#### 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	
FUMIHIDE MURAO	05/22/2017	

### **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:	15650282

### **CORRESPONDENCE DATA**

Fax Number: (202)293-7860

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Email: tdolby@sughrue.com, sughrue@sughrue.com

SUGHRUE MION, PLLC **Correspondent Name:** 

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

SUITE 800 Address Line 2:

Address Line 4: WASHINGTON, D.C. 20037

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

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 neces the assignee.	y by the assignee in connection with the United States application wher	i called upon to do so by
(Legalization not required for recording	it is prima facie evidence of execution under 35 USC 261)	
As the below named inventor, I hereby	clare that:	
This assignment with declaration is directed to:	X The attached application, or	
	United States Application or PCT International Application Number	r
	filed on	
The application is entitled:		
	FLASH MEMORY	
The above identified application was m	e or was authorized to be made by me.	
I believe that I am the original inventor	an original joint inventor of a claimed invention in the application.	
I have reviewed and understand the co	ents of the application for which this assignment with declaration is bein	g submitted.
I am aware of the duty to disclose to t	Office all information known to me to be material to patentability as defi	ined in 37 CFR 1.56.
I hereby acknowledge that any willful fa or imprisonment of not more than five	e statement made in this assignment with declaration is punishable unde years, or both.	r 18 USC 1001 by fine
Authorization To Permit Access To A	lication by Participating Office	
(JPO), the Korean Intellectual Property property offices in which a foreign appl patent application. See 37 CFR 1.14(c)	rants the USPTO authority to provide the European Patent Office (EPO Office (KIPO), the World Intellectual Property Office (WIPO), and any other ation claiming priority to the above—identified application is filed access to ad (h). This box should not be checked if the applicant does not wish the a foreign application claiming priority to the above—identified application	er intellectual to the above–identified EPO, JPO, KIPO, or
identified patent application-as-filed, 2 119(a)-(d) if a copy of the foreign appl	cess will be provided to a copy of the application—as—filed with respect t ny foreign application to which the above—identified application claims pu tion that satisfies the certified copy requirement of 37 CFR 1.55 has be .S. application—as—filed from which benefit is sought in the above—identif	riority under 35 USC en 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	Tomoya SALTO			
Inventor's Signature	June	Suit	Date April	18,2017
Legal Name of Additional I	nventor, If Any	Masamichi FUJITO		
Inventor's Signature	Masamic	hi FUJITC	Date April	18,2017
Legal Name of Additional I	nventor, If Any	Koichi ANDO		
Inventor's Signature			Date	
Legal Name of Additional I	nventor, <b>If</b> Any	Takashi HASHIMOTO		
Inventor's Signature			Date	

Docket No.: Only After Sept 16, 2012

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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 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

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	Tomoya SAITU					
Inventor's Signature		·	Date_			
Legal Name of Additional I	nventor, If Any	Masamichi FUJITO				
Inventor's Signature			Date_			
Legal Name of Additional I	nventor, If Any	Koichi ANDO				
Inventor's Signature	Korchi	ando	Date_	April	18	2017
Legal Name of Additional In	nventor, If Any	Takashi HASHIMOTO				
Inventor's Signature	Takash	Hashimoto	Date_	April	18,	2017

Docket No.: Only After Sept 16, 2012

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

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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 neces 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:	
	IMAGE PICKUP DEVICE
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 original joint inventor of a claimed invention in the application.
I have reviewed and understand the co	ontents of the application for which this assignment with declaration is being submitted.
I am aware of the duty to disclose to t	he Office all information known to me to be material to patentability as defined in 37 CFR 1.56.
I hereby acknowledge that any willful for imprisonment of not more than five	alse 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 app patent application. See 37 CFR 1.14(c)	y grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (VIPO), the World Intellectual Property Office (WIPO), and any other intellectual lication 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 ich a foreign application claiming priority to the above-identified application is filed to have
identified patent application-as-filed, 2	access will be provided to a copy of the application-as-filed with respect to: 1) the above- 2) any foreign application to which the above-identified application claims priority under 35 USC instrument 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 Fumihide MURAO

Inventor's Signature

Funihide Merras Date May 22,2017