



**ASSIGNMENT OF U.S. PATENT APPLICATION****Mamoru ONDA****Hajime WASHIO**

(Inventors)

(Assignee)

(Address)

(Title)

In consideration of the sum of one dollar (\$1.00) and other good and valuable 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** a corporation of **Osaka, Japan**

**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 in the invention, and all applications for patent and any Letters Patent which may be granted therefore, known as **BIDIRECTIONAL SHIFT REGISTER AND DISPLAY DEVICE INCORPORATING SAME**

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 August 30, 2004 or has already filed U.S. application Serial No. 10/860,660, on June 4, 2004.

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 30, Aug, '04 Signature of inventor

Mamoru Onda

Date 30, Aug, '04 Signature of inventor

Hajime Washio

Date \_\_\_\_\_ Signature of inventor

Date \_\_\_\_\_ Signature of inventor

Date \_\_\_\_\_ Signature of inventor

Witnessed by: Yasuhiko Hishida

Date 30, Aug, '04

Witnessed by: \_\_\_\_\_

Date \_\_\_\_\_

**ASSIGNMENT OF U.S. PATENT APPLICATION****Shunsuke HAYASHI**(Inventors) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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(Title)

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 August 14, 2004 or has already filed U.S. application Serial No. 10/860,660, on June 4, 2004.

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.

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

Date 2004.8.14 Signature of inventor Shunsuke Hayashi

Date \_\_\_\_\_ Signature of inventor \_\_\_\_\_

Date \_\_\_\_\_ Signature of inventor \_\_\_\_\_

Date \_\_\_\_\_ Signature of inventor \_\_\_\_\_

Date \_\_\_\_\_ Signature of inventor \_\_\_\_\_

Witnessed by: \_\_\_\_\_ Date \_\_\_\_\_

Witnessed by: \_\_\_\_\_ Date \_\_\_\_\_

**ASSIGNMENT OF U.S. PATENT APPLICATION****Hiroshi MUROFUSHI****Nobuhiko SUZUKI**

(Inventors)

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(Title) **BIDIRECTIONAL SHIFT REGISTER AND DISPLAY DEVICE INCORPORATING SAME**

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 September 21, 2004 or has already filed U.S. application Serial No. 10/860,660, on June 4, 2004.

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	<u>Sept. 21, 2004</u>	Signature of inventor	<u>Hiroshi Murofushi</u>
Date	<u>Sept. 21, 2004</u>	Signature of inventor	<u>Nobuhiko Suzuki</u>
Date	_____	Signature of inventor	_____
Date	_____	Signature of inventor	_____
Date	_____	Signature of inventor	_____

Witnessed by:	<u>Toshiharu Uchiyama</u>	Date	<u>Sept. 21, 2004</u>
Witnessed by:	_____	Date	_____