505090493 09/12/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5137251

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ASSIGNORS previously recorded on Reel 043009 Frame 0959. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNORS INTEREST.
RESUBMIT DOCUMENT ID:	504994350

CONVEYING PARTY DATA

Name	Execution Date
TOMOYA SAITO	04/18/2017
MASAMICHI FUJITO	04/18/2017
KOICHI ANDO	04/18/2017
TAKASHI HASHIMOTO	04/18/2017

RECEIVING PARTY DATA

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City:	TOKYO
State/Country:	JAPAN
Postal Code:	135-0061

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15650282

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	NICHOLE MCRORIE, SECRETARY
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DATE SIGNED:	09/12/2018

PATENT REEL: 046852 FRAME: 0657

505090493

Total Attachments: 7

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07/14/2017 504457907

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4504608

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOMOYA SAITO	04/18/2017
MASAMICHI FUJITO	04/18/2017
KOICHI ANDO	04/18/2017
TAKASHI HASHIMOTO	04/18/2017
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Postal Code:	135-0061

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15650282

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	Q233526
NAME OF SUBMITTER:	TONNEISHA DOLBY
SIGNATURE:	/Tonneisha Dolby/
DATE SIGNED:	07/14/2017

Total Attachments: 6

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:	
	FLASH MEMORY
The above identified application was ma	ade 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 co	ntents of the application for which this assignment with declaration is being submitted.
I am aware of the duty to disclose to the	ne 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 A	pplication by Participating Office
(JPO), the Korean Intellectual Property property offices in which a foreign appl patent application. See 37 CFR 1.14(c)	r 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 ication 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 ch a foreign 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 appli	access 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 cation that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above- r 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.

regai Mame of tuventor	Tomoya SALIU		***************************************	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Inventor's Signature	They Suit		Date April	Date April 18, 2017	
Legal Name of Additional I	Inventor, If Any	Masamichi FUJITO	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Inventor's Signature	Masamic	hi FUJITO) Date April	18, 2017	
Legal Name of Additional I	Inventor, If Any	Koichi, ANDO		***************************************	
Inventor's Signature	MAAAAAAAA		Date		
Legal Name of Additional I	Inventor, If Any	Takashi HASHIMOTO			
Inventor's Signature			Date		

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. Petent 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 prima facie evidence of execution under 35 USC 261) As the below named inventor, I hereby declare that: X The attached application, or This assignment with declaration is directed to: United States Application or PCT International Application Number filed on The application is entitled: FLASH MEMORY The above identified application was made 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 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 statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. Authorization To Permit Access To Application by Participating Office If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified application is filed to have access to the application. 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 aboveidentified 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 aboveidentified 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 OFR 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	Tomoya SALTO		***************************************
Inventor's Signature		Date	·
Legal Name of Additional Ir	nventor, If Any <u>Masamichi FUJITO</u>	RARRAMANANAHARRARAKARRARA	RANKA dan manananan kanan
Inventor's Signature		Date	**************************************
Legal Name of Additional Ir	nventor, If Any <u>Koichi ANDO</u>	***************************************	
Inventor's Signature	Korehi ando	Date <u>Apy</u>	il 18 2017
Legal Name of Additional Ir	nventor, If Any Takashi HASHIMOTO		·
Inventor's Signature	Takashi Hashimato	Date Apr	1 18,2017