

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Renasas Electronics Corporation	11/11/2010
RECEIVING PARTY DATA	
Name:	DRAM Memtech LLC
Street Address:	6136 Frisco Square Blvd
Internal Address:	Suite 385
City:	Frisco
State/Country:	TEXAS
Postal Code:	75034
PROPERTY NUMBERS Total: 9	
Property Type	Number
Patent Number:	5465063
Patent Number:	5691661
Patent Number:	5905690
Patent Number:	6049488
Patent Number:	6515934
Patent Number:	6570815
Patent Number:	6724686
Patent Number:	6522599
Patent Number:	6765838
CORRESPONDENCE DATA	
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OP \$360.00 5465063

501349201

PATENT
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ATTORNEY DOCKET NUMBER:	RENASAS DRAM
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NAME OF SUBMITTER:	Clay McGurk
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Total Attachments: 8 source=20101110 Assignment#page1.tif source=20101110 Assignment#page2.tif source=20101110 Assignment#page3.tif source=20101110 Assignment#page4.tif source=20101110 Assignment#page5.tif source=20101110 Assignment#page6.tif source=20101110 Assignment#page7.tif source=20101110 Assignment#page8.tif

ASSIGNMENT

WHEREAS, RENESAS ELECTRONICS CORPORATION, a corporation formed under the laws of Japan, having a place of business at 2-6-2, Ote-machi, Chiyoda-ku, Tokyo 100-0004, Japan hereafter, together with any successors, legal representatives or assigns thereof, called "Assignor") is the owner of the entire right, title, and interest and assignee of the U.S. Patent Nos. listed on Exhibit A attached hereto;

AND WHEREAS, DRAM MEMTECH LLC, a Texas limited liability company having a place of business at 6136 Frisco Square Blvd., Suite 385, Frisco, Texas 75034 (hereafter, together with any successors, legal representatives or assigns thereof, called "ASSIGNEE") wants to acquire the entire right, title and interest in and to said U.S. Patent Nos. listed on Exhibit A attached hereto, and all the inventions therein, and Assignor is willing to enter into such assignment.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) in hand paid and other good and valuable consideration the receipt of which from ASSIGNEE is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to the U.S. Patent Nos. listed on Exhibit A attached hereto, and all continuations, divisionals, reexaminations, reissues and substitutes thereof, all inventions therein, including without limitation all rights to claim priority on the basis thereof, and any and all applications for patents which are or may hereafter be filed for this invention in any foreign country and all patents which may be granted on these inventions in any foreign country, and all extensions, renewals, and reissues thereof; and including without limitation, all rights to sue for past, present and future infringement, including the right to collect and receive any damages, royalties, or settlements for such infringements, all rights to sue for injunctive or other equitable relief, and any and all causes of action relating to any of the inventions or discoveries thereof;

Assignor hereby covenants that it has full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreement in conflict with this Assignment;

Assignor hereby further covenants and agrees that it will communicate to ASSIGNEE any and all facts known to it respecting said patents, and testify in any legal proceeding, sign all lawful papers, execute and deliver all papers and take any actions that may be necessary or desirable to perfect the title to any aforementioned patents and inventions, execute all divisional, continuation, reexamination, reissue and substitute applications, and make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for said inventions in all countries.

ASSIGNMENT

IN TESTIMONY WHEREOF, I hereunto set my hand this 11th day of November, 2010.

RENESAS ELECTRONICS CORPORATION
(Assignor)

By

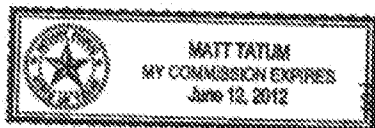
Name HIROAKI SEKI

Title GENERAL MANAGER

STATE OF Texas)
COUNTY OF Dallas)

On 11-11-10, before me Matt Tatum, Notary Public, personally appeared Hiroaki Seki, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



[Signature]
Signature of Notary

EXHIBIT A

U.S. PATENTS & APPLICATIONS

Family #	US Patent No.	US Application No.	Filing Date	Issue Date	Title
Family 1	*4880799	7459992	1/4/1990	12/25/1990	ELECTROSTATIC CDRAMITY DEVICE IN SEMICONDUCTOR MEMORY DEVICE, AND APPARATUS FOR AND METHOD OF DRIVING SENSE AMPLIFIER USING ELECTROSTATIC CDRAMITY DEVICE
Family 2	5485083	8049398	4/21/1993	11/7/1995	PULSE GENERATING CIRCUIT WITH TEMPERATURE COMPENSATION
Family 2	5891861	8458773	6/2/1995	11/25/1997	PULSE GENERATING CIRCUIT AND A SEMICONDUCTOR MEMORY DEVICE PROVIDED WITH THE SAME
Family 3	*5728850	8779829	1/7/1997	3/10/1998	SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE PERFORMING INPUT/OUTPUT OF DATA IN A CYCLE SHORTER THAN AN EXTERNAL CLOCK SIGNAL CYCLE
Family 4	*5751655	8788803	1/23/1997	5/12/1998	A SYNCHRONOUS TYPE SEMICONDUCTOR MEMORY DEVICE HAVING INTERNAL OPERATION TIMINGS DETERMINED BY COUNT VALUES OF AN INTERNAL COUNTER
Family 5	*5818788	8767496	12/16/1996	10/6/1998	OPERATION MODE SETTING CIRCUIT BY SEMICONDUCTOR DEVICE
Family 6	5805880	9058987	4/13/1998	5/18/1999	SYNCHRONOUS SEMICONDUCTOR DEVICE HAVING CIRCUITRY CAPABLE OF SURELY RESETTING TEST MODE
Family 7	*5991232	9143253	8/28/1998	11/23/1999	CLOCK SYNCHRONOUS MEMORY EMBEDDED SEMICONDUCTOR INTEGRATED CIRCUIT DEVICE
Family 8	6048488	9122762	7/27/1998	4/11/2000	CLOCK SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE CAPABLE OF PREVENTING OUTPUTTING OF INVALID DATA
Family 9	*6301187	9226064	1/6/1999	10/9/2001	SYNCHRONOUS TYPE SEMICONDUCTOR MEMORY DEVICE PERMITTING REDUCTION IN RATIO OF AREA OCCUPIED BY CONTROL CIRCUIT IN CHIP AREA
Family 10	*6310815	9131346	8/7/1998	10/30/2001	MULTI-BANK SEMICONDUCTOR MEMORY DEVICE SUITABLE FOR INTEGRATION WITH LOGIC
Family 11	*6345348	8798950	2/11/1997	2/5/2002	MEMORY SYSTEM CAPABLE OF SUPPORTING DIFFERENT MEMORY DEVICES AND A MEMORY DEVICE USED THEREFOR
Family 12	*6359803	9759319	1/16/2001	3/19/2002	Semiconductor memory device that can access two regions alternately at high speed

* EXPIRED OR ABANDONED

Family #	US Patent No.	US Application No.	Filing Date	Issue Date	Title
Family 13	*6414881	9876078	6/8/2001	7/2/2002	SEMICONDUCTOR DEVICE CAPABLE OF GENERATING INTERNAL VOLTAGE EFFECTIVELY
Family 14	*6452861	9981811	10/19/2001	9/17/2002	SEMICONDUCTOR MEMORY DEVICE ALLOWING SIMULTANEOUS INPUTTING OF N DATA SIGNALS
Family 15	6515834	9986973	11/13/2001	2/4/2003	SEMICONDUCTOR DEVICE INCLUDING INTERNAL POTENTIAL GENERATING CIRCUIT ALLOWING TUNING IN SHORT PERIOD OF TIME AND REDUCTION OF CHIP AREA
Family 15	*6331982	9489474	1/21/2000	12/18/2001	Semiconductor device including voltage down converter allowing tuning in short period of time and reduction of chip area
Family 16	6570815	9973886	10/11/2001	5/27/2003	SEMICONDUCTOR MEMORY DEVICE CAPABLE OF ADJUSTING PHASE OF OUTPUT DATA AND MEMORY SYSTEM USING THE SAME
Family 17	6724686	10339288	1/10/2003	4/20/2004	OPERABLE SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE SWITCHING BETWEEN SINGLE DATA RATE MODE AND DOUBLE DATA RATE MODE
Family 17	6522588	10025857	12/26/2001	2/18/2003	OPERABLE SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE SWITCHING BETWEEN SINGLE DATA RATE MODE AND DOUBLE DATA RATE MODE
Family 17	*6337832	9772194	3/18/1999	1/8/2002	OPERABLE SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE SWITCHING BETWEEN SINGLE DATA RATE MODE AND DOUBLE DATA RATE MODE
Family 18	6768838	10209901	8/2/2002	7/20/2004	REFRESH CONTROL CIRCUITRY FOR REFRESHING STORAGE DATA

* EXPIRED OR ABANDONED

FOREIGN PATENTS & APPLICATIONS

Family #	Foreign Patent or Publication No.	Foreign Application Number	Filing Date	Country	Title
Family 1	KR9307282B1	1993-08-04	1990-01-17		ELECTROSTATIC CDRAMITY DEVICE IN SEMICONDUCTOR MEMORY DEVICE AND APPARATUS FOR AN METHOD OF DRIVING SENSE AMPLIFIER USING ELECTROSTATIC CDRAMITY DEVICE
Family 1	JP10074908A2	1998-03-17	1997-07-07		SEMICONDUCTOR STORAGE DEVICE
Family 1	JP10070254A2	1998-03-10	1997-07-07		SEMICONDUCTOR MEMORY
Family 1	JP03337621B2	2002-10-21	1997-07-07		
Family 1	JP03163040B2	2001-05-08	1989-04-10		
Family 1	JP02721909B2	1998-03-04	1989-04-10		HANDOTAIKIOKUSOCHI
Family 1	JP02276088A2	1990-11-09	1989-04-10		SENSE AMPLIFIER DRIVING DEVICE AND ELECTROSTATIC CDRAMITY ELEMENT FOR SEMICONDUCTOR STORAGE DEVICE
Family 1	DE4001340C2	1994-01-20	1990-01-18		Leseverstaerkertreiberanlage, Verfahren zum Betreiben einer Leseverstaerkertreiberanlage und Kapazitaetseinrichtung zur Benutzung in einer Halbleiterspeichereinrichtung
Family 1	DE4001340A1	1990-07-19	1990-01-18		Leseverstaerkertreiberanlage, Verfahren
Family 2	KR0165755B1	1999-03-20	1993-07-23		PULSE SIGNAL GENERATOR AND SEMICONDUCTOR MEMORY APPARATUS
Family 2	JP06060648A2	1994-03-04	1992-08-07		PULSE SIGNAL GENERATING CIRCUIT AND SEMICONDUCTOR STORAGE DEVICE
Family 2	JP02787639B2	1998-08-20	1992-08-07		PARUSUSHINGOHATSUSEIKAIRO OYOBIHANDOTAIKIOKUSOCHI
Family 2	DE4314321C2	1995-04-06	1993-04-30		Impulsignal-Erzeugungsschaltung und Verwendung derselben in einer Halbleiterspeichereinrichtung
Family 2	DE4314321A1	1994-02-10	1993-04-30		Impulserzeugungsschaltung und Halbleiterspeichereinrichtung mit dieser Impulserzeugungsschaltung
Family 3	JP09231743A2	1997-09-05	1996-02-22		SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE AND TESTING METHOD
Family 4	KR0241841B1	2000-02-01	1997-02-22		SYNCHRONOUS SEMICONDUCTOR MEMORY DEVICE
Family 4	JP09288889A2	1997-11-04	1996-04-		SYNCHRONOUS TYPE

Family #	Foreign Patent or Publication No.	Foreign Application Number	Filing Date	Country	Title
			22		SEMICONDUCTOR STORAGE DEVICE
Family 4	JP04014669B2	2007-11-28	1996-04-22		
Family 5	KR0233357B1	1999-12-01	1996-12-19		OPERATION MODE SETTING CIRCUIT IN SEMICONDUCTOR DEVICE
Family 5	JP09167483A2	1997-06-24	1995-12-19		OPERATION MODE SETTING CIRCUIT
Family 5	DE19651248B4	2005-04-14	1996-12-10		Betriebsmodussetzschaltung in einer Halbleitereinrichtung
Family 5	DE19651248A1	1997-06-26	1996-12-10		Betriebsmodussetzschaltung in einer Halbleitereinrichtung
Family 5	CN1156334A	1997-08-06	1996-12-19		SET CIRCUIT FOR OPERATION MODE OF SEMICONDUCTOR DEVICE
Family 5	CN1089489C	2002-08-21	1996-12-19		Set circuit for operation mode of semiconductor device
Family 6	TW0392167B	2000-06-01	1998-05-20		SYNCHRONOUS SEMICONDUCTOR STORAGE DEVICE
Family 6	JP11149771A2	1999-06-02	1997-11-14		SYNCHRONOUS SEMICONDUCTOR STORAGE DEVICE
Family 6	JP04141520B2	2008-08-27	1997-11-14		
Family 6	CN1217545A	1999-03-26	1998-07-10		SYNCHRONOUS SEMICONDUCTOR STORAGE DEVICE HAVING CIRCUIT CAPABLE OF RELIABLY RESETTING DETECTION MEANS
Family 6	CN1107958C	2003-05-07	1998-07-10		Synchronous semiconductor storage device having circuit capable of reliably resetting detection means
Family 7	TW0394873B	2000-06-21	1998-08-28		Clock synchronous memory embedded semiconductor integrated circuit device
Family 7	JP11219600A2	1999-08-10	1998-02-03		SEMICONDUCTOR INTEGRATED CIRCUIT DEVICE
Family 7	DE19844703A1	1999-08-05	1998-09-29		Integrierte Halbleiterschaltungsvorrichtung
Family 8	TW0394946B	2000-06-21	1998-08-18		SEMICONDUCTOR MEMORY DEVICE
Family 8	JP11213663A2	1999-08-06	1998-01-23		SEMICONDUCTOR MEMORY DEVICE
Family 8	JP04057125B2	2008-03-05	1998-01-23		
Family 8	DE19840237A1	1999-07-29	1998-09-03		Taktsynchrone Halbleiterspeichervorrichtung, die die Ausgabe ungeueltiger Daten verhindern kann
Family 9	JP2000021169A 2	2000-01-21	1998-07-22		SYNCHRONOUS SEMICONDUCTOR MEMORY

Family #	Foreign Patent or Publication No.	Foreign Application Number	Filing Date	Country	Title
					DEVICE
Family 10	KR2023844A	2002-03-29	2001-12-22		MULTI-BANK SEMICONDUCTOR MEMORY DEVICE SUITABLE FOR INTEGRATION WITH LOGIC
Family 10	JP11195766A2	1999-07-21	1998-04-08		SEMICONDUCTOR INTEGRATED CIRCUIT DEVICE
Family 10	DE19837016A1	1999-05-06	1998-08-14		Integrierte Halbleiterschaltungsvorrichtung
Family 11	TW0380221B	2000-01-21	1996-12-27		MEMORY SYSTEM AND SEMICONDUCTOR MEMORY DEVICE USED IN THE MEMORY SYSTEM
Family 11	KR0262030B1	2000-07-15	1997-02-24		MEMORY SYSTEM AND SEMICONDUCTOR MEMORY DEVICE USED THEREFOR
Family 11	JP09293015A2	1997-11-11	1996-04-24		MEMORY SYSTEM AND SEMICONDUCTOR STORAGE DEVICE USED THEREIN
Family 12	TW0516036B	2003-01-01	2001-03-14		Semiconductor memory device
Family 12	KR2007971A	2003-01-29	2001-03-16		SEMICONDUCTOR MEMORY
Family 12	JP2002032985A2	2002-01-31	2000-07-18		SEMICONDUCTOR MEMORY
Family 13	KR2018943A	2002-03-09	2001-07-13		SEMICONDUCTOR DEVICE
Family 13	JP2002074956A2	2002-03-15	2000-09-04		SEMICONDUCTOR DEVICE
Family 13	DE10134018A1	2002-05-08	2001-07-12		Halbleitervorrichtung, die eine interne Spannung wirksam erzeugen kann
Family 14	TW0540049B	2003-07-01	2001-12-20		Semiconductor memory device
Family 14	KR2083109A	2002-11-01	2001-12-22		SEMICONDUCTOR MEMORY
Family 14	JP2002319299A2	2002-10-31	2001-04-24		SEMICONDUCTOR MEMORY
Family 14	DE10153892A1	2002-11-07	2001-11-02		Halbleiterspeichervorrichtung zur gleichzeitigen Eingabe von N Datensignalen
Family 15	JP2003152092A2	2003-05-23	2002-06-04		SEMICONDUCTOR DEVICE
Family 15	JP2001035199A2	2001-02-09	1999-07-26		SEMICONDUCTOR DEVICE
Family 15	JP04229636B2	2009-02-25	2002-06-04		
Family 16	KR3009030A	2003-01-29	2001-12-15		SEMICONDUCTOR MEMORY DEVICE, MEMORY SYSTEM AND MEMORY MODULE
Family 16	JP2002324398A2	2002-11-08	2001-04-25		SEMICONDUCTOR MEMORY DEVICE, MEMORY SYSTEM AND MEMORY MODULE

Family #	Foreign Patent or Publication No.	Foreign Application Number	Filing Date	Countr y	Title
Family 17	JP2000067577A 2	2000-03-03	1998-10- 14		SYNCHRONOUS SEMICONDUCTOR MEMORY
Family 18	TW0564421B	2003-12-01	2002-07- 31		Semiconductor memory device
Family 18	KR3035836A	2003-05-09	2002-08- 07		SEMICONDUCTOR MEMORY
Family 18	JP2003132677A 2	2003-05-09	2001-10- 29		SEMICONDUCTOR MEMORY
Family 18	DE10233250A1	2003-05-15	2002-07- 22		Halbleiterspeichervorrichtung
Family 18	CN1416137A	2003-05-07	2002-08- 07		SEMICONDUCTOR MEMORY
Family 18	CN1242414C	2006-02-15	2002-08- 07		Semiconductor memory

For FOREIGN PATENTS & APPLICATIONS, the latest status has not been confirmed.