4/05/05

Substitute for Form PTO-1595	04-15-20			MENT OF COMMERCE	
		Atto	rney's Docket No.	Docket No. 030682-129	
To the Director of the United Stat	10298194	.9 attache	ed original documents or	copy thereof.	
	azuyuki KAWAMOTO obutaka IMANISHI tached?	2. Name and address of	f receiving party(ies): fechnology Corp.	113009 U.S. PTO 11/098533	
Execution Date: March 22, 2005 4. Application number(s) or patent number this document is being filed together.			& addresses attached?	Yes 🔀 No	
A. Patent Application No.(s)		B. Patent No.(s)			
Name and address of party to whom concerning document should be mail		Yes No 3. Total number of applic	cations and patents in	volved: 1	
Name: Platon N. Mandros	<u> </u>	7. Total fee (37 CFR 3.4			
Address: Burns, Doane, Swecker & M Customer Number 2 1 8 3 9 P.O. Box 1404 Alexandria, Virginia 22313-1	lathis, L.L.P.	☐ Enclosed☑ Authorized to	be charged to deposi Form PTO-2038 is atta 	ached.	
	DO NOT USE	THIS SPACE			
9. Statement and Signature. To the best of my knowledge and belief of the original document. Platon N. Mandros Name of Person Signing	22,124 Reg. No.	Signature	8 NO 32137	April 5, 2005	
Total number of pages	including cover sheet, attachm	nents, and documents:	3		
	uments to be recorded with lates Patent and Trademark O P.O. Box 1450 / Alexa	ffice / Mail Stop Assignm		es	

PATENT REEL: 016452 FRAME: 0103

ASSIGNMENT

THIS ASSIGNMENT, by: Yutaka TAKIKAWA, Koichi KAWAUCHI, Satoko KAMAKURA, Kazuo NOMURA, Kazuyuki KAWAMOTO and Nobutaka IMANISHI, all of c/o Renesas ISI Design Corporation, 1-17, Chuo 3-chome, Itami-shi, Hyogo 664-0851 Japan (hereinafter referred to as "the Assignor(s)"), respectively, witnesseth: WHEREAS, the Assignor(s) has(have) invented certain new and useful improvements in: SEMICONDUCTOR MEMORY set forth in an application for Letters Patent of the United States, [] which is a provisional application to he filed herewith; [x] which is a non-provisional application having an oath or declaration executed on even date herewith prior to filing of application; [] bearing Application ____ ,and filed on_ WHEREAS, Renesas Technology Corp.
a corporation duly organized under and pursuant to the laws of Japan and having its principal place of business at: 4-1, Marunouchi 2-chome, Chiyoda-ku, TOKYO JAPAN (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor(s) has(have) sold, assigned, transferred, and set over, and by these presents does(do) sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor(s) had this sale and assignment not been made;

interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters

Patent or Patents, United States or foreign, to be obtained therefor and thereon.

PATENT REEL: 016452 FRAME: 0104

Application			
Attorney's D	ocket 1	No	030682-129

AND for the same consideration, the Assignor(s) hereby covenant(s) and agree(s) to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor(s) is(are) the sole and lawful owner(s) of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignor(s) has(have) good and full right and lawful authority to sell and convey the same in the manner herein set forth:

AND for the same consideration, the Assignor(s) hereby covenant(s) and agree(s) to and with the Assignee, its successors, legal representatives, and assigns that the Assignor(s) will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation—in—part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns,

AND the Assignor(s) hereby authorize(s) and request(s) the attorneys of BURNS, DOANE, SWECKER & MATHIS, L.L.P. of Alexandria, Virginia, to insert in the spaces provided above the filing date, application number, and attorney docket number of said application when known.

AND the Assignor(s) hereby request(s) the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee, as the Assignee of said inventions and the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date_	March 22, 2	005	Name	of	Assignor_	Yutaka	Takikawa
						Yutaka TA	
Date_	March 22, 2	005	Name	of	Assignor_		
						Koichi KA	WAUCHI
Date_	March 22, 2	005	Name	of	Assignor_	Satoko	Kamakura
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Date_	March 22, 2	005	Name	of	Assignor_	Kazuo	NOMURA
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Date_	March 22,	2005	Name	of	Assignor_	Kazuyuk	KAWAMOTO
						Kazuyuki	KAWAMOTO
Date_	March 22, 20	005	Name	of	Assignor_	Nobutak	a IMANISHI
						Nobutaka	IMANISHI
Date_			Name	of	Assignor_		_
Date_	·		Name	of	Assignor_		

RECORDED: 04/05/2005

PATENT REEL: 016452 FRAME: 0105