

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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>Munehiro TADA</td> <td>08/22/2012</td> </tr> <tr> <td>Koichiro OKAMOTO</td> <td>08/22/2012</td> </tr> <tr> <td>Toshitsugu SAKAMOTO</td> <td>08/22/2012</td> </tr> <tr> <td>Hiromitsu HADA</td> <td>08/22/2012</td> </tr> </tbody> </table>		Name	Execution Date	Munehiro TADA	08/22/2012	Koichiro OKAMOTO	08/22/2012	Toshitsugu SAKAMOTO	08/22/2012	Hiromitsu HADA	08/22/2012
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<table border="1"> <tr> <td>Name:</td> <td>NEC Corporation</td> </tr> <tr> <td>Street Address:</td> <td>7-1, Shiba 5-chome, Minato-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>108-8001</td> </tr> </table>		Name:	NEC Corporation	Street Address:	7-1, Shiba 5-chome, Minato-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	108-8001
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CORRESPONDENCE DATA											
<p>Fax Number: 2026725399 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 202-672-5300 Email: rhale@foley.com Correspondent Name: FOLEY AND LARDNER LLP Address Line 1: 3000 K STREET NW Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20007</p>											
ATTORNEY DOCKET NUMBER:	029471-0290										
NAME OF SUBMITTER:	Effie Hale for George C. Beck										
<p>Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif</p>											

OP \$40.00 13635858

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

NEC CORPORATION

of 7-1, Shiba 5-chome, Minato-ku, Tokyo 108-8001, Japan

(hereinafter ASSIGNEE) its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions in and to this invention relating to

VARIABLE RESISTANCE ELEMENT, SEMICONDUCTOR DEVICE INCLUDING VARIABLE RESISTANCE ELEMENT, AND METHODS FOR MANUFACTURING VARIABLE RESISTANCE ELEMENT AND SEMICONDUCTOR DEVICE

as set forth in this United States Patent Application

Check ☒ executed concurrently herewith
one ☐ executed on _____
☐ Serial No. 13/635,858 Filed September 18, 2012
and

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations,





depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **Foley & Lardner LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

NAME AND SIGNATURE OF INVENTOR(S)

NAME: Munehiro TADA SIGNATURE: Munehiro Tada  DATE: Aug. 22, 2012
NAME: Koichiro OKAMOTO SIGNATURE: Koichiro Okamoto  DATE: Aug. 22, 2012
NAME: Toshitsugu SAKAMOTO SIGNATURE: Toshitsugu Sakamoto  DATE: Aug. 22, 2012
NAME: Hiromitsu HADA SIGNATURE: Hiromitsu Hada  DATE: Aug. 22, 2012

NAME AND SIGNATURE OF WITNESSES

NAME: _____ SIGNATURE: [Signature] DATE: Aug. 22, 2012
NAME: _____ SIGNATURE: [Signature] DATE: Aug. 22, 2012

Note: *Prima facie* evidence of execution may optionally be obtained by execution before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.