Form PTO-1598 (Rev. 06-12) OMB No. 0651-0027 (exp. 04/30/2015) U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

PATENTS ONLY					
To the Director of the U.S. Patent and Trademark Office; Please record the attached documents or the new address(es) below.					
Name of conveying party(ies)	Name and address of receiving party(les) Name: Renesas Electronics Corporation				
1) Hîroyuki Takahashî; 2) Masahiro Yoshida	Internal Address:				
Additional name(s) of conveying party(les) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) October 7, 2013	Street Address: 1753, Shimonumabe, Nakahara-ku				
Assignment Merger Security Agreement Change of Name	City: Kawasaki-shi				
Joint Research Agreement Government Interest Assignment	State: Kanagawa Country: Japan Zip: 211-8668				
Executive Order 9424, Confirmatory License Corrective againment to correct the sessignment decument previously recorded at Real 031658 and frame 0683 Otherand the assignor's hereby confirmed the assignment	Additional name(s) & address(es) attached? Yes No document serves as an Oath/Declaration (37 CFR 1.63).				
4. Application or patent number(s): A. Patent Application No.(s)	B. Patent No.(s)				
14/069,056					
Additional numbers a					
5. Name and address to whom correspondence concerning document should be mailed: Name: Sean McGinn, Esq.	6. Total number of applications and patents involved: 1				
Internal Address: McGinn Intellectual Property Law	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 Authorized to be charged to deposit account				
Group, PLLC Street Address: 8321 Old Courthouse Road	Enclosed None required (government interest not affecting title)				
Suite 200 City: Vienna	8. Payment Information				
State: Virginia Zip: 22182-3817	_				
Phone Number: 703 761 4100 Docket Number: NCL12077US Email Address: admin@mcginniplaw.com	Deposit Account Number 50-0481(deficiencies only) Authorized User Name Sean M. McGinn				
9, Signature:	December 6, 2013				
Signature Sean McGinn, Esq. Name of Person Signing	Total number of pages including cover sheet, attachments, and documents: sheet, attachments, and documents: seet) should be faxed to (571) 273-0140, or mailed to: or of the USPTO, P.O.Box 1460, Alexandria, V.A. 22313-1450				

PATENT REEL: 031996 FRAME: 0965 Porm PTO-1595 (Rev. 06-12) OMB No. 0651-0027 (exp. 04/30/2015)

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To the Director of the U.S. Patent and Trademark Office: Plea	ase record are accorded opening or the new address(66) below.
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1) Hiroyuki Takahashi; 2) Masahiro Yoshida	Internal Address:
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Government Interest Assignment	State: Kanagawa
Executive Order 9424, Confirmatory License	Country: Japan Zip: 211-8668
Other	Additional name(s) & address(es) attached? Yes No
4. Application or patent number(s): A. Patent Application No.(s)	document serves as an Oath/Declaration (37 CFR 1.63) B. Patent No.(s)
14/069,056	
Additional numbers a	itached? Yes No
5. Name and address to whom correspondence concerning document should be mailed: Name; Sean McGinn, Esq.	6. Total number of applications and patents involved: 1
Internal Address: McGinn Intellectual Property Law	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00
Group, PLLC	Authorized to be charged to deposit account
Street Address: 8321 Old Courthouse Road Suite 200	Enclosed None required (government interest not affecting title)
City: Vienna	8. Payment Information
State: Virginia Zip: 22182-3817]
Phone Number: 703 761 4100	Deposit Account Number 50-0481(deficiencies only)
Docket Number: NCL12077US	Coposit / today it (10) iliasi
Email Address: admin@rncginnlplaw.com	Authorized User Name Sean M. McGinn
3. Signature:	November 1, 2013
Signature Sean McGinn, Esq. Name of Person Signing	Total number of pages including cover
	sheet, attachments and documents: 17/05/2013 KN697EN1 89998918 1486 9956

REEL: 031996 FRAME: 0966

Combined Declaration of Inventorship and Assignment of Application for Patent

As a below-named inventor, I hereby declare that:

which would conflict with this Assignment and sale;

I believe that I am the original inventor or an original joint inventor, of the claimed invention in the Application entitled;

SEMICONDUCTOR STORAGE APPARATUS

	4
the specification of which (check one): _X is attached hereto _ was filed as U. S. Application No. or PCT International Application No	on
The Application was made or was authorized to be made by me. I hereby acknowled made in this Declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not I have reviewed and understand the contents of the Application, including the claims, and I am the U.S.P.T.O. all information known to be material to patentability as defined in 37 CFR §	more than five (5) years, or both. a aware of the duty to disclose to
The below-named inventor (hereinafter referred to as ASSIGNOR) having invented and ow invention which is the subject of the Application, and	ning a certain and new and usefu
Renesas Electronics Corporation (Full Name of As:	signee)
1753, Shimonumabe, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8668, Japan	(Address of Assignee)
(hereinafter referred to as ASSIGNEE), being desirous of acquiring the entire right, title, and invention which is the subject of the Application and the United States Letters Patent to be ob	
NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that in considerate to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledge consideration, ASSIGNOR, by these presents, hereby sells, assigns and transfers to ASSIGNI title and interest to said invention and all Letters Patent of the United States to be obtained the continuation, division, renewal, substitute or reissue thereof for the full term or terms for which	d, and for other good and valuable EE the entire and exclusive right, erefor on said Application or any
ASSIGNOR hereby authorizes and requests Sean M. McGinn of McGinn Intellectual Propert Courthouse Road, Suite 200, Vienna, Virginia, U.S.A. 22182-3817 to insert here in parenthes 14/069,056, filed October 31, 2013) the filing date and Application number of said App	es (Application No.
ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to United States Patent obtained therefor on said Application or any continuation, division, rene for the full term or terms to said ASSIGNEE, of the entire right, title, and interest in and to the behoof, and for the use and behoof of his legal representatives, to the full end of the term or to obtained therefor on said Application or any continuation, division, renewal, substitute or reis full and entirely as the same would have been held by ASSIGNOR had this Assignment and said and entirely as the same would have been held by ASSIGNOR had this Assignment and said and entirely as the same would have been held by ASSIGNOR had this Assignment and said and entirely as the same would have been held by ASSIGNOR had this Assignment and said and entirely as the same would have been held by ASSIGNOR had this Assignment and said and entirely as the same would have been held by ASSIGNOR had this Assignment and said and the said and the same would have been held by ASSIGNOR had the same woul	wal, substitute or reissue thereof e same, for his sole use and erms for which said Letters Patent sue thereof for may be granted, as

Combined Declaration of Inventorship and Assignment of Application for Patent (Page 1 of 2)

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into

PATENT REEL: 031996 FRAME: 0967 ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain and enforce said application, said invention and said Letters Patent which may be necessary or desirable to carry out the purposes hereof.

Legal Name of Inventor _	Hiroyuki	TAKAHASHI_						
Inventor's Signature	diroyuki	Takahn	hi	Date	October	7.	2013	
Legal Name of Inventor	Masahiro	YOSHIDA						•
·		Joshuda		Date	October	7,	2013	

Combined Declaration of Inventorship and Assignment of Application for Patent (Page 2 of 2)

Combined Declaration of Inventorship and Assignment of Application for Patent

As a below-named inventor, I hereby declare that:

I believe that I am the original inventor or an original joint inventor, of the claimed invention in the Application entitled:

SEMICONDUCTOR STORAGE APPARATUS

the specification of which (check one): X is attached hereto
was filed as U. S. Application No. or PCT International Application No on
The Application was made or was authorized to be made by me. I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both. I have reviewed and understand the contents of the Application, including the claims, and I am aware of the duty to disclose to the U.S.P.T.O. all information known to be material to patentability as defined in 37 CFR §1.56.
The below-named inventor (hereinafter referred to as ASSIGNOR) having invented and owning a certain and new and useful invention which is the subject of the Application, and
Renesas Electronics Corporation (Full Name of Assignee)
1753, Shimonumabe, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8668, Japan (Address of Assignee)
(hereinafter referred to as ASSIGNEE), being desirous of acquiring the entire right, title, and interest in, to and under the invention which is the subject of the Application and the United States Letters Patent to be obtained therefor.
NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that in consideration of the payment of ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR, by these presents, hereby sells, assigns and transfers to ASSIGNOR the entire and evaluative graph

title and interest to said invention and all Letters Patent of the United States to be obtained therefor on said Application or any continuation, division, renewal, substitute or reissue thereof for the full term or terms for which the same may be granted.

ASSIGNOR hereby authorizes and requests Sean M. McGinn of McGinn Intellectual Property Law Group, PLLC, 8321 Old Courthouse Road, Suite 200, Vienna, Virginia, U.S.A. 22182-3817 to insert here in parentheses (Application No. 25/069,056, filed October 31, 2013) the filing date and Application number of said Application when/if known.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States Patent obtained therefor on said Application or any continuation, division, renewal, substitute or reissue thereof for the full term or terms to said ASSIGNEE, of the entire right, title, and interest in and to the same, for his sole use and behoof, and for the use and behoof of his legal representatives, to the full end of the term or terms for which said Letters Patent obtained therefor on said Application or any continuation, division, renewal, substitute or reissue thereof for may be granted, as full and entirely as the same would have been held by ASSIGNOR had this Assignment and sale not been made.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment and sale;

> Combined Declaration of Inventorship and Assignment of Application for Patent (Page 1 of 2)

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain and enforce said application, said invention and said Letters Patent which may be necessary or desirable to carry out the purposes hereof.

Legal Name of Inventor <u>Hiroyuki TAKAHASHI</u>		
Inventor's Signature Idinoyuki Tabahashi	Date October 7,	2013
Legal Name of Inventor Masahiro YOSHIDA	· · · · · · · · · · · · · · · · · · ·	
Inventor's Signature Masshire Yoshada	Date October 7,	2013

Combined Declaration of Inventorship and Assignment of Application for Patent (Page 2 of 2)

PATENT REEL: 031996 FRAME: 0970

RECORDED: 12/06/2013