

# PATENT ASSIGNMENT

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT														
<b>NATURE OF CONVEYANCE:</b>	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>Tokunobu Akao</td><td>09/26/2011</td></tr> <tr><td>Unryu Ogawa</td><td>09/26/2011</td></tr> <tr><td>Masahisa Okuno</td><td>09/26/2011</td></tr> <tr><td>Shinji Yashima</td><td>09/26/2011</td></tr> <tr><td>Atsushi Umekawa</td><td>09/26/2011</td></tr> <tr><td>Kaichiro Minami</td><td>09/26/2011</td></tr> </tbody> </table>		Name	Execution Date	Tokunobu Akao	09/26/2011	Unryu Ogawa	09/26/2011	Masahisa Okuno	09/26/2011	Shinji Yashima	09/26/2011	Atsushi Umekawa	09/26/2011	Kaichiro Minami	09/26/2011
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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>Hitachi Kokusai Electric Inc.</td></tr> <tr><td>Street Address:</td><td>14-1, Sotokanda 4-chome</td></tr> <tr><td>Internal Address:</td><td>Chiyoda-ku</td></tr> <tr><td>City:</td><td>Tokyo</td></tr> <tr><td>State/Country:</td><td>JAPAN</td></tr> <tr><td>Postal Code:</td><td>1018980</td></tr> </table>		Name:	Hitachi Kokusai Electric Inc.	Street Address:	14-1, Sotokanda 4-chome	Internal Address:	Chiyoda-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	1018980		
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<b>CORRESPONDENCE DATA</b>															
<p>Fax Number: (215)568-6499</p> <p>Phone: 215-568-6400</p> <p>Email: jheuer@vklaw.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: Volpe and Koenig, P.C.</p> <p>Address Line 1: 30 S. 17th Street</p> <p>Address Line 2: United Plaza</p> <p>Address Line 4: Philadelphia, PENNSYLVANIA 19103</p>															

CH \$40.00 13239902

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**PATENT**  
**REEL: 027250 FRAME: 0294**

ATTORNEY DOCKET NUMBER:	HITACHI13-21010164US01
NAME OF SUBMITTER:	Daniel N. Calder
<b>Total Attachments: 7</b> source=21010164US01_Assignment_EFS#page1.tif source=21010164US01_Assignment_EFS#page2.tif source=21010164US01_Assignment_EFS#page3.tif source=21010164US01_Assignment_EFS#page4.tif source=21010164US01_Assignment_EFS#page5.tif source=21010164US01_Assignment_EFS#page6.tif source=21010164US01_Assignment_EFS#page7.tif	

**ASSIGNMENT**

**AKAO, Tokunobu**, residing at 1, Yasuuchi 2-chome, Yatsuo-machi, Toyama-shi, TOYAMA 9392393, Japan, a citizen of Japan; **OGAWA, Unryu**, residing at 1, Yasuuchi 2-chome, Yatsuo-machi, Toyama-shi, TOYAMA 9392393, Japan, a citizen of Japan; **OKUNO, Masahisa**, residing at 1, Yasuuchi 2-chome, Yatsuo-machi, Toyama-shi, TOYAMA 9392393, Japan, a citizen of Japan; **YASHIMA, Shinji**, residing at 1, Yasuuchi 2-chome, Yatsuo-machi, Toyama-shi, TOYAMA 9392393, Japan, a citizen of Japan; **UMEKAWA, Atsushi**, residing at 1, Yasuuchi 2-chome, Yatsuo-machi, Toyama-shi, TOYAMA 9392393, Japan, a citizen of Japan and **MINAMI, Kaichiro**, residing at 1, Yasuuchi 2-chome, Yatsuo-machi, Toyama-shi, TOYAMA 9392393, Japan, a citizen of Japan (hereafter jointly and severally referred to as the undersigned), are the inventors of

**SUBSTRATE PROCESSING APPARATUS AND METHOD OF  
MANUFACTURING A SEMICONDUCTOR DEVICE**

for which the undersigned have executed an application for United States Letters Patent, U.S. Patent Application No. 13/239,902, filed September 22, 20 11.

The undersigned hereby authorize assignee or assignee's representative to insert the Application Number and the filing date of this application if they are unknown at the time of execution of this assignment.

**HITACHI KOKUSAI ELECTRIC INC.**, a corporation, having a principal place of business at 14-1, Sotokanda 4-chome, Chiyoda-ku, TOKYO 1018980, Japan (hereafter referred to as the assignee), is desirous of acquiring the entire right, title and interest in said invention, all applications for and all letters patent issued on said invention.

For good and valuable consideration, the receipt and sufficiency of which is acknowledged, the undersigned, intending to be legally bound, do hereby sell, assign and transfer to the assignee and assignee's successors, assigns and legal representatives the entire right, title and interest in said invention and all patent applications thereon, including, but not limited to, the application for United States Letters Patent entitled as above, and all divisions and continuations thereof, and in

all letters patent, including all reissues and reexaminations thereof, throughout the world, including the right to claim priority under the Paris Convention or other treaty.

It is agreed that the undersigned shall be legally bound, upon request of the assignee, to supply all information and evidence relating to the making and practice of said invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention throughout the world for the benefit of the assignee, and to execute all instruments proper to carry out the intent of this instrument.

The undersigned warrant that the rights and property herein conveyed are free and clear of any encumbrance.

EXECUTED under seal on this 26<sup>th</sup> day of September, 2011

at Toyama-shi, Japan.

Witness:

Takahashi Tadashi

Akao Tokunobu (L.S.)  
AKAO, Tokunobu

(Although not mandatory, if possible,  
please subscribe appropriate notarization and obtain APOSTILLE)

EXECUTED under seal on this 26th day of September, 2011

at Toyama-shi, Japan.

Witness:

Oakasaki Tadashi

Unryu Ogawa (L.S.)  
OGAWA, Unryu

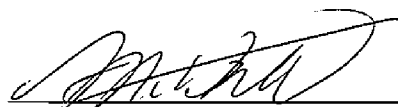
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Witness:

Yakuzaki Tadashi

 (L.S.)  
OKUNO, Masahisa

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EXECUTED under seal on this 26<sup>th</sup> day of September, 2011  
at Toyama-shi, Japan.

Witness:

Takasaki Tadoshi

Yashima Shinji (L.S.)  
YASHIMA, Shinji

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EXECUTED under seal on this 26th day of September, 2011  
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Witness:

Yakazaki Tadashi

UMEKAWA, Atsushi (L.S.)  
UMEKAWA, Atsushi

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EXECUTED under seal on this 26th day of September, 2011  
at Toyama-shi, Japan.

Witness:

Takahashi Tadashi

Kaichiro Minami (L.S.)  
**MINAMI, Kaichiro**

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