PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MITSUHIKO IGARASHI	04/21/2016
KAN TAKEUCHI	04/21/2016
TAKESHI OKAGAKI	04/20/2016

RECEIVING PARTY DATA

Name:	RENESAS ELECTRONICS CORPORATION
Street Address:	2-24, TOYOSU 3-CHOME, KOUTOU-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	135-0061

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15178817

CORRESPONDENCE DATA

Fax Number: (202)293-7860

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 202-293-7060

Email: sughrue@sughrue.com, kel-amin@sughrue.com

SUGHRUE MION, PLLC **Correspondent Name:**

Address Line 1: 2100 PENNSYLVANIA AVENUE, N.W.

Address Line 2: SUITE 800

Address Line 4: WASHINGTON, D.C. 20037-3213

ATTORNEY DOCKET NUMBER:	Q227207	
NAME OF SUBMITTER:	KEMET EL-AMIN, NEW APPS DEPARTMENT	
SIGNATURE:	/Kemet El-Amin/	
DATE SIGNED: 06/10/2016		
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 4

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Docket No.: Only After Sept 16, 2012

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 2-24, Toyosu 3-chome, Koutou-ku, Tokyo 135-0061, 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.

(Legalization not required for recording	but is	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		
		United States Application or PCT International Application Number	
		filed on	
The application is entitled:			
		SEMICONDUCTOR DEVICE	
The above identified application was m	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 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	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 s, or both.	
Authorization To Permit Access To A	pplicati	on by Participating Office	
(JPO), the Korean Intellectual Property property offices in which a foreign appl 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	
n 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—			

In accordance with 3 / 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	Mitsuhiko IGARASHI		
Inventor's Signature	Mitsuhiko I	garashi	Date April 21, 20/6
Legal Name of Additional l	nventor, If Any <u>Kan</u>	TAKEUCHI	
Inventor's Signature	Kan Jan	kouchi	Date April 2/, 2016
Legal Name of Additional I	nventor, If Any <u>Tak</u>	eshi OKAGAKI	
		,	.

Docket No.: Only After Sept 16, 2012

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 2-24, Toyosu 3-chome, Koutou-ku, Tokyo 135-0061, 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.

consideration all papers deemed necess the assignee.	sary by 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 that:
This assignment with declaration is directed to:	X The attached application, or
	United States Application or PCT International Application Number
	filed on
The application is entitled:	
	SEMICONDUCTOR DEVICE
The above identified application was ma	de or was authorized to be made by me.
I believe that I am the original inventor	or an original 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	e Office 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 (lse statement made in this assignment with declaration is punishable under 18 USC 1001 by fine 5) years, or both.
Authorization To Permit Access To Ap	pplication by Participating Office
(JPO), the Korean Intellectual Property property offices in which a foreign applipatent application. See 37 CFR 1.14(c)	grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual cation claiming priority to the above-identified application is filed access to the above-identified and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or the aforeign application claiming priority to the above-identified application is filed to have
identified patent application-as-filed, 2)	ccess will be provided to a copy of the application—as—filed with respect to: 1) the above—any foreign application to which the above—identified application claims priority under 35 USC sation that satisfies the certified copy requirement of 37 CEP 155 has been filed in the above—

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.

identified patent application, and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

Legal Name of Inventor Mitsuhiko IGA	ARASHI		***************************************
Inventor's Signature		Date	
Legal Name of Additional Inventor, If Any	Kan TAKEUCHI		
Inventor's Signature		Date	
Legal Name of Additional Inventor, If Any	Takeshi OKAGAKI		
Inventor's Signature	i Objectá	Date	BON / 20, 20/6

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