

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the the first inventor execution date and the second inventor name and date previously recorded on Reel 025213 Frame 0049. Assignor(s) hereby confirms the Assignment.
CONVEYING PARTY DATA	
Name	Execution Date
Hiroyuki TAKAHASHI	10/18/2010
Naoki OOKUMA	10/18/2010
RECEIVING PARTY DATA	
Name:	Renesas Electronics Corporation
Street Address:	1753 Shimonumabe, Nakahara-ku
City:	Kawasaki, Kanagawa
State/Country:	JAPAN
Postal Code:	211-8668
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12912309
CORRESPONDENCE DATA	
Fax Number:	(202)672-5399
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	202-672-5300
Email:	rhale@foley.com
Correspondent Name:	Foley & Lardner LLP
Address Line 1:	3000 K Street NW
Address Line 4:	Washington, DISTRICT OF COLUMBIA 20007
ATTORNEY DOCKET NUMBER:	098248-0116
NAME OF SUBMITTER:	Effie Hale for George C. Beck

OP \$40.00 12912309

Total Attachments: 11
 source=Corr_Assignment#page1.tif

501366643

PATENT
REEL: 025437 FRAME: 0733

source=Corr_Assignment#page2.tif
source=Corr_Assignment#page3.tif
source=Corr_Assignment#page4.tif
source=Corr_Assignment#page5.tif
source=Corr_Assignment#page6.tif
source=Corr_Assignment#page7.tif
source=Corr_Assignment#page8.tif
source=Corr_Assignment#page9.tif
source=Corr_Assignment#page10.tif
source=Corr_Assignment#page11.tif

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

10/28/2010
 501334331

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>Hiroyuki TAKAHASHI</td> <td>10/21/2010</td> </tr> <tr> <td>Masahiro YOSHIDA</td> <td>10/21/2010</td> </tr> </tbody> </table>		Name	Execution Date	Hiroyuki TAKAHASHI	10/21/2010	Masahiro YOSHIDA	10/21/2010
Name	Execution Date						
Hiroyuki TAKAHASHI	10/21/2010						
Masahiro YOSHIDA	10/21/2010						
RECEIVING PARTY DATA							
Name:	Renesas Electronics Corporation						
Street Address:	1753 Shimonumabe, Nakahara-ku						
City:	Kawasaki, Kanagawa						
State/Country:	JAPAN						
Postal Code:	211-8688						
PROPERTY NUMBERS Total: 1							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12912309</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12912309		
Property Type	Number						
Application Number:	12912309						
CORRESPONDENCE DATA							
Fax Number:	(202)672-5399						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	202-672-5300						
Email:	rhale@foley.com						
Correspondent Name:	Foley & Lardner LLP						
Address Line 1:	3000 K Street NW						
Address Line 4:	Washington, DISTRICT OF COLUMBIA 20007						
ATTORNEY DOCKET NUMBER:	074273-0365						
NAME OF SUBMITTER:	Effie Hale for George C. Beck						
Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif							

OP \$40.00 12912309

TO: FOLEY & LARDNER LLP COMPANY: 3000 K STREET NW

U.S. Rights-Sole or Joint

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

Renesas Electronics Corporation
1753 Shimonumabe, Nakahara-ku, Kawasaki, Kanagawa 211-8668 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

SEMICONDUCTOR MEMORY DEVICE

as set forth in this United States Patent Application

Check executed concurrently herewith
one executed on _____
 Serial No. 12/912,309 Filed 10/28/10
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

TO: FOLEY & LARDNER LLP COMPANY: 3000 K STREET NW

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: Hiroyuki TAKAHASHI SIGNATURE: *Hiroyuki Takahashi* DATE: October 18, 2010

NAME: Naoki OOKUMA SIGNATURE: *Naoki Ookuma* DATE: October 18, 2010

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME AND SIGNATURE OF WITNESSES

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

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

TO: FOLEY & LARDNER LLP COMPANY: 3000 K STREET NW

**UNITED STATES PATENT AND TRADEMARK OFFICE**UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

NOVEMBER 03, 2010

501335578

PTAS

FOLEY & LARDNER LLP
3000 K STREET NW
WASHINGTON, DC 20007UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF NON-RECORDATION OF DOCUMENT

DOCUMENT ID NO.: 501335578

THE ENCLOSED DOCUMENT HAS BEEN EXAMINED AND FOUND NON-RECORDABLE BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. THE REASON(S) FOR NON-RECORDATION ARE STATED BELOW. DOCUMENTS BEING RESUBMITTED FOR RECORDATION MUST BE ACCOMPANIED BY A NEW COVER SHEET REFLECTING THE CORRECT INFORMATION TO BE RECORDED AND THE DOCUMENT ID NUMBER REFERENCED ABOVE.

THE ORIGINAL DATE OF FILING OF THIS ASSIGNMENT DOCUMENT WILL BE MAINTAINED IF RESUBMITTED WITH THE APPROPRIATE CORRECTION(S) WITHIN 30 DAYS FROM THE DATE OF THIS NOTICE AS OUTLINED UNDER 37 CFR 3.51. THE RESUBMITTED DOCUMENT MUST INCLUDE A STAMP WITH THE OFFICIAL DATE OF RECEIPT UNDER 37 CFR 3. APPLICANTS MAY USE THE CERTIFIED PROCEDURES UNDER 37 CFR 1.8 OR 1.10 FOR RESUBMISSION OF THE RETURNED PAPERS, IF THEY DESIRE TO HAVE THE BENEFIT OF THE DATE OF DEPOSIT IN THE UNITED STATES POSTAL SERVICE.

SEND DOCUMENTS TO: U.S. PATENT AND TRADEMARK OFFICE,
MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.
IF YOU HAVE ANY QUESTIONS REGARDING THIS NOTICE,
YOU MAY CONTACT THE INDIVIDUAL WHOSE NAME APPEARS ON THIS NOTICE AT
571-272-3350.

1. THE DOCUMENT SUBMITTED TO CORRECT ERRORS IN THE PREVIOUSLY RECORDED DOCUMENT IS NOT ACCEPTABLE. TO CORRECT AN ERROR IN THE RECORDED DOCUMENT, A CORRECTIVE COVER SHEET ALONG WITH THE ORIGINAL COVER SHEET, MUST BE ACCOMPANIED BY THE CORRECT ASSIGNMENT DOCUMENT OR A COPY OF THE CORRECT ASSIGNMENT DOCUMENT. THE RECORDING FEE FOR THE CORRECTIONS AS SET FORTH IN 37 CFR 3.34.
2. SEND BACK ALL CORRESPONDENCE INCLUDING THE NOTICE OF NON-RECORDATION. TO AVOID ADDITIONAL CHARGES FAX TO 571-273-0140.

LAZENA MARTIN, EXAMINER
ASSIGNMENT SERVICES BRANCH

P.O. Box 1450, Alexandria, Virginia 22313-1450 - www.uspto.gov

PATENT
REEL: 025437 FRAME: 0738

USPTO

11/3/2010 12:26:53 PM

PAGE

3/007

Fax Server

TO:FOLEY & LARDNER LLP COMPANY:3000 K STREET NW

PUBLIC RECORDS DIVISION

PATENT
REEL: 025437 FRAME: 0739

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

10/29/2010
501335578

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT										
NATURE OF CONVEYANCE:	Corrective Assignment to correct the first inventor execution date and the second inventor name and date previously recorded on Reel 025213 Frame 0049. Assignor(s) hereby confirms the Assignment.										
CONVEYING PARTY DATA											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Hiroyuki TAKAHASHI</td> <td>10/18/2010</td> </tr> <tr> <td>Naoki OOKUMA</td> <td>10/18/2010</td> </tr> </tbody> </table>		Name	Execution Date	Hiroyuki TAKAHASHI	10/18/2010	Naoki OOKUMA	10/18/2010				
Name	Execution Date										
Hiroyuki TAKAHASHI	10/18/2010										
Naoki OOKUMA	10/18/2010										
RECEIVING PARTY DATA											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>Renesas Electronics Corporation</td> </tr> <tr> <td>Street Address:</td> <td>1753 Shimonumabe, Nakahara-ku</td> </tr> <tr> <td>City:</td> <td>Kawasaki, Kanagawa</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>211-8668</td> </tr> </table>		Name:	Renesas Electronics Corporation	Street Address:	1753 Shimonumabe, Nakahara-ku	City:	Kawasaki, Kanagawa	State/Country:	JAPAN	Postal Code:	211-8668
Name:	Renesas Electronics Corporation										
Street Address:	1753 Shimonumabe, Nakahara-ku										
City:	Kawasaki, Kanagawa										
State/Country:	JAPAN										
Postal Code:	211-8668										
PROPERTY NUMBERS Total: 1											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12912309</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12912309						
Property Type	Number										
Application Number:	12912309										
CORRESPONDENCE DATA											
<p>Fax Number: (202)672-5399 <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 & Lardner LLP Address Line 1: 3000 K Street NW Address Line 4: Washington, DISTRICT OF COLUMBIA 20007</p>											
ATTORNEY DOCKET NUMBER:	074273-0365										
NAME OF SUBMITTER:	Effie Hale for George C. Beck										
<p>Total Attachments: 2 source=Corr_Assignments#page1.tif</p>											

OP \$40.00 12912309

USPTO

11/3/2010 12:26:53 PM

PAGE

5/007

Fax Server

TO: FOLEY & LARDNER LLP COMPANY: 3000 K STREET NW

source=Corr_Assignment#page2.tif



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE



501334331A

OCTOBER 28, 2010

PTAS

FOLEY & LARDNER LLP
3000 K STREET NW
WASHINGTON, DC 20007

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 10/28/2010

REEL/FRAME: 025213/0049
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 074273-0365

ASSIGNOR:
TAKAHASHI, HIROYUKI

DOC DATE: 10/21/2010

ASSIGNOR:
YOSHIDA, MASAHIRO

DOC DATE: 10/21/2010

ASSIGNEE:
RENESAS ELECTRONICS CORPORATION
1753 SHIMONUMABE, NAKAHARA-KU
KAWASAKI, KANAGAWA, JAPAN 211-8668

SERIAL NUMBER: 12912309
PATENT NUMBER:
TITLE: SEMICONDUCTOR MEMORY DEVICE

FILING DATE:
ISSUE DATE:

FOLEY & LARDNER LLP COMPANY:3000 K STREET NW

025213/0049 PAGE 2

ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

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

Renesas Electronics Corporation
1753 Shimonumabe, Nakahara-ku, Kawasaki, Kanagawa 211-8668 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

SEMICONDUCTOR MEMORY DEVICE

as set forth in this United States Patent Application

Check
one

executed concurrently herewith
 executed on _____
 Serial No. 12/912,309 Filed 10/26/10
 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: Hiroyuki TAKAHASHI SIGNATURE: Hiroyuki Takahashi DATE: October 18, 2010

NAME: Naoki OOKUMA SIGNATURE: Naoki Okuma DATE: October 18, 2010

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

NAME AND SIGNATURE OF WITNESSES

NAME: _____ SIGNATURE: _____ DATE: _____

NAME: _____ SIGNATURE: _____ DATE: _____

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