) (2) (3) 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: H. Warren Burnam, Jr. Internal Address: _____ Street Address: Nixon & Vanderhye P.C. 901 North Glebe Road 11th Floor City: Arlington State: VA Zip: 22203		6. Total number of applications & patents involved: 1 7. Total fee (37 CFR 3.41) \$ 40.00 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to be charged to deposit account #14-1140 8. The Commissioner is hereby authorized to charge any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper thereafter filed in this application by this firm) to our Account No. 14-1140.
DO NOT USE THIS SPACE		
9. Statements and signature. 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. H. Warren Burnam, Jr. <i>H. Warren Burnam, Jr.</i> February 27, 2012 _____ Name of Person Signing Signature Date Reg. No. 29,366 Total number of pages including original cover sheet, attachments, and document: [7]		

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

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PATENT
REEL: 027921 FRAME: 0936

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ASSIGNMENT OF PATENT APPLICATION

(Inventors) Takehisa SAKURAI
Shuichi KOZAKI
Shoichi ISHIHARA
Masako NAKAMURA
Mitsuhiro MURATA
Tadashi OHTAKE

(Assignee) In consideration of the sum of one dollar (\$1.00) and other good and valuable
(Address) considerations paid to each of the undersigned, the undersigned agree(s) to assign, and
hereby does assign, transfer and set over to
SHARP KABUSHIKI KAISHA
of 22-22 Nagaike-cho Abeno-ku Osaka-shi Osaka 545-8522 Japan,
(hereinafter designated as the Assignee) the undersigned's entire right, title and interest
for the United States, its territories, dependencies and possessions, and for the country of
(Other in the invention, and all application(s) for patent and any Letters Patent which may
Countries) be granted therefor, known as
(Title) LIQUID CRYSTAL DISPLAY ELEMENT, LIQUID CRYSTAL DISPLAY DEVICE, AND
DISPLAY METHOD EMPLOYED IN LIQUID CRYSTAL DISPLAY ELEMENT (Case No.
-)
for which the undersigned has (have) executed on even date herewith an application for
patent in the United States of America or, if not on even date, then has executed
on or has already filed in
U.S. appln. Serial No. filed on
The undersigned acknowledges an obligation of assignment of this invention to said
assignee at the time the invention was made.

The undersigned agree(s) to execute all papers and documents necessary in connection with the
application or any interference which may be declared and any continuing or divisional applications
thereof and also to execute separate assignments in connection with such applications as the Assignee
may deem necessary or expedient and further to perform any act which may be necessary in connection
with claims or provisions of the International Convention for Protection of Industrial Property or similar
agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a
grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any
and all Letters Patent of the United States resulting from said application or any division or divisions or
continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby
covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has
(they have) not executed and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the firm of NIXON & VANDERHYE P.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 United States Patent Office for recordation of this document. It is understood and agreed that
ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to
represent only ASSIGNEE with respect to this invention.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned
signature(s).

Date	<u>Dec. 26, 2011</u>	Signature of inventor	<u>Takehisa Sakurai</u> Takehisa SAKURAI
Date	_____	Signature of inventor	_____ Shuichi KOZAKI
Date	_____	Signature of inventor	_____ Shoichi ISHIHARA
Date	<u>Jan, 13, 2012</u>	Signature of inventor	<u>Masako Nakamura</u> Masako NAKAMURA
Date	<u>Jan, 13, 2012</u>	Signature of inventor	<u>Mitsuhiro Murata</u> Mitsuhiro MURATA
Date	<u>Jan, 13, 2012</u> ^{m.m}	Signature of inventor	<u>Tadashi Ohtake</u> Mitsuhiro Murata ^{m.m} Tadashi OHTAKE
Date	_____	Signature of inventor	_____
Date	_____	Signature of inventor	_____
Date	_____	Signature of inventor	_____
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ASSIGNMENT OF PATENT APPLICATION

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(Other hereinafter designated as the Assignee) the undersigned's entire right, title and interest
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LIQUID CRYSTAL DISPLAY ELEMENT, LIQUID CRYSTAL DISPLAY DEVICE, AND
DISPLAY METHOD EMPLOYED IN LIQUID CRYSTAL DISPLAY ELEMENT (Case No.
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patent in the United States of America or, if not on even date, then has executed
on or has already filed in
U.S. appln. Serial No. filed on
The undersigned acknowledges an obligation of assignment of this invention to said
assignee at the time the invention was made.

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned signature(s).

Date _____ Signature of inventor

Takehisa SAKURAI

Date Jan. 20, 2012 Signature of inventor

Shuichi Kozaki
Shuichi KOZAKI

Date _____ Signature of inventor

Shoichi ISHIHARA

Date _____ Signature of inventor

Masako NAKAMURA

Date _____ Signature of inventor

Mitsuhiro MURATA

Date _____ Signature of inventor

Tadashi OHTAKE

Date _____ Signature of inventor

Date _____ Signature of inventor

Date _____ Signature of inventor

Date _____ Signature of inventor

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Date _____ Signature of inventor

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Tadashi OHTAKE

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for the United States, its territories, dependencies and possessions, and for the country of
in the invention, and all application(s) for patent and any Letters Patent which may
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LIQUID CRYSTAL DISPLAY ELEMENT, LIQUID CRYSTAL DISPLAY DEVICE, AND
DISPLAY METHOD EMPLOYED IN LIQUID CRYSTAL DISPLAY ELEMENT (Case No.
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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned
signature(s).

Date _____ Signature of inventor

Takehisa SAKURAI

Date _____ Signature of inventor

Shuichi KOZAKI

Date December 24, 2011 Signature of inventor

Shoichi Ishihara
Shoichi ISHIHARA

Date _____ Signature of inventor

Masako NAKAMURA

Date _____ Signature of inventor

Mitsuhiro MURATA

Date _____ Signature of inventor

Tadashi OHTAKE

Date _____ Signature of inventor

Date _____ Signature of inventor

Date _____ Signature of inventor

Date _____ Signature of inventor

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