PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Naonori Akae	11/04/2009
Yoshiro Hirose	11/04/2009
Yushin Takasawa	11/05/2009
Yosuke OTA	11/04/2009

RECEIVING PARTY DATA

Name:	HITACHI KOKUSAI ELECTRIC INC.
Street Address:	14-1, SOTOKANDA 4-CHOME,
City:	CHIYODA-KU, TOKYO
State/Country:	JAPAN
Postal Code:	1018980

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13666272

CORRESPONDENCE DATA

Fax Number: 2155686499

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 215-568-6400 Email: ppetaccia@vklaw.com Correspondent Name: Daniel N. Calder Volpe And Koenig, P.C. Address Line 1: Address Line 2: 30 S. 17th Street, United Plaza Address Line 4: Philadelphia, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	HITACHI12-20810253US02
NAME OF SUBMITTER:	Daniel N. Calder
Signature:	/Daniel N. Calder/
Date:	07/29/2013

Total Attachments: 1

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REEL: 030893 FRAME: 0163

ASSIGNMENT

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to the undersigned by Hitachi Kokusai Electric Inc., a corporation organized under the laws of Japan, located at 14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 1018980, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi Kokusai Electric Inc., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE AND SUBSTRATE PROCESSING APPARATUS

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi Kokusai Electric Inc., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi Kokusai Electric Inc.

Signed on the date(s) indicated aside signatures:

INVENTOR(S)

Date Signed

1) Naonori Akae

Naonori Akae

November 4, 2009

2) Yoshiro Hirose

Yoshiro Hirose

November 4,2009

3) Yushin Takasawa

Yushin Tatrasawa

November 5, 2009

4) Yosuke Ota

Loculce Ota

November 4. 2009

PATENT

REEL: 030893 FRAME: 0164

RECORDED: 07/29/2013