

# PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
<b>CONVEYING PARTY DATA</b>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Benjamin J. HADWEN</td> <td>06/28/2010</td> </tr> <tr> <td>Jason R. HECTOR</td> <td>06/28/2010</td> </tr> <tr> <td>Adrian Marc Simon JACOBS</td> <td>06/28/2010</td> </tr> <tr> <td>Patrick A. ZEBEDEE</td> <td>06/28/2010</td> </tr> </tbody> </table>		Name	Execution Date	Benjamin J. HADWEN	06/28/2010	Jason R. HECTOR	06/28/2010	Adrian Marc Simon JACOBS	06/28/2010	Patrick A. ZEBEDEE	06/28/2010
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<b>RECEIVING PARTY DATA</b>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>SHARP KABUSHIKI KAISHA</td> </tr> <tr> <td>Street Address:</td> <td>22-22, Nagaike-cho, Abeno-ku, Osaka-shi</td> </tr> <tr> <td>City:</td> <td>Osaka</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>545-8522</td> </tr> </table>		Name:	SHARP KABUSHIKI KAISHA	Street Address:	22-22, Nagaike-cho, Abeno-ku, Osaka-shi	City:	Osaka	State/Country:	JAPAN	Postal Code:	545-8522
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<b>PROPERTY NUMBERS Total: 1</b>											
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<b>CORRESPONDENCE DATA</b>											
<p>Fax Number: (216)621-6165</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 2166211113</p> <p>Email: msaralino@rennerotto.com</p> <p>Correspondent Name: Mark D Saralino</p> <p>Address Line 1: Renner, Otto, Boisselle &amp; Sklar, LLP</p> <p>Address Line 2: 1621 Euclid Avenue, Nineteenth Floor</p> <p>Address Line 4: Cleveland, OHIO 44115</p>											
ATTORNEY DOCKET NUMBER:	SHRPP0131US										
NAME OF SUBMITTER:	Mark D. Saralino										
Total Attachments: 2											

OP \$40.00 12830477

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**PATENT**  
**REEL: 024634 FRAME: 0968**

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**ASSIGNMENT**

**WHEREAS:**

NAME(S) AND  
ADDRESS(ES) OF  
INVENTOR(S)

Benjamin J. HADWEN  
85 Bayswater Road  
Oxford OX3 9PD United Kingdom

Jason R. HECTOR  
5 Fox Close, Garsington  
Oxford OX44 9AA United Kingdom

Adrian Marc Simon JACOBS  
15 Hilltop Road, Caversham  
Reading RG4 7HR United Kingdom

Patrick A. ZEBEDEE  
56 Bailey Road, Cowley  
Oxford OX4 3HY United Kingdom

(hereinafter referred to as ASSIGNOR), have invented a certain invention entitled:

TITLE OF  
INVENTION

**ARRAY ELEMENT CIRCUIT AND ACTIVE MATRIX DEVICE**

for which application for Letters Patent of the United States has been:

PARTICULARS OF  
APPLICATION

☒ [X] executed concurrently herewith,  
☒ [X] filed under U.S. Application No. 12/830,477 on 06 JULY 2010, or  
☐ [ ] filed under Express Mail Label No. \_\_\_\_\_ on \_\_\_\_\_

hereby sell(s) and assign(s) the entire worldwide right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries to:

NAME, STATE OF  
INCORPORATION  
AND ADDRESS OF  
ASSIGNEE

SHARP KABUSHIKI KAISHA  
22-22, Nagaïke-cho, Abeno-ku, Osaka-shi  
Osaka 545-8522 Japan

Including:

any and all related patent application n(s) in the United States or a country foreign thereto, including continuations, continuations-in-part, divisionals, conversions, renewals, substitutes, reissues, reexaminations, extensions, non-provisional applications, convention, International (e.g., Patent Cooperation Treaty (PCT)) and other applications based in whole or in part upon said invention(s) or upon said application(s);

any and all Letters Patent, renewals, reissues, reexamination certificates and extensions of Letters Patent granted for said invention(s) or upon said application(s); and

every priority right that is or may be predicated upon or arise from said invention(s), said application(s) and said Letters Patent.

I/We additionally authorize the Assignee to file patent applications in my/our name for Letters Patent in any country (by international convention, treaty or otherwise), to be held and enjoyed by the Assignee, its successors and assigns, to the full end of the term or terms for which Letters Patent respectively may be granted, reissued, reexamined or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this Assignment and transfer not been made.

I/We also appoint the Assignee as my/our common representative to represent me/us before all the competent International Authorities in connection with any and all international applications.

I/We hereby authorize the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to the Assignee in accordance herewith.

I/We hereby covenant that I/we have the full right to convey the entire interests herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith and that such assigned rights are not encumbered by any grant, license or other right previously given. I/We agree that each time a request is made, and without undue delay, I/we will execute and deliver all such papers as may be necessary or desirable to perfect the title in and to the invention(s), said application(s) and said Letters Patent, to the Assignee, its successors or assigns.

I/We agree, without undue delay, to undertake all reasonable acts to assure that said invention(s), patent application(s) and Letters Patent shall be held and enjoyed by the Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly: to execute and deliver to the Assignee all lawful documents including petitions, specifications, oaths, declarations, powers of attorney, assignments, invention disclaimers and lawful affidavits in form and substance which may be requested by the Assignee; to furnish the Assignee with all facts relating to said invention(s) or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said invention(s); and to testify in any proceedings relating to said invention(s), patent application(s) and Letters Patent.

I/We hereby sell, assign and transfer unto the Assignee the authority to revoke power(s) of attorney executed by me/us in connection with this application and to appoint a new power of attorney in place thereof.

I authorize the patent attorney of record and/or having power of attorney in the U.S. patent application identified above to insert the serial number and filing date information for the patent application in the appropriate spaces in this assignment document when that information becomes available.

FULL NAME(S) OF  
INVENTOR(S)

Date <u>28<sup>th</sup> June, 2010</u>	<u>Ben Haden</u> Benjamin J. HADWEN
Date <u>28<sup>th</sup> June 2010</u>	<u>JK Hector</u> Jason R. HECTOR
Date <u>28<sup>th</sup> June 2010</u>	<u>Adrian Marc Simon</u> Adrian Marc Simon JACOBS
Date <u>28<sup>th</sup> June 2010</u>	<u>Patrick ZEBEDEE</u> Patrick ZEBEDEE