

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Takuro Ohmaru</td> <td>05/01/2012</td> </tr> <tr> <td>Hidetomo Kobayashi</td> <td>05/04/2012</td> </tr> </tbody> </table>		Name	Execution Date	Takuro Ohmaru	05/01/2012	Hidetomo Kobayashi	05/04/2012				
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Semiconductor Energy Laboratory Co., Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>398, Hase</td> </tr> <tr> <td>City:</td> <td>Atsugi-shi, Kanagawa-ken</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>243-0036</td> </tr> </table>		Name:	Semiconductor Energy Laboratory Co., Ltd.	Street Address:	398, Hase	City:	Atsugi-shi, Kanagawa-ken	State/Country:	JAPAN	Postal Code:	243-0036
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CORRESPONDENCE DATA											
<p>Fax Number: (877)769-7945</p> <p>Phone: (202) 783-5070</p> <p>Email: apsi@fr.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: John F. Hayden</p> <p>Address Line 1: FISH &amp; RICHARDSON P.C.</p> <p>Address Line 2: P.O.BOX 1022</p> <p>Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022</p>											
ATTORNEY DOCKET NUMBER:	12732-1070001										
NAME OF SUBMITTER:	April K. Saunders-Fuller										
<p>Total Attachments: 1</p> <p>source=12732-1070001-ASN#page1.tif</p>											

CH \$40.00 13473706

## ASSIGNMENT

For valuable consideration, We, Takuro OHMARU of Zama, Kanagawa, Japan and Hidetomo KOBAYASHI of Isehara, Kanagawa, Japan hereby assign to Semiconductor Energy Laboratory Co., Ltd., a Japanese corporation having a place of business at:

398, Hase, Atsugi-shi, Kanagawa-ken, 243-0036 Japan

and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us this day, entitled SIGNAL PROCESSING CIRCUIT, filed May 17, 2012, and assigned U.S. Serial Number 13/473,706, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Signature Takuro Ohmaru  
Name: Takuro OHMARU  
Date: 05/01/2012

Signature Hidetomo KOBAYASHI  
Name: Hidetomo KOBAYASHI  
Date: 05/04/2012