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Nobuhiko ITO (11/08/2004), Kaoru YAMAMOTO (11/08/2004), and Yoshimitsu YAMAUCHI (11/08/2004) Execution Date(s): in parentheses after inventor name	2. Name and address of receiving party(ies)  Name: SHARP KABUSHIKI KAISHA  Internal Address:  Street Address:
Additional name(s) of conveying party(ies) attached? Yes X No	22-22, Nagaike-cho, Abeno-ku
3. Nature of Conveyance:  X Assignment Merger	Street Address:  22-22, Nagaike-cho, Abeno-ku
Security Agreement Change of Name	City: Osaka-shi
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Other	Additional name(s) & address(es) Yes X No attached:
A. Application or patent number(s):     X     A. Patent Application No.(s)  Additional numbers attached?	This document is being filed together with a new application.  B. Patent No.(s)  Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Charles D. Holland MORRISON & FOERSTER LLP Internal Address: Atty. Dkt.: 559502002600 Street Address: 755 Page Mill Road	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00  Authorized to be charged by credit card  X Authorized to be charged to deposit account  Enclosed  None required (government interest not affecting title)
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12/29/2004 ECDOPER 00000169 031952 11013119 01 FC:8021 40.00 DA

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Name of Person Signing

December 14, 2004 Date

3

Total number of pages including cover sheet, attachments, and documents:

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m:1 - 1

## **ASSIGNMENT**

		Application No	
Insert Name(s) of Inventor(s)	<b>→</b>	WHEREAS, _	Nobuhiko ITO
or inventor(s)			Kaoru YAMAMOTO
			Yoshimitsu YAMAUCHI
		(hereinafter designated	d as the undersigned) has (have) invented certain new and useful improvements in
Insert Title of Invention		SEMICONDUC	CTOR READOUT CIRCUIT
		for which an application	on for Letters Patent of the United States of America has been executed by the undersigned
Insert Date of Signing of Application	<b>→</b>	on	; and
Insert Name of Assignee	<b>→</b>	WHEREAS, _	SHARP KABUSHIKI KAISHA
Insert Address of Assignee	<b>→</b>		aike-cho, Abeno-ku, Osaka-shi, Osaka 545-8522 Japan
CHECK BOX	<b>→</b>	entire right, title and in the United States of A	
a rathornate		■ in any and all foreign NOW. THEREF	on countries.  ORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the
			ehy acknowledged and other good and valuable consideration the undersigned has (have) sold

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assigned and transfer unto said Assignee the fill and exclusive right to the said invention in the United Sates of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

pa-819372

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division or reissue thereof or Letters Patent(s) or reissue patent issue thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) the request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Morrison & Foerster LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

Date November 8, 2004,	Name of Inventor _	Nobuhiko ITO
Date November 8, 2004,	Name of Inventor _	Kaoru Yamamota Kaoru YAMAMOTO
Date November & Zook	Name of Inventor _	Yoshimitsu Yamauchi Yoshimitsu YAMAUCHI
Date,	Name of Inventor _	·
Date,	Name of Inventor _	
Date,	Name of Inventor _	

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RECORDED: 12/14/2004