# PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Masafumi Onouchi	05/31/2013
Kazuo Otsuga	06/09/2013
Yasuto Igarashi	04/23/2013
Sadayuki Morita	04/24/2013
Koichiro Ishibashi	04/21/2013
Kazumasa Yanagisawa	04/23/2013

## **RECEIVING PARTY DATA**

Name:	Renesas Elecronics Corporation	
Street Address:	1753, Shimonumabe, Nakahara-ku, Kawasaki-shi	
City:	Kanagawa	
State/Country:	JAPAN	

# PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13674766

# **CORRESPONDENCE DATA**

Fax Number: 2027568087

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

Phone: 202-756-8000 Email: tjeffers@mwe.com

Correspondent Name: MCDERMOTT WILL & EMERY LLP

Address Line 1: The McDermott Building
Address Line 2: 500 North Capitol Street, N.W.

Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20001

ATTORNEY DOCKET NUMBER:	067237-0775
NAME OF SUBMITTER:	Tara Jeffers
	PATENT

502402635 REEL: 030709 FRAME: 0074

440 00 136747

Signature:	/Tara Jeffers/
Date:	06/28/2013
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 8 source=dec_assignment#page1.tif source=dec_assignment#page2.tif source=dec_assignment#page3.tif source=dec_assignment#page4.tif source=dec_assignment#page5.tif source=dec_assignment#page6.tif source=dec_assignment#page7.tif source=dec_assignment#page8.tif	



#### ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, Renesas Electronics Corporation of Kanagawa, Japan, (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 USC 119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

	he assignee in connection with the United States application when called upon to do so by	
(Legalization not required for recording but is pr	ima facie evidence of execution under 35 USC 261)	
As the below named inventor, I hereby declare t	hat:	
This assignment with declaration is directed to:	The attached application, or	
X	United States Application or PCT International Application Number 13/674766	
1	filed on November 12, 2012.	
The application is entitled:		
	SEMICONDUCTOR INTEGRATED CIRCUIT	
The above identified application was made or wa	as authorized to be made by me.	
I believe that I am the original inventor or an ori	ginal joint inventor of a claimed invention in the application.	
I have reviewed and understand the contents of	the application for which this assignment with declaration is being submitted.	
I am aware of the duty to disclose to the Office	all information known to me to be material to patentability as defined in 37 CFR 1.56.	
I hereby acknowledge that any willful false state or imprisonment of not more than five (5) years	ment made in this assignment with declaration is punishable under 18 USC 1001 by fine , or both.	
Authorization To Permit Access To Application	n by Participating Office	
(JPO), the Korean Intellectual Property Office (property offices in which a foreign application of patent application. See 37 CFR 1.14(c) and (h).	the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual aiming priority to the above-identified application is filed access to the above-identified This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or ign application claiming priority to the above-identified application is filed to have	
In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the application-as-filed with respect to: 1) the above-identified patent application-as-filed, 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application, and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.		

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit

Access to Application by Participating Office.

Legal Name of Inventor	Masafumi ONOUC	HI	
Inventor's Signature	Masafermi	Omouchi	Date May 31, 2013
Legal Name of Additional Ir	ventor, If Any	Kazuo OTSUGA	
Inventor's Signature			Date
Legal Name of Additional Ir	ventor, If Any	Yasuto IGARASHI	
Inventor's Signature			Date
Legal Name of Additional Ir	ventor, If Any	Sadayuki MORITA	
Inventor's Signature			Date
Legal Name of Additional Ir	eventor, If Any	Koichiro ISHIBASHI	
Inventor's Signature			Date
Legal Name of Additional Ir	eventor, If Any	Kazumasa YANAGISAWA	
Inventor's Signature			Date

**REEL: 030709 FRAME: 0077** 

## ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, Renesas Electronics Corporation of Kanagawa, Japan, (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 USC 119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

		plication to the assignee, its successors and assigns; and I/we will execute without further $r$ the assignee in connection with the United States application when called upon to do so by
(Legalization not required for recording	but is	prima facie evidence of execution under 35 USC 261)
As the below named inventor, I hereby	declare	e that:
This assignment with declaration is directed to:		The attached application, or
	X	United States Application or PCT International Application Number 13/674766
		filed on November 12, 2012.
The application is entitled:		
		SEMICONDUCTOR INTEGRATED CIRCUIT
The above identified application was m	ade or	was authorized to be made by me.
I believe that I am the original inventor	or an o	original joint inventor of a claimed invention in the application.
I have reviewed and understand the co	ntents	of the application for which this assignment with declaration is being submitted.
I am aware of the duty to disclose to t	he Offic	ce all information known to me to be material to patentability as defined in 37 CFR 1.56.
I hereby acknowledge that any willful fa or imprisonment of not more than five		atement made in this assignment with declaration is punishable under 18 USC 1001 by fine rs, or both.
Authorization To Permit Access To A	pplicat	ion by Participating Office
(JPO), the Korean Intellectual Property property offices in which a foreign appl patent application. See 37 CFR 1.14(c)	y Office lication and (h	s the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual claiming priority to the above-identified application is filed access to the above-identified ). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or
identified patent application-as-filed, 2 119(a)-(d) if a copy of the foreign appli	) any fo	will be provided to a copy of the application—as—filed with respect to: 1) the above—oreign application to which the above—identified application claims priority under 35 USC that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above—application—as—filed from which benefit is sought in the above—identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

Ř110138

Legal Name of Inventor Masafumi ONOUCHI		
Inventor's Signature	Date	
Legal Name of Additional Inventor, If Any Kazuo OTSUGA		
Inventor's Signature	Date Jame 9, 2013	
Legal Name of Additional Inventor, If Any Yasuto IGARASHI		
Inventor's Signature	Date	
Legal Name of Additional Inventor, If Any Sadayuki MORITA		
Inventor's Signature	Date	
Legal Name of Additional Inventor, If Any Koichiro ISHIBASHI		
Inventor's Signature	Date	
Legal Name of Additional Inventor, If Any Kazumasa YANAGISAWA		
Inventor's Signature	Date	

Page 2 of 2

### ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, Renesas Electronics Corporation of Kanagawa, Japan, (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 USC 119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

=	application to the assignee, its successors and assigns; and I/we will execute without further by the assignee in connection with the United States application when called upon to do so by
(Legalization not required for recording but i	is prima facie evidence of execution under 35 USC 261)
As the below named inventor, I hereby deck	are that:
This assignment with declaration is directed to:	The attached application, or
X	United States Application or PCT International Application Number 13/674766
	filed on November 12, 2012.
The application is entitled:	
	SEMICONDUCTOR INTEGRATED CIRCUIT
The above identified application was made o	or was authorized to be made by me.
I believe that I am the original inventor or a	n original joint inventor of a claimed invention in the application.
I have reviewed and understand the conten	ts of the application for which this assignment with declaration is being submitted.
I am aware of the duty to disclose to the O	ffice all information known to me to be material to patentability as defined in 37 CFR 1.56.
I hereby acknowledge that any willful false s or imprisonment of not more than five (5) yo	statement made in this assignment with declaration is punishable under 18 USC 1001 by fine ears, or both.
Authorization To Permit Access To Applic	ation by Participating Office
(JPO), the Korean Intellectual Property Offi property offices in which a foreign application patent application. See 37 CFR 1.14(c) and	ints the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual on claiming priority to the above-identified application is filed access to the above-identified (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or foreign application claiming priority to the above-identified application is filed to have
identified patent application-as-filed, 2) any 119(a)-(d) if a copy of the foreign application	ss will be provided to a copy of the application—as—filed with respect to: 1) the above— of foreign application to which the above—identified application claims priority under 35 USC on that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above—identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

Legal Name of Inventor Masafumi ONOUCHI	
Inventor's Signature	Date
Legal Name of Additional Inventor, If Any Kazuo OTSUGA	
Inventor's Signature	Date
Legal Name of Additional Inventor, If Any Yasuto IGARASHI	
Inventor's Signature yasuto agarashi	Date April 23, 2013
Legal Name of Additional Inventor, If Any Sadayuki MORITA	
Inventor's Signature Sadayuki, Moritor	Date APH 24, 2013
Legal Name of Additional Inventor, If Any Koichiro ISHIBASHI	
Inventor's Signature	Date
Legal Name of Additional Inventor, If Any <u>Kazumasa YANAGISAWA</u>	
Inventor's Signature (620mass (a) 156m	Date April 23, 2013

## ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, Renesas Electronics Corporation of Kanagawa, Japan, (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 USC 119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

		the assignee in connection with the United States application when called upon to do so by
(Legalization not required for recording	but is p	orima facie evidence of execution under 35 USC 261)
As the below named inventor, I hereby	declare	that:
This assignment with declaration is directed to:		The attached application, or
	X	United States Application or PCT International Application Number 13/674766
		filed on November 12, 2012.
The application is entitled:		
		SEMICONDUCTOR INTEGRATED CIRCUIT
The above identified application was ma	ade or v	was authorized to be made by me.
I believe that I am the original inventor	or an o	riginal joint inventor of a claimed invention in the application.
I have reviewed and understand the cor	ntents	of the application for which this assignment with declaration is being submitted.
I am aware of the duty to disclose to the	ne Offic	e all information known to me to be material to patentability as defined in 37 CFR 1.56.
I hereby acknowledge that any willful fa or imprisonment of not more than five (		tement made in this assignment with declaration is punishable under 18 USC 1001 by fine rs, or both.
Authorization To Permit Access To Ap	pplicati	on by Participating Office
(JPO), the Korean Intellectual Property property offices in which a foreign appli patent application. See 37 CFR 1.14(c)	Office ication and (h)	the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual claiming priority to the above-identified application is filed access to the above-identified. This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or reign application claiming priority to the above-identified application is filed to have
identified patent application-as-filed, 2) 119(a)-(d) if a copy of the foreign applications applied to the foreign	) any fo cation t	will be provided to a copy of the application—as—filed with respect to: 1) the above—oreign application to which the above—identified application claims priority under 35 USC that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above—oplication—as—filed from which benefit is sought in the above—identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

R110138

Legal Name of Inventor <u>Masafumi ONOUC</u>	CHI	
Inventor's Signature		Date
Legal Name of Additional Inventor, If Any	Kazuo OTSUGA	
Inventor's Signature		Date
Legal Name of Additional Inventor, If Any	Yasuto IGARASHI	
Inventor's Signature		Date
Legal Name of Additional Inventor, If Any	Sadayuki MORITA	
Inventor's Signature		Date
Legal Name of Additional Inventor, If Any	Koichiro [SHIBASH]	
Inventor's Signature Koichiro	Qshikashi	Date April 21, 2013
Legal Name of Additional Inventor, If Any	Kazumasa YANAGISAWA	
Inventor's Signature		Date

Page 2 of 2