

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

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|--------------------------------------------------------------------------------------|-------------------------------------------|
| SUBMISSION TYPE:                                                                     | NEW ASSIGNMENT                            |
| NATURE OF CONVEYANCE:                                                                | ASSIGNMENT                                |
| CONVEYING PARTY DATA                                                                 |                                           |
| Name                                                                                 | Execution Date                            |
| Yasuhiko Takemura                                                                    | 09/05/2012                                |
| RECEIVING PARTY DATA                                                                 |                                           |
| Name:                                                                                | Semiconductor Energy Laboratory Co., Ltd. |
| Street Address:                                                                      | 398, Hase                                 |
| City:                                                                                | Atsugi-shi, Kanagawa-ken                  |
| State/Country:                                                                       | JAPAN                                     |
| Postal Code:                                                                         | 243-0036                                  |
| PROPERTY NUMBERS Total: 1                                                            |                                           |
| Property Type                                                                        | Number                                    |
| Application Number:                                                                  | 13608512                                  |
| CORRESPONDENCE DATA                                                                  |                                           |
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| ATTORNEY DOCKET NUMBER:                                                              | 12732-1097001                             |
| NAME OF SUBMITTER:                                                                   | April K. Saunders-Fuller                  |
| Total Attachments: 1<br>source=12732-1097001-asn#page1.tif                           |                                           |

CH \$40.00 13608512

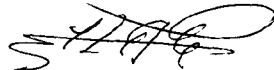
## ASSIGNMENT

For valuable consideration, I, Yasuhiko TAKEMURA 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 me this day, entitled MEMORY ELEMENT AND SIGNAL PROCESSING CIRCUIT, filed 09/10/2012, and assigned U.S. Serial Number 13/608,512, and I authorize and request the Assignee or 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 I authorize the Assignee to apply in all countries in my 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 I agree for myself and my 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



Name:

Yasuhiko TAKEMURA

Date:

09/05/2012